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**The 12th Benjamitra Network, National and International Academic
Conference**

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Report on the Inaugural Ceremony
The 12th Benjamitra Network, National and International Academic
Conference
“Challenges in the New Era of Public Health Education to Develop
Health Professionals” (online)
On Wednesday 25th May 2022
At the Rajapruk University, Bang Kruai District, Nonthaburi
Province

Mr President:

I'm Dr.Suntaya Choosup, Vice President of Rajapruk University, on behalf of the organizing committee and participants at the Benjamitra Network, national and international academic conference, I would like to thank Mr President for being honored to preside over the opening ceremony of the National and International Academic Conference today. The conference has the following objectives:

1. To serve as a national and international platform for academics, researchers, faculties, and students to disseminate their works, to listen and exchange knowledge through academic articles, research articles and various innovations that are beneficial to the development of the country.
2. To create a network of cooperation to develop academic and research progress with educational institutions and organizations both within the country and abroad.

It is realized that the mission of higher education institutions is to conduct research, to create bodies of knowledge in various sciences that affect the development of the country's progress. Higher education institutions in the Benjamitra Academic Network, which consist of 8 institutions including the Thonburi University, North Bangkok University, Bangkok Suvarnabhumi University, Far Eastern University, Southeast Bangkok College, Lampang Inter-Tech College, North-Chiangmai University and Rajapruk University,

Therefore, collaborated to organize the national and international academic conference every year by rotating to host the event. Today's event is the twelfth time hosted by the Rajapruk University. There are academics and researchers from higher education institutions and agencies both within the country and abroad submitted 395 articles to present.

Today's activities: in the morning after the opening ceremony, there will be a special lecture on “Challenges of Public Health Education and Profession” by Dr.Surasak Panichsakul, Senior Consultant and Professor, College of Public Health Sciences, Chulalongkorn University and the 2nd Vice President of the Community Health Council. After that, the Best Paper Award will be announced, and online presentation of articles will be done in 26 rooms. In the afternoon, there will be a special lecture from the First Secretary of the Embassy of Japan in Thailand. Upon

completing all article presentations, the Excellent Presentation Awards will be announced.

Finally, the Rajapruk University would like to thank all administrators of the institutions in the Benjamitra Academic Network, the Council of Public Health, organizing committee, experts who are responsible for screening academic articles, giving feedback and judging today's presentations.

Now is the right time. I would like to invite the President of the Rajapruk University to kindly deliver a welcome speech to all participants and open the academic conference

Please Mr President.

Inaugural Address
**The 12th Benjamitra Network, National and International Academic
Conference**
**“Challenges in the New Era of Public Health Education to Develop
Health Professionals” (online)**
On Wednesday 25th May 2022
**At the Rajapruk University, Bang Kruai District, Nonthaburi
Province**

Presidents of the Institutes in the Benjamitra Academic Network, administrators, faculty members, students and all honorable guests:

I am delighted and honored to preside over the welcoming and opening remarks at the 12th Benjamitra Network, national and international conference under the conceptual framework “Challenges in the New Era of Public Health Education to Develop Health Professionals” today.

The academic conference on this concept raises awareness for educational institutions and society to see the importance of adapting to a new way of life after the pandemic of COVID-19 which is a situation that has occurred rapidly and severely and spread throughout the world.

We need to adapt through changing our behaviors, living, way of thinking, learning, communicating, and living the new normal to stay safe from infection, along with restoring economic and business potential through educational management, and research to create a body of knowledge, inventions, technologies and innovations in the field of education, maintaining hygiene, business operations, management and lifestyle. This is a challenge for educational institutions to promote and support the creation of a body of knowledge and productivity for economic, social, scientific and technological development including innovation and health business in order to apply it to the maximum benefit in driving the country and answering the challenges that Thailand is facing.

I am confident that the academic works presented today will be able to help answer the problems that Thailand is facing right now which will lead to stability, prosperity and sustainability of Thai society

I would like to thank all parties who have collaborated to organize this event, which is beneficial to the nation, the general public, youth and students. I would like to open the conference and wish this event meet all its objectives.

Thank you.

Schedule
**The 12th Benjamitra Network, National and International Academic
Conference**
**“Challenges in the New Era of Public Health Education to Develop
Health Professionals”**
On Wednesday 25th May 2022
**At the Rajapruk University, Bang Kruai District,
Nonthaburi Province, Thailand**

08.00 hrs.	Open the live broadcasting system via Facebook Live and YouTube (RPU Channel)
08.15 – 08.45 hrs.	MC welcomes participants to the national and international academic conferences by watching the opening ceremony and special lectures at Facebook Live and YouTube Live.
08.45 – 09.10 hrs.	Opening ceremony – President, Dr.Anawut Choosup welcomes the chairman and participants of academic conference – Vice President for Administration, Dr.Suntaya Choosup, reports to the President – Presidents of the Institute in the Benjamitra Network taking Photograph with Professor Dr.Surasak Thanipanichsakul, MD.
09.10 – 10.00 hrs.	– Professor Dr. Surasak Thanipanichsakul gives a special lecture
10.10 - 10.20 hrs.	- Announcement of the best article award and details of participation in the event
10.30 – 16.30 hrs.	- Presentation of research results in each group by link and room access code 1. Social Sciences Group 2. Humanities group 3. Business Administration and Economics Group 4. Health Sciences Group 5. Computer Science and Technology Group 6. Engineering group 7. International group

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Relationship of Learning Styles Preferences and Study Habits of The Education Students Majoring in Science to Their Academic Performance

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Abstract

Every individual learns differently by their style of learning and study habits. This study determined the relation of the learning styles and study habits of the Education Students majoring in science to their academic performance in Colegio de Montalban during the school year 2020-2021.

The researchers used the descriptive method as the research design to describe the profile of the respondents in terms of age, sex, and year level. The relationship between learning styles and study habits to the respondents' academic performance was determined through the self-made questionnaire. The research instruments underwent validity and reliability testing from the expert. Hence, it would be valid and assure its consistency and accuracy before the application of the study. The researchers provided 10 samples result, on the reliability statistic, the result of the test by a Cronbach's alpha of 0.860 indicates that the internal consistency of the questions is good and reliable and does not require revision.

The study was conducted on selected 102 Education Students majoring in science possessing different Learning Styles and Study Habits. The researchers concluded the age of the respondents is significantly related to their study habits. Time management is an important facet of a good study habit and requires self-discipline, and discipline was taught and learned at home and school.

This research reveals that there is a significant relationship between study habits and the academic performance of the respondents. Most of the respondents are females and commonly auditory learners. The majority of the respondents fall under the auditory learning style due to the nature of the course which is education, wherein listening and oral instruction are important. Therefore the researchers concluded that there is a significant relationship between the learning styles and academic performance. The researchers recommended that Parents and Teachers to cater the needs of the students by dealing with the student's learning styles and study habits.

Keywords: learning styles preferences, study habits, academic performance

Background and Statement of the problem

Education evolved as time passes as it tried to address the needs of the students in their generation and to be able to adapt to the changes of the emerging technology and industrial revolution. Everyone was seeking success and goals in life thus education was one of the keys to reaching one's goals and aspirations. According to Ratcliffe (2017), education is

the most powerful weapon which you can use to change the world. The academe was continuously discovering and introducing varied teaching strategies to help the learner in achieving quality education.

Loveless (2020) stated that the key to becoming an effective student is learning to study smarter, not harder. A student must develop and discover a certain learning style and study habits that are applicable and effective for them. A certain study habit may be effective and appropriate to one student but not for the others. Students mostly came to an institution with different ethnic and cultural background possessing their learning style preferences.

The development of students' learning styles preferences and study habits would impact not only their academic performances but also career accumulation shortly soon. Students' academic performance is important in every country as it produces the type of graduates that will have a significant impact on society. When a student's academic achievement is poor, it, therefore means that graduates from those schools.

Barbe designed the "VAK" model after investigating the modality strengths of individuals in particular learning styles namely Visual, Auditory, and Kinesthetic. These modalities in learning were discovered after matching an instructor with a student of the same modality strength that higher performance of the student was achieved. Thus, this investigation suggested that Educators should use the students' modality strengths in the instructional planning (as cited by Atkinson, 2017). This model was later developed by Fleming and Mills into "VARK", describing the four modalities of student learning. These different learning styles namely visual learning, auditory learning, reading/writing, and kinesthetic learning were observed for thousands of hours in a classroom setup that enabled students to identify and understand the individual differences in their learning preferences, cited in the University of Kansas (2020).

According to Sherafat and Murthy (2016), study habits and skills like other skills can be taught and learned. It means it could be acquired by experiences or by the willingness of a person to have that particular habit and skill. They also stated that productive study requires conceptualization and intention. It could include some skills such as note-taking, observation, the question, listening, thinking, presented ideas regarding discovering new information. Thus, the learners should be interested in learning and must be able to apply needed skills. In this research, students' study habit was determined by their attention and time management. In achieving one's goal, a student must first succeed the challenges of being a learner that gives importance to their academics. Thus, the researchers would determine if the learning style preferences and study habits have a relationship to the academic performance of the students in Colegio de Montalban.

Statement of the Problem

The study sought to answer the following questions:

1. What are the Study Habits of the Education Students majoring in science in terms of;

- 1.1 focus, and
- 1.2 Time management?
2. What are the Learning Styles Preferences of the Education Students majoring in science in terms of:
 - 2.1 visual
 - 2.2 auditory
 - 2.3 kinesthetic?
3. What is the Academic Performance of the Education students majoring in science?
4. Is there a significant relationship between Study Habits and Academic Performance of Education students majoring in science?
5. Is there a significant relationship between the Learning Styles Preferences and academic performance of the Education students majoring in science?
6. What is the research program proposal to improve the Learning Styles Preferences and Study Habits of the Education Student majoring in science?

Objectives

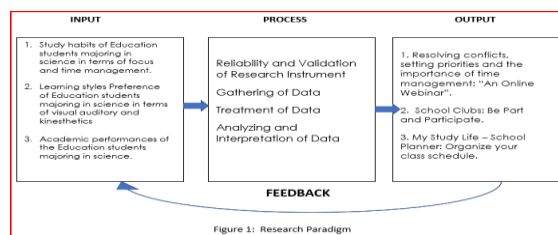
1. To describe the different learning styles preferences and study habits of the Secondary Education major in science and its relation.
2. To determine the relationship between the learning style preferences and study habits of the Secondary Education majors in science to their academic performance.
3. To propose plans on how to develop the students' study habits and learning style preferences.

Theoretical and Conceptual Framework

This study determined the relationship between the learning style preferences, study habits in terms of focus and time management to the academic performance of the education students majoring in science. According to Walberg's (1981) Theory of Educational Productivity, the psychological characteristics of individual students and their immediate environments influence students' cognitive, behavioral, and attitudinal outcomes. This suggests that individual students' attributes and the surrounding psychological environments influence the affective and cognitive learning outcomes of the students. Therefore, learning can be affected by the environment; a good learning environment can develop good learning style preferences and study habits.

Bandura (1986) Social Cognitive Theory emphasized the cognitive aspect of the student. It is said that the mind has an active force that builds one's reality selectively; more information was obtained by the brain, performs behavior-based basis of values and expectations, and also imposes structure on its action. In the said theory, the student's academic achievements were the result of the student's interaction with society with his personality, and because of study behavior; he develops the ability by basing his expectation of the outcome of his actions. Bandura's theory of social cognitive, and Kolb's (1984) theory of Learning Styles, believed that our learning styles emerge due to our genetics, life experiences, and the demands of

our current environment. He also developed the theory of experiential learning where the individual learns through experiences.



The researchers used the Input-Process-Output. Input composed of the following: profile of the respondents in terms of age, sex, and year level, study habits in terms of focus and time management, learning styles preferences in terms of visual, auditory, and kinesthetic, academic performances of the Education students majoring in science. The Process test the relationship between study habits and academic performance, and the relationship between learning style preferences and academic performance. The output includes resolving conflicts, setting priorities, and the importance of time management: An Online Webinar, school clubs: Be Part and Participate, and My Study Life-School Planner: organize your class schedule.

Research Methodology

Research Design

The researchers used the descriptive quantitative method in this study to determine the learning style preference and study habit as it affects the academic performance of the Education students majoring in science in Colegio de Montalban.

Sampling Method

Purposive Random sampling was used in selecting one hundred two (102) respondents from the first year to third-year Education students majoring in science in Colegio de Montalban.

The Subject of the study

The study focused on selected Education students who major in science from the first year to the third year of Colegio de Montalban during the school year 2020 - 2021.

Research Instruments

The researchers used a self-made survey questionnaire to determine the students learning style preferences and study habits. The survey questionnaire consisted of four parts; part I focused on the demographic profile of the respondents which includes the age, the sex, and the year level. Part II focused on the study habits of the respondents consisting of two categories with 10 items each, determining the students' focus and time management. Part III focused on the learning styles of the respondents with three categories consisting of 10 items each are namely visual, auditory, and kinesthetic which lead the researchers to identify the respondents' learning style preferences. Part IV focused on the academic performance of the

respondents consisting of 10 items. The respondents answered the survey according to the five points Likert scale where the respondents specify the level of agreement, giving 5 points as strongly agree, 4 points for agree, 3 points for slightly agree, 2 points for disagree, and 1 point for strongly disagree (see arbitrary scale below). To determine the relationship of learning style preferences and study habits to the academic performance of the respondents, Pearson R correlation was used.

Scale	Rating Equivalent	Range	Verbal Interpretation
5	Strongly Agree	4.21 – 5.00	Highly Preferred
4	Agree	3.41 – 4.20	Slightly Preferred
3	Slightly Agree	2.61 – 3.40	Moderately Preferred
2	Disagree	1.81 – 2.60	Not Preferred
1	Strongly Disagree	1.00 – 1.80	Highly Not Preferred

Validation and Reliability Test

The instrument in this research was self-made and underwent validity and reliability testing from an expert. Hence, it would be valid and assure its consistency and accuracy before the application of the

study. The researchers provided 10 samples. Results were validated by the expert. On the reliability statistic, the result of the test by a Cronbach's alpha was 0.860 indicates that the internal consistency of the questions is good and does not require revision.

Data Gathering Procedure

The study was conducted right after the research instrument was validated by the expert with the guidance of the research adviser to conduct the study. The survey questionnaire was given to the 102 random respondents via Google form since they are not available physically due to the pandemic. The data gathered was tallied, tabulated, and analyzed.

Research Results

The respondents are aged from 18 to 43 and most of them are 19 years old (30%) followed by 21 years old (26%), and the least of the percentage are ages 43 and 23 years old (0.98%). Most of the respondents are 66 female respondents (64.70%) and 36 from male (35.30%). The distribution of year level of the Education students majoring in science where most of the respondents are from third-year students with 42% of the total respondents followed by the first year with 31% of the respondents and the least is the second year with 26% of the respondents.

Statements	Weighted Mean	Verbal Interpretation	Rank
1. I always participate in classroom discussion and activity.	3.91	Agree	3
2. I always have my note-taking during lesson.	3.41	Agree	8
3. I ask my classmates for things I don't understand.	4.04	Agree	1
4. I ask my teachers when I found difficulties in the lesson.	3.25	Slightly Agree	9
5. I ignore distractions during class discussion.	3.48	Agree	7
6. I avoid games, vices and addictions while studying.	3.71	Agree	6
7. I went to library to do my assignments and activities.	2.8	Moderate	10
8. I review my notes minute before our exam.	3.86	Agree	4
9. I keep myself attentive in class discussion.	3.99	Agree	2
10. I remove distractions such as games, movies, chitchats, etc. when reviewing for an exam.	3.79	Agree	5
Over All Weighted Mean	3.62	SLIGHTLY PREFERRED (Agree)	

LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Agree 1.00 – 1.80

Statements	Weighted Mean	Verbal Interpretation	Rank
1. I have my "to do" note to organize my schedule.	3.76	Agree	6.5
2. I do things according to what comes first.	4.24	Slightly Agree	1.5
3. I reject non-essential activities and task in a day.	3.35	Slightly Agree	9
4. I take a break between tasks or before doing another task.	4.02	Agree	3
5. I do a multiple task at the same time.	3.77	Agree	5
6. I used my time wisely to finish my task.	3.89	Agree	4
7. I avoid procrastination in doing my activities as possible.	3.31	Slightly Agree	10
8. I remove distractions when doing activities.	3.75	Agree	8
9. I manage to finish my activities before the deadline.	4.26	Slightly Agree	1.5
10. I can manage stress when handling multiple conflicting duties.	3.76	Agree	6.5
Over All Weighted Mean	3.82	SLIGHTLY PREFERRED (Agree)	

LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Agree 1.00 – 1.80

Table 1 shows the study habits of the respondents in terms of focus. The overall weighted mean of 3.62 reveals the study habits of the respondents are positively influenced by their focus. Zegarra (2019) mentioned that there are techniques to improve the study habits of a student such as having a study group.

Table 2 shows the study habits of the respondents in terms of time management. The overall weighted mean of 3.82 indicates that the study habit of the respondents is positively influenced by time management. People around the student have the responsibility and role of guiding them to develop their desirable study habits. Teachers and parents tend to be their mentors in achieving good habits in learning (Sherafat and Murthy, 2016). Since most of the attitudes and character of the student are acquired the home, it should be practiced both at home and in school. According to Nasrullah and Khan (2015), time management is very important and it may affect an individual's overall performance and achievements. It indicates that students with lower time management mostly have poor academic performance.

Table 3
Learning Styles Preference of the Respondents in terms of Visual Learning Style

Statements	Weighted	Verbal	Rank
	Mean	Interpretation	
1. I learn more by seeing pictures and visual presentations.	4.29	Strongly Agree	1
2. I learn through reading.	3.53	Agree	6
3. I use color coding on my notes, so it will be easier to memorize.	3.41	Agree	8
4. I use diagrams in my lectures for me to remember the content.	3.42	Agree	7
5. I read my notes, review pictures and charts before an exam.	3.97	Agree	4
6. I visualize image in my head of what I'm reading.	4.21	Agree	2
7. I use flashcards to learn new words.	2.92	Slightly Agree	10
8. I draw pictures or diagram to learn new concepts.	3.26	Agree	9
9. I visualize things and concepts that I hear.	4.02	Agree	3
10. I remember better when things are associated with colors.	3.72	Agree	5
Over All Weighted Mean	3.68	SLIGHTLY PREFERRED (Agree)	

LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Agree 1.00 – 1.80

Table 3 shows the respondent's learning style preference as a visual learner. The overall weighted mean is 3.68 indicates that most of the respondents are visual learners. Visual learners develop visual thinking, which is a learning style preference whereby the learner comes better to understand and retain information better by associating ideas, words, and concepts with images (Raiyn and Qasemi, 2016). De Francisco (2018) said that by using

images and photos, students could relate to the lesson that the teachers give and will increase and will increase the chances they feel a sense of familiarity in the classroom.

Table 4
Learning Styles Preference of the Respondents in terms of Auditory Learning Style

Statements	Weighted	Verbal	Rank
	Mean	Interpretation	
1. I sit in front of the class to hear the discussion clearly.	3.73	Agree	5
2. I learn more through actual classroom discussion.	4.52	Strongly Agree	1
3. I remember vividly what my teacher taught me.	3.94	Agree	3.5
4. I get easily distracted by loud and unpleasant noise when studying.	4.12	Agree	2
5. I easily remember words through voice recordings or other audio presentations.	3.68	Agree	6
6. I invent short songs to remember lessons and concepts easily.	2.84	Slightly Agree	10
7. I am good at oral reporting and class presentations.	3.5	Agree	7
8. I follow verbal directions and instructions well.	3.94	Agree	3.5
9. I speak loud when memorizing words.	3.39	Slightly Agree	9
10. I team up with a study partner to review verbally.	3.49	Agree	8
Over All Weighted Mean	3.72	SLIGHTLY PREFERRED (Agree)	

LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Agree 1.00 – 1.80

Table 4 shows the respondent's learning style preference as an auditory learner. The overall weighted mean is 3.72 reveals that the majority of the respondents have the auditory learning style. An auditory learner receives information better in the form of spoken and oral instructions. They follow the oral message and perform better in academics if the teacher gives more explanations in the class (Ling et. al, 2017).

According to the study by Kayalar et. al (2017), auditory learners get information by listening than reading and writing. They prefer to listen rather than communicate and use body language and facial expressions. However, most of the respondents that are auditory learners said that they are easily distracted by the noise coming from their environment.

Table 5
Learning Styles Preference of the Respondents in terms of Kinesthetic Learning Style

Statements	Weighted	Verbal	Rank
	Mean	Interpretation	
1. I tap my pen in my table when listening to the discussion.	3.24	Slightly Agree	8
2. I frequently shake my legs when sitting and listening to the lecture.	3.41	Agree	7
3. I learn quickly and permanently through doing and performing.	4.04	Agree	2
4. I'm good at physical activities like running, dancing, swimming, and other sports activities.	3.63	Agree	4
5. I have great hand-eye coordination and quick reflexes.	3.5	Agree	5
6. I learn better through hands-on activities.	4.09	Agree	1
7. I express my learning better through projects or outputs.	4.01	Agree	3
8. I have a hard time in sitting still inside the classroom for a long period of time.	3.47	Agree	6
9. I have a difficulty in learning procedures and following instructions.	2.86	Slightly Agree	10
10. I easily lose attention and interest in classroom discussions.	3.18	Slightly Agree	9
Over All Weighted Mean	3.54	SLIGHTLY PREFERRED (Agree)	

LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Agree 1.00 – 1.80

Table 5 shows the respondent's learning style preference as a bodily-kinesthetic learner. The overall weighted mean is 3.54 which suggest that the least of the respondents have kinesthetic learning style preference. According to the study of Khan, et. al (2019) kinesthetic or physical and palpable learners want to use their good judgment, intelligence, and logic about the situation in which they are working. Learners having physical preferences are inclined towards touching instead of much seeing and talking. Even where discussion or the written materials are not much helpful to the kinesthetic or physical learner, they plan to prolong lesson planning and get help from pictorial forms and labs. Thus, these types of learners cannot prosper and flourish in conventional classroom settings.

Statements	Weighted Mean	Verbal Interpretation	Rank
1. When doing an activity, I always consider the rubrics.	3.96	Agree	3
2. I always got the highest score on our quizzes.	3.36	Slightly Agree	10
3. I perfectly answer our teacher's question during recitation.	3.37	Slightly Agree	9
4. I always participate in group activities.	4.16	Agree	2
5. I always pass my requirements complete and on time.	4.26	Slightly Agree	1
6. I excel in individual reporting.	3.56	Agree	5
7. I can perform well during the experiments.	3.49	Agree	7
8. I can synthesize and interpret scientific data.	3.42	Agree	8
9. I execute and perform demonstration.	3.54	Agree	6
10. I participate in extra-curricular activities.	3.74	Agree	4
Over All Weighted Mean	3.69	Slightly Preferred (Agree)	
LEGEND: Strongly Agree 4.21 – 5.00, Agree 3.41 – 4.20, Slightly Agree 2.61 – 3.40, Disagree 1.81 – 2.60, Strongly Disagree 1.00 – 1.80			

Table 6 shows the academic performance of the education students majoring in science. Based on the data collected, the overall weighted mean of the respondents' academic performance is 3.69. This reveals that the respondents are agreeing that they are performing well academically. According to Dr. Kapur (2018), academic performance can be defined as the following: class participation, assignments, homework activities, tests, exams, participation in competitions, and other school events. The academic performance of a student can be affected by parents, teachers, classmates, and other individuals that influenced them. Schools develop strategies and methodologies to be able to enhance students' academic performance such as various effective teaching and learning methods, instructional strategies, use of technology in teaching, rewards, etc. The Academic performance of a student can be assessed through the teachers' mark for achieving the educational goals, set by the student or teacher at a specific time (Abaidoo, 2018). It implies that the respondents are always on time in completing and passing their school requirements considering the rubrics in doing activities. Rubric leads the students to their desired outcome, thus giving an impact on the learning outcome they wanted to

achieve through an active engaging form of learning which reflect and improve their work (Eduflow, 2016).

Relationship between Study Habit and Academic Performance	Pearson Test of Independence		Verbal Interpretation	Decision
	Pearson Correlation value	Sig Value		
Focus	0.433	0.00	Significant	Reject
Time Management	0.487	0.00	Significant	Reject

Table 7 shows the test of the relationship between study habits and academic performance. In terms of focus the computed Pearson r is 0.433 and in time management is 0.487. Since the level of significance is at 0.000 which is lower than the level of significance of 0.05, therefore there is a significant relationship between the study habit of the respondents and their academic performance, the null hypothesis was rejected. Cyril (2015) had the same result that there is a relationship between time management and academic performance. This may be because those who are following time management will do their work on time and due to this habit of time management, the students can achieve well in terms of academic performance.

However, study habits tell a person how much he will learn and how far he wants to go, and how much he wants to earn. For a student to develop an effective study habit there must have something that pushes them through. Something that motivates them to attain academic excellence. For instance, a student who desires to attain academic excellence must discipline himself to give time for studying, reading, and reviewing his lectures. As this practice continues, it would eventually become a habit as a form of discipline (Rabia et. al, 2017).

Relationship between Learning Style and Academic Performance	Pearson Test of Independence		Verbal Interpretation	Decision
	Pearson Correlation value	Sig Value		
Visual	0.436	0.00	Significant	Reject
Auditory	0.568	0.00	Significant	Reject
Kinesthetic	0.482	0.00	Significant	Reject

Table 8 shows the computed Pearson r between learning style preferences and academic performance. As observed, the visual learning style was at 0.436, auditory at 0.568, and kinesthetic 0.482. Since the computed significance level was 0.000 in all the learning styles which are lower than the level of significance of 0.05, therefore there is a significant relationship between the learning style

preference and academic performance of the respondents. The null hypothesis was rejected since it is significant.

According to Ling (2017), students were unique in their way; they were diverse in learning and in acquiring knowledge some students learn more through a visual form like reading. Some students may have better learning ability through verbal form through attending physical lectures conducted. While others may receive knowledge better through participation and practicing what they study. Teachers play a vital role in the development of a student's learning style. The teaching style of the instructor should match the student's learning style. Their learning styles should be a guide for diversified teaching methods catering to the needs of the students as asserted by Lumanog (2016).

The teaching method or style must be flexible in catering to various students, these teachers will be a great help to students in developing their corresponding learning style to achieve good academic performance.

Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. Most of the respondents are young adults with more opportunities to manage their time to do things such as schoolwork due to fewer responsibilities in doing chores than adult people. Vast numbers of respondents are female, which indicates a greater number of females took education courses than males. Mostly, females desire to be an educator which reflects their helpful and caring nature as a woman. However, the sex of the respondents influences their learning styles preference that indicates females are said to be auditory learners.

2. Time management is an important facet of good study habits. Time management requires self-discipline, and discipline was taught and learned at home and school, thus parenting and teacher guidance was important to mold students' good study habit.

3. Most of the respondents have an auditory learning style due to the nature of the course which is education, wherein listening and oral instruction are important. Most of the respondents prefer the actual classroom discussions, wherefore they learn more because it is suitable to their learning style.

4. The majority of the respondents performed well in their academics, which is expected from education students and future educators.

5. Persistent focus and appropriate time management will result in a good academic performance.

6. To attain good academic performance the student must determine his/her learning style preference.

Recommendations

Based on the conclusion, the following recommendations are hereby recommended:

1. The teachers to discuss the lesson therefore the student might not end up asking other classmates for clarification. This research also recommended to the teachers create teaching strategies that apply to any age and sex. The researchers recommended the teachers have instructional plans that would match the specific learning style of the students.

2. The students to have a study/school planner that develops their time management wherein they can organize their tasks, activities, and meetings.

3. The school administration to implement the rules and regulations in the school and create programs such as school clubs specific to the student's learning style preferences to develop their learning styles individually. The researchers also recommended providing audio or video clips to assess the student's needs. It was also recommended to promote and make good use of the school library.

4. The parents encourage their children to join in different extracurricular activities and acknowledge their child's potential. It was also recommended to guide their child to have good study habits.

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The Effects of Parental Involvements on Student Academic Achievement in Cambodian Lower Secondary Schools

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Abstract

The study examined the effects of parent's motivational behaviors (i.e. parental belief, efficacy, and expectation), SES, and two facets of parental involvements on student's academic achievement in two Cambodian lower secondary schools. Using a sample of 351 Cambodian parents, the aim of the study was quantitatively to unpack the significant effect of parental involvements on student academic achievement. The hierarchical regression analyses were employed. The phase 1 was to measure the direct and indirect influence of motivational behaviors and SES on parental involvements. Phase 2 was analyzed adding all variables from phase 1 into the models to predict the student achievements. The results show that girls are likely to perform better than boys when comparing the mean difference. Parental expectation and Home-based involvement were found to have strong and significant effect on student achievement while school-based involvement constituted a negative and significant impact on achievement. The findings have some implications for the government, schools, and parents in Cambodia and elsewhere.

Keywords: parental involvement, self-efficacy, expectation, belief, ses, achievement

Introduction

A growing body of research has suggested the importance of Parental involvement and its Benefits to the well-being and success of the students (Keng, 2004; Fajoku, Aluede, & Ojugo, 2016; and Castro et al., 2015). Parental involvement explains the extent to which parents are involved in and personally participating in child's academic life. Simply, it is defined as parental participation to promote their child's academic and social success (You, Lim, No, & Dang, 2016).

With social cognitive theory emerging as an overarching feature in the field of education, the increasing attention has been paid to parental involvement as the key factor for student learning and development (Bandura, 1977). Drawing on the approach of quantitative inquiry, the present research helps to identify the typology of parental involvements which affect the student learning and wellbeing especially the achievement. Though, the sentiments of parental involvement have positive impacts on students' academic achievement, concerning with previous research, the vast proportion of the literature in this area, however, is qualitative. Among the empirical studies that have investigated the issue quantitatively, there appear to be considerable inconsistencies (Fan & Chen, 2001; Castro et al., 2015; Nguon, 2012). The

aforementioned empirical evidences indeed indicated that parental involvement in children's education vary considerably across studies, most of which consider the parental involvement as a one-dimensional construct (Esther Ho & Willms, 1996). The inconsistent findings may be due to the aspects of parental involvements which are being investigated across studies.

The effect of parental involvement is stronger and more direct for elementary students than middle students due at least to the more complex school context, the dramatic change of parent-child relationship during adolescence (Hill & Tyson, 2009). The results of the previous studies were contradictory and evidently inconsistent to some extent, therefore, the purpose of the current study unpacks the relations between parental involvement and children's achievement with a multidimensional conceptualization, as suggested by many researchers (Fan & Williams, 2010; Grolnick & Slowiaczek, 1994; and Zong, Zhang, & Yao, 2017; Wilder, 2014). The current study aims to enrich the literature by corroborating the horizon of the parental involvement on student's achievements in Cambodian context. Next, the study unfolds the relations among the multi-dimensions of parental involvement and children achievement. Using data from the survey questionnaires of parents of seventh-grade students, this research quantitatively seeks to answer to the following research questions: (1) to what extent are parents involved in their children's education? (2) How do the typologies of parents affect the Parental involvements and achievement? (3) Are there significant effects of the parental involvements on students' achievement?

Literature Review

Parents' motivational Behaviors

Numerous studies have been conducted to measure the association of Self-efficacy and involvement, and how it influenced the achievement. Self-efficacy tremendously plays very roles in driving certain actions in order to achieve certain goals. One research found that there was a strong impact of self-efficacy on student's academic performance and achievement (You et al., 2016). In addition, research has shown that parents' attitude for learning is positively linked to students' academic achievement (Bong, 2008). And parents express their expectations to their children and impose educational expectation for them (Jeynes, 2005). According to Hoover-Dempsey & Sandler (1997), they have conducted the study about parents' beliefs and found to have significant association with student performance.

Another study has posited that academic socialization is very important for student involvements and performance, where many types of conversations and interactions are being discussed by parents and their children. They possibly have chance to exchange ideas, problems and helps to their children, and educational expectations for their children and help them with school work (Hill & Tyson, 2009). This elucidates that the parental involvement might have different effects on students' academic learning, depending on the type and the proximity of involvements.

Therefore, more empirical studies are needed on the types of involvement that influence learning motivation, which in turn affects children's academic achievement (You et al., 2016)

Parental involvements in form of socioeconomic status

This study examines processes through which family economic status variably influences the involvement in children's education and how these associations may vary by parental characteristics, such as education, child's gender, and the type of work. It is equivocal for some reason to explain, to what extent, the relationship between parent's socio-economic status and their involvement (Wang, Deng, & Yang, 2016). The socio-economic status of the parents produced positive and significant impacts on parental involvement. Many researchers reported that parents' education is related to parental involvement (Grolnick & Slowiaczek, 1994; Pena, 2000). Another research finding posited that the parents obtain higher education seem to create a more conducive learning environment at home and they are interested in helping their child learn and make things possible to help bolster their child's academic achievement (Georgiou & Tourva, 2007).

In line with socio-economic status, poor and less educated parents seem to have very low academic expectations for their children compared to high-income and educated parents (Davis-Kean, 2005). However, low-income Parents appear to get involved in their child learning, both at home-based involvement and at school-based involvement, though they have lower educational background to help their children's learning (Benner, Boyle, & Sadler, 2016). One study found that parents with low socio-economic status, who are from immigrant families, also get involved in the education of their children the same as the other parents who have high socio-economic status, but the their involvements had very little effect on student's learning outcomes (Cabus & Ariës, 2017).

It is also important to consider the significant associations between SES and student achievement. Numerous researches had been conducted about the relation between socio-economic status and academic achievement (e.g. Coleman, 1988; Sirin, 2005; Fan & Chen, 2001). However, the findings have not been conceptualized in an integrated way, and the findings of previous research conducted in this particular field reveal equivocal results. It was found that there was a strong association between socio-economic status and student achievement. And it has showed that low SES have a negative influence on student achievement (e.g. Sutton & Soderstrom, 1999) whereas other researchers argue that there is no significant correlation between socio economic status and achievement. With this uncertainty, the current research will add more empirical evidence to elucidate the relationship between socioeconomic status and parental involvements and to measure the magnitude of effects on achievement.

The effects of Parental Involvements

The effects of parent involvement on students have been measured largely in terms of student achievement based on grades or standardized test scores. As a matter of fact, students are likely to perform better, regardless of their low socio-economic status, in academic performance than the students whose their parents did not get involved in their learning (Fajoju, Aluede, & Ojugo, 2016). They concluded that parents who participate more in school activities have children perform much better in school than children whose parents participate less in school. These factors intertwined with one another. However, the involvements in student's education seem to vary from one level to another level, differ considerably from lower grades to higher grades. For instance, some previous research suggests that parents' level of education is significantly correlated with their capacity to boost their children's adaptation and performance. Typically, highly educated parents, even they have low income, can create a more conducive and realistic view of their children's performance and they tend to have higher expectations for children's educational outcomes than less educated parents (Wang et al., 2016).

Another study indicated that there was a significant impact of parental involvement on student achievement significantly associated in three core subjects, English, Math and integrated science (Fajoju et al., 2016). When parents accommodate their time and effort teach their children, they build good relationship and new skills with their children and build the children's feelings of competence. This in turn encouraged and bolstered learning productivity and confidence of the child at school and at home (Henderson, 2009). Furthermore, different aspects of parental educational involvement were found to have positive association to students' academic success, increasing their learning confidence, getting high marks in class, and having a strong sense of responsibility. Moreover, this might also build a more conducive and shared-purposed community in which everyone is feeling the sense of ownership. Despite its importance, the some of the results, however, posit the different effects to different facets of parental involvement (Hill & Tyson, 2009).

Home-based involvement is more viable, such that these activities tend to promote achievement; however, it was claimed that helping children with homework is likely to constitute negative association with academic achievement (Benner et al., 2016). This might have some sort of story behind this problem. It is apparently hypothetical in Cambodian context due to the lack involvement culture especially in the rural area where parents tend to ignore the importance of helping their child's learning. Some of the literature suggest that the effect of parent involvement on students' academic performance could also take more indirect effects, by adding some mediating variables in the models, as suggested by previous study (Hoover-Dempsey et al., 2001).

Parental Involvement in Cambodia Context

After the advent of Western assistance, NGOs increased their presence in the Cambodian education sector, expanding their work in the providing of training and technical assistance and conducting scientific research and need assessments for future development of education in Cambodia. Although the administration has proposed considerable efforts to boost the high quality of education in Cambodia by introducing numerous policies and programs, so as to reduce the barriers of inequality and accessible schooling. The program had a strong effect on enrolments in basic compulsory education and reduce the expense of family burden (Nguon, 2012). However, parental involvement of children's education in rural Cambodia is still a compelling challenge and impose more economic burden as their family conditions are already critical, pressing pressures on the support of their children's education. According to Keng (2009), from the parents' perspective, despite the reduction in school fee or making school free for everyone, the additional cost of their children's schooling such as clothes, foods, private tutoring, and learning material remain in the high demand and this high opportunity cost is exacerbated by the lower expectation that these parents have of the education sector.

Research Method

Sample and Data collection

The present research was conducted in lower secondary schools located in Daunkeo District, Takeo province. The details about the schools and their locality are presented below. 450 participants (parents) of grade 7- 9 students from 2 secondary schools were participated in the survey questionnaires. After disseminating the questionnaires, the returning rate was very high. 351 participants filled in the surveys and sent them back to the homeroom teachers. Since the participants in the study is solely the parents, the lower secondary students were asked to hand the questionnaires to their parents. For urban school, 149 questionnaires were returned and it accounted for 75 percent returned rate. 202 respondents were from rural school area which was accounted for 80.8 percent of the total 250 participants. Therefore, data of a sample of 351 parents was input into the SPSS software.

Data Analysis

The study conducts several sets of multilevel regression analysis (Hierarchical Linear Model Regression) to examine the research questions of the study. First, we examined the relationship of parental involvement based on parent behavior and family demographics. Multiple regressions are used to determine the combined effects of the independent variables (parent expectations, Belief, Self- efficacy and SES) on the Parental involvement. In the second stage, results of the multiple regression analysis of all the independent variables are used to predict the criterion variable (dependent variable), the student achievement.

Table 1 Loading factors and Scale Reliability

Factors	Items	Loading factor	Accounted percent of variance	(Cronbach's Alpha)
Parental Belief	6	.517 - .670	8.63%	.76
Parental Expectation	8	.459 - .692	9.61%	.79
Parent's self-efficacy	4	.777 - .832	7.8%	.84
Home-based involvement	8	.453 - .718	9.2%	.78
School-based involvement	10	.460 - .785	15.07%	.89

Research Findings

The findings of current study were to examine the relations between the multi-dimensions of parental involvement and student achievement. the study was to predict the effects of parental involvements and student achievement. Moreover, parental typologies and SES were also utilized in the models to predict the student achievement.

Descriptive Statistics

The demographic information collected about each parent include his or her sex, age, child's gender, number of siblings, and parent education, occupation, and household income. Sex was coded as 1 = male and 2 = female. Family SES was measured by combining parent education, occupation, and family income. SPSS was used to analyze the Socio-economic status. A principal components analysis with varimax rotation produced one factor with eigenvalue greater than 1. The score of SES ranges from **-1.66 to 3.15**. Low score means low SES of the family.

As mentioned earlier, this study has measured two types of parental involvement: school-based involvement, and home-based involvement; SES; and parent's motivational behaviors: parental belief, expectation, and self-efficacy. Data are taken from the parent questionnaire, parents' responses to the 45 items of parental involvement measure have been designed. The mean score of each involvement are presented in table of descriptive statistics. These mean scores, displayed in the table, indicate that the average score of home-based involvement (M = 4.22) is higher than school-based involvement (M = 2.96).

Table 2 Descriptive Statistics of Parental Involvement perceived by parents

	Mean	SD
Dependent Variable		
Achievement (Final exam score)	34.72	6.25
Independent Variables		
Socio-economic Status	.000	1.00
Parental Belief	3.13	0.46

Table 2 Descriptive Statistics of Parental Involvement perceived by parents (Cont.)

	Mean	SD
School-Based Involvement	2.96	0.95
Home-based Involvement	4.23	0.59
Parental Expectation	3.34	0.38
Parent self-efficacy	2.38	0.69

Table 2 explains the extent to which parents get involved in their child’s education. Means and standard deviations of each items are also presented and responded by parents in survey. The mean scores, displayed in the table below, indicated that parental belief (M=3.13, SD=0.46) and parental expectation (M=3.34, SD=0.38) are relatively high compared to parent’s self-efficacy (M=2.38, SD=0.69). It is believed that their involvements have a positive impact on the child’s education though they are reluctant and have low self-efficacy. Among the items of home-based involvement, ‘making sure my child is attending school’, ‘providing consistent encouragement’, and ‘Supporting child to attend private tutoring’ are the most popular activities of home-based involvements reported by parents following by ‘providing ideal home learning environment’, ‘doing additional household chores to allow child more time to do homework’, ‘checking whether child has completed homework’, and ‘talking with child about school-related issues’.

In general, parents tend to report relatively higher levels of home-based involvement than school-based involvement. Overall, it is revealed that parents have exponentially increased their proximity of motivational behaviors and involvements although home-based involvement appear to be the most popular and desired practices among all.

Table 3 Hierarchical Multiple Regression of Parental Involvements on Achievement (N= 351)

Predictors	Outcome Variable: Achievement			
	Model 1	Model 2	Model 3	Model 4
Urban/Rural	-.256*** (.653)	-.141* (.743)	-.183** (.729)	-.175** (.719)
Child’s gender	.147** (.709)	.153** (.696)	.137** (.680)	.125* (.671)
SES		.225*** (.367)	.145* (.372)	.157** (.368)
Belief			-.038 (.760)	-.022 (.774)
Parental Expectation			.227*** (.925)	.205*** (.935)

Table 3 Hierarchical Multiple Regression of Parental Involvements on Achievement (N= 351)
(Cont.)

Predictors	Outcome Variable: Achievement			
	Model 1	Model 2	Model 3	Model 4
Parental Efficacy			-.153** (.461)	-.140** (.457)
School-based Involvement				-.177** (.370)
Home-based Involvement				.166** (.600)
Adjusted R ²	.074	.109	.161	.188

Note: Standard errors are listed in the parentheses.

*p < .05, **p < .01, ***p < .001

The effect of Parental Involvements on Student Achievement

Student achievement was predicted from parental expectation, Belief, Self-efficacy, SES, home-based involvement, and school-based involvement. The models explained 18.8 % of the variance in student achievement, which is statistically significant, $p < .001$. Table 4 displayed the significance of the models. The analysis of variance was presented with F score and significant level. All the four models are significant for the prediction. The regression of model 1 was significant, ($F(2, 348) = 14.973, p < .001$). Other models are also significant and very useful to predict the extent to which parental involvements would affect the student achievement. Each model will be further discussed based on Table 4 to examine which predicted variables are significant or not by presenting standardized coefficient (β), standard error (SE) and significant alpha (p Value).

In model 1, the two independent variables displayed in Table 4, the student's gender and the Parent's locality, posit as the significant predictors of both on the student achievement, explaining 7.4% (.074) of the variance. Basically, it is estimated that female students perform better than male students ($\beta = .147, p < .01$) and students from urban seem to outperform the rural students in achievement ($\beta = -.256, p < .001$).

In model 2, the socio-economic status was utilized for the analysis. SES of the model estimation is a positively significant predictor of student achievement ($\beta = .225; p < 0.01$) increasing the explained variance by 10.9% of the total variance. This reveals that the socio-economic status increases, the students seem likely to perform better in overall scores. Though, there is no significant difference of SES on involvements between rural and urban family. In addition, the model extrapolates the impact of SES, interestingly, illuminates how household income possesses a large portion of impact that would considerably maximize the performance.

Model 3 corroborates the extent to which the parents 'motivational behaviors influence achievement. Parents' expectation, belief, and self-efficacy are added into the model. These factors aggregate relatively high percentages of variance accounted for 16.1%. Surprisingly, parental belief is revealed as a negative, non-significant

predictor of student achievement ($\beta = -.038$; $p > .05$). However, it was found that parent expectation and parent self-efficacy are the significant predictors of student achievement ($\beta = .227$, $p < .001$) and ($\beta = -.153$, $p < .01$) respectively.

Model 4 is last prediction which added the major predictors of parental involvement: school-based involvement and home-based involvement. This model is of advantage aggregating all the previous models which could allow more rigorous prediction. The estimation could explain 18.8% of the variance. Surprisingly, school-based involvement is found to have significant and negative impact on achievement ($\beta = -.177$, $p < .01$) whereas home-based involvement has a significant positive effect on student achievement ($\beta = .166$, $p < .01$). In other words, it is indicated that school-based involvement is not the significant predictor without the home-based involvement. In conclusion, the final model indicates that parental involvements have significant effects which could culminate in student achievement.

Discussions

The objective of the present research was to examine the effect of parental involvements on student achievement and at the same time to measure the effect of parent's motivational behaviors and SES on parental involvements and children's academic outcome. The data was revealed that parents seem to rate high on home-based involvement and very low on school-based involvement, which is in contrast with the previous study (Nguon, 2012). Unexpectedly, it was found there is no significant difference of SES and motivational behaviors among rural family and urban family. In this regard, we did not have enough evidence, thus failed to reject the null hypotheses. This study also indicated that the two types of parental involvements are revealed no significant differences between rural parents and urban parents. This draws our attention that the parent's educational practice does not limit the effectiveness of involvement in regarding to locality. The undifferentiating of involvements from rural and urban family partially elucidated the determinants of locality have no significant effects in determining the proximal practice. However, it was found that there is a significant difference between male students and female students on academic achievement. Consistent with previous study (Arens & Jude, 2017), girls were found to have higher levels of achievement in overall scores for academic achievement than male students. In addition, students from urban area are likely to have good performance than those from rural area. Regarding to family activity, mothers are likely to take more involvement and responsibility for the student's learning than fathers. This could be justifiable that fathers are commonly the breadwinners who work outside home and mothers generally stay home and take care of the family. Parental expectation of children's higher education produces the highest and positive effect on achievement (Jeynes, 2005; Castro et al., 2015). Parents seem to culminate higher likelihood of engaging in the student's learning and contributing to student's achievement. It apparently appears that the parents with high expectation invest a lot of time and resources to their child's education. They tend to frequently

get involved both at home and school by providing conducive learning environment, supporting private tutoring, and bolstering consistent encouragement. Despite the high parental expectation, parents are found to have substantially low belief as well as low ability to help their child because they view such involvements will not make any difference to their child's education (Hoover-Dempsey & Sandler, 1997).

The study was analyzed to gauge the effect of variance in student achievement. It was found that efficacy, expectation, home-based involvement are the significant positive predictors on achievement. Previous research findings also found that parental self-efficacy and parental involvement have significant effect on student academic achievement (Green et al., 2007). It is also elucidated the present study. It was notified that parents' self-efficacy constituted the significant negative effect on achievement, inconsistent with previous finding which found to have positive effect on achievement (You et al., 2016). This result illuminated that parents are likely to be reluctant to help their child's learning due to their low self-efficacy. If corroborated, parental self-efficacy imposed significantly negative influence on academic achievement. This posits that parents who have low self-efficacy are likely to have less interest or no intention to get involved with their child's learning which is consistent with the results of previous findings (Jones & Prinz, 2005; Shin, 2006; You et al., 2016). However, when primarily discussing about parent's expectation of child's learning, they seem to consider this factor as very important, demonstrated the stronger involvement and interest with their children at home. With high expectation, this could be speculated that helping child learning at home constituted a more robust learning caliber which has been posited as the strong predictor of student achievement, in conjunction with previous study (Fan & Chen, 2001). When referring to parent's belief, they tend to have lower belief concerning their involvements in the child schooling. This demonstrated that parents possibly believed it was not their main responsibility or job to do that, pressing more responsibility on schools and teachers. The sentiment of phenomenon is that only teachers could help their children to get better quality of education. It is justifiable, regardless of their involvements, parents considered teachers as solely an important factor imparting the knowledge and enhancing the student performance.

As investigating the involvements, the results suggest that these two facets of parental involvements have different effects. Presumably, school-based involvement is found to have significantly negative influence on the achievement. This could be implied that parental involvement in the school has a negative effect on children's achievement, which is inconsistent with the prior findings (Nguon, 2012; Ho, 2003; Fajoju et al., 2016) and school learning atmosphere was more effective than home involvement, when considering the student achievement (Adamski, Fraser, & Peiro, 2013). School-based involvement seemed to be less preferable due to the lack of school's support and initiative of invitation of involvement. The possible explanation is that parents would be invited to school with their child in relation to the student 'misbehavior and/or poor academic performance. Another justification would be a

dearth of home-school communication, where local education systems appear to be very weak with no parent-teacher meeting which are likely to produce negative effect on learning outcome.

In contrast, the results of this study reveal a significant effect of Home-based involvement, based on the parent's self-report, on student academic outcome (Benner et al., 2016); parent involvement at home was more important than the role of school and community (Ma et al., 2016). The result of the current study is accordance with (Theodille, 2012) revealed that student whose parents get highly involved and provide a conducive home learning environment are likely to have better outcome than students whose parents do not get involved or less involved. Inconsistent with prior study claiming parent's home activities to be less crucial (Ho, 2003; Tam & Chan, 2009), the result of this empirical analysis found that home-based involvement is more viable and tends to promote and culminate academic achievement. In other words, parents who embrace their child with supportive encouragement (Hill & Tyson, 2009) and conducive learning atmosphere at home seem to be positively related to student's academic outcomes, although this intensity would likely be on the downward trajectory for the upper secondary school level (Nguon, 2012).

Conclusion and Implications of the Study

In brief, parental involvements are deemed as the overarching impetus in enhancing students' academic achievement. Home-based involvement is of its importance for conducive learning environment. In other words, the empirical result of this research posits that parents, regardless of their locality, gender, or occupation, need to realize that involvement is impeccably more important than the resourcing and socio-economic status parents have provided to their child. In conjunction with these associations, Henderson et al., (2007) posited that the stronger the relationship between families, communities and schools, the more student achievement increases. It was prevalent over the past decade that the obvious problems or issues with low performance of the students were deemed the failure of cementing the school and parent's collaboration within the local community where schools have probably no connection with home environment. It is suggested that parental involvement initiative would be embraced as this might help alleviate the issue of inequality in equitable and quality access to education in many parts of Cambodia. If the schools build up the bridges to link between rural family and schools, where many concerns and problems can be discussed and to find some sort of shared purpose and solutions.

There are few major implications could be drawn from the research findings. First of all, the Cambodian government, MoEYS, and local educational authorities should advocate the awareness of parental involvements and promote the benefit of involvements to the public through TV commercials, Screen Banners, advertisement, magazine, and the like. The possible explanation is that rural parents are no doubt lack of access to the information and government guidelines.

Second, schools would also benefit from the initiatives implementing and bolstering teacher-parent meeting/conference frequently. Fostering and reinforcing the parental involvement, as a crucial link to social learning theory, could unpack several key components and build ecological learning environment where everyone is the backbone to the nourishing family, school, and community. Corresponding to previous study (Gubbins & Otero, 2016), identifying the effective practices that parents can help the students at home. This can contribute to teaching and learning at school, making it easy to monitor the students' learning and strengthen student performance.

Third, teachers would encourage parents to spend some times help and teach their child. For example, leading and monitoring the child to complete the homework could also boost student's learning productivity. It is suggested that parents should read together with the child which could ultimately enhance their efficacy and achievement, hereafter strengthen the conducive learning atmosphere for the child both at home and school.

Examining the parents' self-report on parental involvement appears to be relevant the research focus: the effect of parental involvements on student achievement. However, some limitations should be taken into account. The analysis is based from parents' self-report only. The cross-sectional data was utilized in the study in nature. There might be sort of change through time. Thus, longitudinal data analysis will be suggested for future research. It is also suggested a mixed research method should be employed to gauge the deep understating and insight to the problems and explore a more robust framework for parental involvements in Cambodia context. Nonetheless, Future research should include another stakeholders' point of view (e.g. student's or teachers) as the current study used only parent's self-report. In addition, since this study used exploratory factor analysis to rotating the items into factors, further studies are needed to test the goodness of fit by further analyzing confirmatory factor analysis with Structural equation modeling and validating the scales and models the theoretical framework.

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English Speaking Ability towards Appropriate Online Teaching in the Epidemic of COVID-19 of Students in Aviation Business and Tourism Management Major, North-Chiang Mai University

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Abstract

The purposes of this study were to 1) investigate the contribution to creating difficulties in English speaking ability and 2) study the level affecting English speaking ability. The population of the study is 35 third and fourth-year students in Aviation Business and Tourism Management major, faculty of Business Administration, North-Chiang Mai University. The data were collected via questionnaires and analyzed to means statistics and standard deviation.

The findings of this study were as follows:

1. The students were aware of their speaking problems and attitudes towards learning English. They had enough knowledge the basic grammar and confidence to speak English without fear of criticism from others speaking but they don't know the words needed for that certain topic. They can't build sentences and they always use Thai language if they can't express themselves in English.

2. The students were more motivated when their teacher encourages students to speak English in class. The research also revealed that reinforcing the learner beliefs also motivated students and they were more motivated when they practiced speaking in English, discussing events and situations with their teachers and classmates in the English-speaking lesson.

3. The students were aware that face-to-face learning is more effective than online learning, and that interaction with their teachers and classmates in onsite classes is superior to interaction in online classes.

4. The teacher should take the findings of the research into account when designing an activity in the process of learning to speak English as a foreign language that will assist students in overcoming their speaking difficulties.

Keywords: English speaking, ability, online teaching.

Background and Statement of the problem

Communication is one of the four productive skills in English (reading, writing, listening, and speaking), that must be mastered when learning a foreign language, and speaking is one of them. Furthermore, English speaking ability is defined as the act of producing words that listeners can understand. One of the most important skills to cultivate and improve as a mode of communication in a foreign language is speaking.

However, English Foreign Language is the most difficult skill to improve and develop because they face many obstacles during the learning process, learning another language takes a long time to develop effectively, and the Covid-19 pandemic condition has forced the suspension of all crowd-drawing activities, including teaching and learning activities on campus.

The nature of learning and teaching has changed dramatically. In many parts of the world, face-to-face learning has been supplanted by online learning, thus altering the form of communication between teachers and students.

The ability to speak fluently and comprehensively is an important tool for communicating because it is an important part of daily-life interaction and is frequently the first impression of a person on the ability to speak fluently and comprehensively. So that the instructors have the responsibility of preparing students for the skill of speaking while dealing with a variety of factors that influence the development of this skill.

Though English becomes the second language, there are factors that prevent students from effectively using the English language; they are uncomfortable using the second language fluently and instead use it in a more colloquial rather than formal manner. This study focuses on analyzing the factors that affect students' speaking skills, particularly in third and fourth-year students enrolled in the English profession subjects in the current curriculum, from the students' perspectives.

From the above information and reason, makes the significance of this research work, which will assist teachers to see the weak points in language knowledge acquisition and allow for the encouragement and improvement of English teaching strategies focused on speaking skill development.

Objectives of the Study

This study is to investigate of English speaking ability of students at North-Chiang Mai University as follows:

1. To investigate the contribution to creating difficulties in English speaking ability.
2. To study the level affecting English speaking ability.

Conceptual Framework and Literature Review

1. Teaching English Language and Speaking Skills.

Brown (2004) states that language is a complex whole, the mastery of which requires the learner's total commitment for life. The person's prior knowledge, attitudes, personality, learning styles, skills, and motivation are all factors related to the eventual outcome of the language study.

Sari Luoma (2004) states that speaking is an interactive process of constructing meaning that involves producing, receiving, and processing information. Its form and meaning are dependent on the context in which it occurs, including the participants themselves, the physical environment, and the purposes for speaking. It is often spontaneous, open-ended, and evolving. However, speech is not always unpredictable. Language functions (or patterns) that tend to recur in certain discourse situations can be identified.

Rivzi M Ashaf (2006) states that speaking is an interactive communicative process that involves speakers and listeners. While someone is speaking there must be a listener who listens and pays attention to the content and message. So, the speaking must be understandable and comprehensible for the speaker partners.

Rosa Alonso (2018) states that speaking in every language is one of the most significant competencies to improve communication. Also, speaking skill is considered one of the most difficult parts of language learning. The learners who study English as an English as a foreign langue (EFL)/ English as a second language (ESL) find it very difficult to express their thoughts, ideas, information and hopes successfully. In English language departments where students' major field is English; they mostly evaluate their progress and success in English learning based on how well they have been improved in their spoken

language skills. Concentration on speaking skills in a second/foreign language is naturally difficult and it is considered one of the most challenging language skills to be captured.

Teachers are expected to expose language learners to the linguistics because language knowledge is more complex. Learners should be taught how to construct language in order to use it coherently, to be aware of the importance of the social context, and to be able to use alternative or nonverbal means of communication when words fail them.

2. Factors Inhibiting Students in Speaking.

Humaera (2015) states that there are two main factors inhibiting students in speaking, namely, affective and cognitive factors. The factors inhibiting students from speaking are presented by its main factor. The affective factor is the first main factor explained in the study. This factor appears as students get a negative result from the process of learning English in the classroom. Lack of self-confidence is the next factor inhibiting students from speaking. Limited knowledge possessed by students related to English certainly makes students have low self-confidence. This situation might get worse as they see some of their friends do not easily understand their speaking performance in the classroom.

Tuan and Mei (2015) found that many factors can affect or influence students speaking performance such as topical knowledge, listening ability, motivation to speak, teacher's feedback during speaking activities, listeners' support, anxiety, self-confidence, the pressure to perform well, time for preparation, and time allowed to perform speaking.

Al-Eiadeh, Al.Sobh, Al-Zoubi, & Al-Khasawneh (2016) state that many students have difficulties in speaking English, such as misunderstanding and lack of confidence because they did not practice speaking sessions accurately in school. They have no idea how to effectively practice speaking or use it in communication. Aside from that, students have a limited vocabulary. Because most Thai classes both teachers and students hardly communicate in English. Instead, they only focus on reading skills and grammatical lessons.

Abda (2017) states that three major problems with students' speaking skills are: poor background of language knowledge, lack of motivation, and lack of self-confidence.

Hanifa (2018) states that students have to put interest in topics before they perform their speaking. Good performance of speaking is seen as students already understand topics or material of speaking. Topics will also motivate students to learn to speak in the classroom.

3. Students' Attitudes towards Language Learning.

Johnson (2001) states three types of attitudes in relation to language learning: the first is attitude towards success, this type of attitude relates to student strives for achieving their goals in life or in learning English, it can be seen through their attitudes towards learning English. The second is attitude towards teacher, this is a common believe that if people do not like the teacher of the subject they learn they are just wasting their time trying to learn that subject. The last is attitude towards your own country, perhaps what people think of their own country, and not just the country of the target language speaker, will influence how well they succeed in the English language learning; it is also related to how students regard the people and its language.

Brown (2000) states that attitudes occur as a result of communicating with family, peers, and other people in the neighborhood during childhood, or being affected positively or negatively by various affective factors.

Braten (2006) states that students' attitudes toward learning directed their participation in learning activities.

Stacey & Barkatsas (2007) showed that students' emotions, interest, and beliefs about learning affected their behaviors. Positive attitudes led to the exhibition of positive behaviors toward courses of study, with participants absorbing themselves in courses and striving to learn more.

Liaw, Huang & Chen (2007) explored 30 college instructors and 168 students' attitudes toward e-learning. Participants were asked to answer two different questionnaires for investigating their perceptions of e-learning. According to this research, positive attitudes included feelings like self-sufficiency, usefulness, and enjoyment.

In addition, students' attitudes can shift. They may have negative attitudes toward learning a language at first, but as they realize the benefits of knowing this language, their attitudes change.

4. Factors related to teachers' role in teaching speaking skills.

Richards (2006) stated that a teacher's talk is the variety of language that is sometimes used by the teacher when they are in the process of teaching. In trying to communicate with learners, teachers often simplify their speech, giving it many of the characteristics of foreign talk and other simplified styles of speech addressed to the language learner.

Harmer (2007) states that a teacher is like a gardener because he/she plants the seeds and watches them grow. Students are the field and the seed is seen as the knowledge planted by educators. As a gardener takes very good care of the roses, flowers, and waters them when necessary, the teacher also plays different roles in the lives of the students not only by planting knowledge in them but also by acting as a model in the classroom and outside it with their personal lives.

Grant and Basye (2014) emphasized that schools that engage students promote a sense of belonging, provide personalizing instruction, and create a supportive, caring social environment.

N. H. Tuan and T. N. Mai (2015) states that students' speaking performance is influenced by many factors like; environments, affective factors, listening skill, and feedback during speaking tasks.

Teachers should be extremely cautious when providing feedback, as excessive correction may decrease students' motivation to speak. Encouragement, on the other hand, may motivate students to perform oral tasks with confidence, thereby improving their speaking ability.

5. Factors related to students' interaction in online classroom learning.

Hall & Verplaetse (2000) stated that it is in their interactions with each other that the teacher and students work together to create the intellectual and practical activities that shape both the form and content of the target language as well as the processes and outcomes of individual development

I. Jung, S. Choi, C. Lim, and J. Leem (2002) stated that social interaction with lecturers and with co-learners is imperative to achieve better online learning quality. Through strong interaction and consistent practice, the effectiveness of online learning can be achieved

Rossett (2002) stated that online learning has many promises, but it takes commitment and resources, and must be done right. Doing it right means that online learning materials must be designed properly, with the learners and learning in focus, and that adequate support must be provided.

Siemens (2004) stated that we now need a theory for the digital age to guide the development of learning materials for the networked world. Educators must be capable of adapting existing learning theories for the digital age.

In addition, students can interact with one another by assigning work online. There is instructional technology available that allows students to meet online in a virtual space and students can share their ideas on various topics with one another. Student-led online discussions usually promote deeper understanding.

Conceptual Framework

The conceptual framework of this study consists of the independent variable and dependent variable as follows:

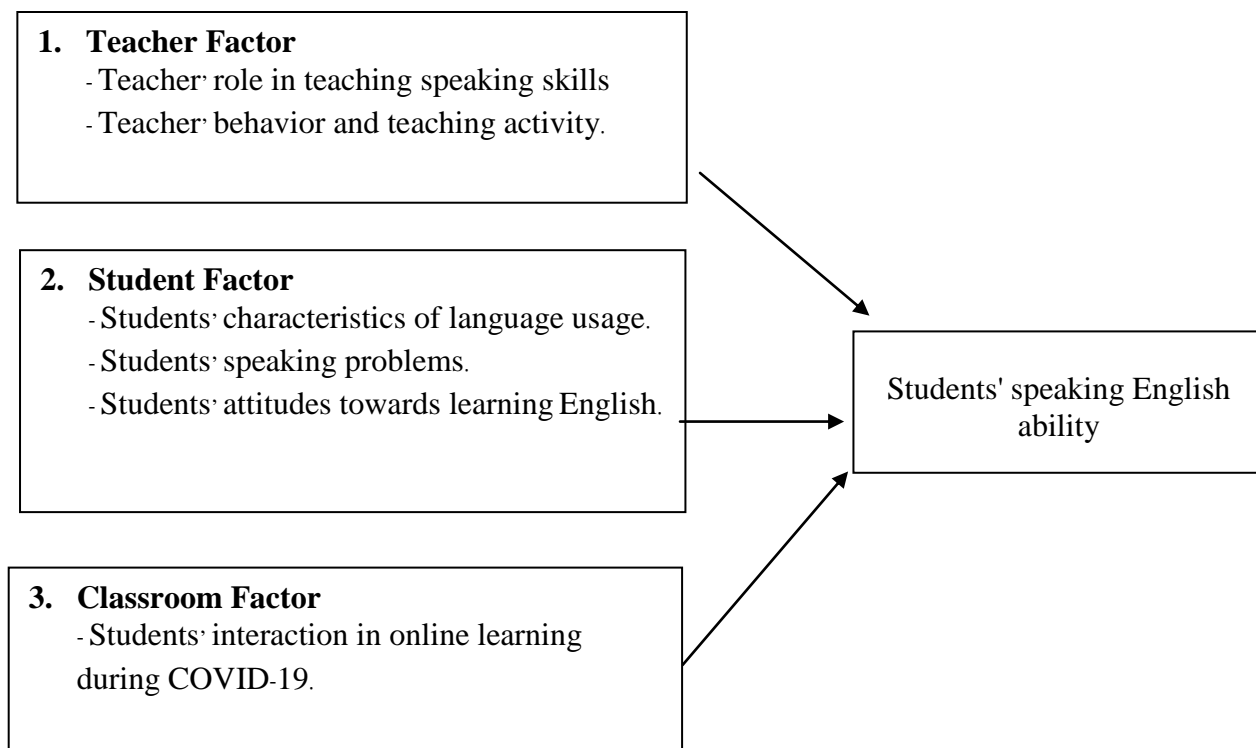


Figure 1 The Research Conceptual Framework

Research Methodology

In this research, the researcher has specified the scope of the research in terms of content and population with details as follows:

Population and Samples

The sample of this study. The total number of 35 undergraduate students at North-Chiang Mai University.

Variables

The data was collected quantitatively by the researcher because the purpose of this study is to determine which affective factors influence the speaking ability and which affective factors have the greatest influence on speaking ability, the quantitative method was chosen. Explaining the relationship between variables can determine whether one or more variables are related.

The dependent variable is students' speaking ability while the independent variable is the affective factors. Three independent variables are the teacher factor, student factor, and classroom factor.

Independent variable: Factors influencing student English proficiency are divided into three sections:

1. Teacher Factor
 - Teachers' role in teaching speaking skills
 - Teachers' behavior and teaching activity.
2. Student Factor
 - Students' characteristics of language usage.
 - Students' speaking problems.
 - Students' attitudes towards learning English.
3. Classroom Factor
 - Students' interaction in online learning during COVID-19.

Dependent variable: Students' speaking English ability.

Research Instruments

The research instrument employed to collect data for this study were questionnaires and class observation. The questionnaire with closed-ended questions is divided into these three sections the first one is "Factors related to teachers' role in teaching speaking skills", the second one is "Affective factors impacting students' speaking skills", and the third one is "Factors affecting students' interaction in online learning during COVID-19." were delivered to 35 students.

This questionnaire assisted them in learning about some of the factors that affect them when speaking English during the online class. In this survey, students were given the opportunity to respond to some important questions based on their performance and the real situation to which they were exposed.

Data Collection

The data collection procedure is entirely online due to the COVID-19 pandemic. The survey data was gathered one month after the participants completed the Microsoft Forms questionnaire. Students in the survey would enter the link provided on social media. An online survey is a type of data collection method that is extremely convenient for them. All questions were marked with the function required which means that students must complete all questions to submit the survey before exiting it.

Data Analysis

The quantitative data from the questionnaires were analyzed using Excel program. In order to evaluate the students' speaking English ability towards appropriate online teaching and learning models in the epidemic of COVID-19, the data from five-rating scales were computed for the mean, (\bar{X}) and standard deviation (S.D.).

Summary of the Study

The results obtained from the analysis of data for each item are discussed elaborately as follows.

Table 1 Teacher factors

The Mean and Standard Deviation for factors affecting instructors' role in teaching speaking skills item of the Questionnaire (n=35)

Evaluation list	Mean	SD	Ranking	Degree
1. The teacher speaks to students in English, using clear and simple language.	4.11	0.58	7	Agree
2. The teacher provides students with opportunities to practice speaking English by using a variety of learning materials.	4.09	0.70	8	Agree

Table 1 Teacher factors (Cont.)

Evaluation list	Mean	SD	Ranking	Degree
3. The teacher encourages students to speak English in class.	4.57	0.50	2	Strongly agree
4. The teacher gives students enough time to prepare for the speaking activity in class.	4.43	0.56	4	Agree
5. The teacher uses interactive techniques in teaching English.	4.20	0.41	6	Agree
6. There is no pressure from the teacher when students speaking activity.	4.54	0.51	3	Strongly agree
7. The teacher lets students do role-playing, group work, and presentations in English.	4.66	0.54	1	Strongly agree
8. The teacher introduces the idea of the lesson and gives students enough vocabulary to use for their speaking activity.	4.40	0.60	5	Agree
Total	4.38	0.25		Agree

As revealed in Table 1, indicates that the factors affecting instructors' role in teaching speaking skills as a whole were at "Agree" levels (\bar{x} =4.38, SD=0.25). When considering each item, it was found that the three highest mean scores were no. 7 "The teacher lets students do role-playing, group work, and do presentations in English." (\bar{x} =4.66, SD=0.54), and no. 3 "The teacher encourages students to speak English in class." (\bar{x} =4.57, SD=0.50), followed by no.6 "There is no pressure from the teacher when student speaking activity." (\bar{x} =4.54, SD=0.51) respectively. In contrast, the lowest mean scores were no.2 "The teacher provides students with opportunities to practice speaking English by using a variety of learning materials." (\bar{x} =4.09, SD=0.70)

Table 2 Student factors.

The Mean and Standard Deviation for Factors affecting students' ability to speak in English. (n=35)

Evaluation list	Mean	SD	Ranking	Degree
Characteristics of language usage.				
1. I enjoy watching movies and listening to English music.	4.63	0.55	1	Strongly agree
2. I enjoy discussing events and situations with my teacher and classmates in the English-speaking lesson.	4.31	0.53	4	Agree
3. I feel that my listening skills are good.	3.49	0.59	6	Neutral
4. I feel motivated and confident while speaking English in class.	4.26	0.66	5	Agree
5. I have the opportunity to converse with foreigners.	3.34	0.76	7	Neutral
6. I practice speaking in English with my teachers and friends in the classroom.	4.54	0.56	2	Strongly agree

Table 2 Student factors (Cont.)

Evaluation list	Mean	SD	Ranking	Degree
7. I dare to speak English without regard for grammar.	4.49	0.70	3	Agree
Total	4.15	0.24		Agree

As revealed in Table 2, indicates that the students' characteristics of language usage as a whole were at "Agree" levels ($\bar{x}=4.15$, $SD=0.24$) When considering each item, it was found that the three highest mean scores were no. 1 "I enjoy watching movies and listening to English music." ($\bar{x}=4.63$, $SD=0.55$), and no. 6 "I practice speaking in English with my teachers and friends in the classroom." ($\bar{x}=4.54$, $SD=0.56$), followed by no. 7 "I dare to speak English without regard for grammar." ($\bar{x}=4.49$, $SD=0.70$) respectively. In contrast, the lowest mean scores were no. 5 "I have the opportunity to converse with foreigners." ($\bar{x}=3.34$, $SD=0.76$)

Table 3 Student factors

The Mean and Standard Deviation for Factors affecting students' ability to speak in English. (n=35)

Evaluation list	Mean	SD	Ranking	Degree
Students' speaking problems.				
1. I want to speak English but I don't know the words needed for that certain topic.	4.57	0.50	1	Strongly agree
2. I find it difficult to build sentences, I know the grammar but I can't put it in a sentence.	4.40	0.65	3	Agree
3. I am shy, I don't feel confident while speaking English in class.	3.31	0.80	4	Neutral
4. I fear criticism from others while speaking.	3.29	0.71	5	Neutral
5. I use the Thai language if I can't express myself in English.	4.51	0.61	2	Strongly agree
Total	4.02	0.28		Agree

As revealed in Table 3, indicates that the Students' speaking problems as a whole were at "Agree" levels ($\bar{x}=4.02$, $SD=0.28$) When considering each item, it was found that the three highest mean scores were no. 1 "I want to speak English but I don't know the words needed for that certain topic." ($\bar{x}=4.57$, $SD=0.50$), and no. 5 "I use Thai language if I can't express myself in English." ($\bar{x}=4.51$, $SD=0.61$), followed by no. 2 "I find it difficult to build sentences, I know the grammar but I can't put it in a sentence." ($\bar{x}=4.40$, $SD=0.65$) respectively. In contrast, the lowest mean scores were no. 4 "I fear criticism from others while speaking." ($\bar{x}=3.29$, $SD=0.71$)

Table 4 Student factors

The Mean and Standard Deviation for Factors affecting students' ability to speak in English. (n=35)

Evaluation list	Mean	SD	Ranking	Degree
Students' Attitudes towards learning English.				
1. I believe that proficiency in English communication is necessary.	4.60	0.50	1	Strongly agree
2. I believe that conversing with foreign friends will help me improve their communication skills.	4.06	0.68	3	Agree
3. It is important to master speaking skills in English.	4.54	0.66	2	Strongly agree
4. I prefer to study English with foreign teachers rather than Thai teachers.	2.49	0.61	4	Disagree
Total	3.92	0.35		Agree

As revealed in Table 4, indicates that the Students' attitudes towards learning English as a whole were at "Agree" levels ($\bar{x}=3.92$, $SD=0.35$) When considering each item, it was found that the three highest mean scores were no. 1 "I believe that proficiency in English communication is necessary." ($\bar{x}=4.60$, $SD=0.50$), and no. 3 "It is important to master speaking skills in English." ($\bar{x}=4.54$, $SD=0.66$), followed by no. 2 "I believe that conversing with foreign friends will help me improve their communication skills." ($\bar{x}=4.06$, $SD=0.68$) respectively. In contrast, the lowest mean scores were no. 4 "I prefer to study English with foreign teachers rather than Thai teachers." ($\bar{x}=2.49$, $SD=0.61$)

Table 5 Online Classroom Factors

The Mean and Standard Deviation for Factors affecting students' interaction in online learning during COVID-19. (n=35)

Evaluation list	Mean	SD	Ranking	Degree
1. I like the flexibility that comes with online learning.	4.40	0.50	4	Agree
2. Face-to-face learning is more effective than online learning.	4.80	0.41	1	Strongly agree
3. Online learning allows me to review learning materials repeatedly.	4.49	0.56	3	Agree
4. Online learning is more enjoyable than face-to-face learning.	3.03	0.45	5	Neutral
5. I look forward to face-to-face classes more than online classes.	4.69	0.47	2	Strongly agree
6. I believe that online course teaching should continue even after the COVID-19 pandemic.	2.26	0.44	6	Disagree
Total	3.94	0.17		Agree

As revealed in Table 5, indicates that the students' interaction in online learning during COVID-19 as a whole were at "Agree" levels ($\bar{X}=3.94$, $SD=0.17$) When considering each item, it was found that the three highest mean scores were no. 2 "Face-to-

face learning is more effective than online learning.” (\bar{x} =4.80, SD=0.41), and no. 5 “I look forward to face-to-face classes more than online classes.” (\bar{x} =4.69, SD=0.47), followed by no. 3 “Online learning allows me to review learning materials repeatedly.” (\bar{x} =4.49, SD=0.56) respectively. In contrast, the lowest mean scores were no. 6 “I believe that online course teaching should continue even after the COVID-19 pandemic.” (\bar{x} =2.26, SD=0.44)

Study Results

In this questionnaire, it was tried to find out the English speaking ability for appropriate online teaching in the epidemic of COVID-19 while concentrating on learning a foreign language, especially English. The participants were given a survey that consisted of several statements related to the mentioned factors.

The findings showed that the students were aware of their speaking problems and attitudes towards learning English. They had enough knowledge the basic grammar and confidence to speak English without fear of criticism from others while speaking but they don't know the words needed for that certain topic, they can't build the sentences and they always use the Thai language if they can't express themselves in English. The students were aware of face-to-face learning is more effective than online learning

According to the findings, learners were more motivated when their teacher encourages students to speak English in class. The research also revealed that reinforcing the learner beliefs also motivated students and they were more motivated when they practiced speaking in English and discussing events and situations with their teachers and classmates in the English-speaking lesson.

Finally, the teacher should take the findings of the research into account when designing an activity in the process of learning to speak English as a foreign language that will assist students in overcoming their speaking difficulties.

Discussions

The research results indicated that the students were aware of their speaking problems and attitudes towards learning English. They had enough knowledge the basic grammar and confidence to speak English without fear of criticism from others while speaking but they don't know the words needed for that certain topic, they can't build the sentences and they always use the Thai language if they can't express themselves in English. The students were aware of face-to-face learning is more effective than online learning. The result confirmed the hypothesis was consistent with other research studies namely, Ahmad Shah Qasemi (2020). Studied Factors Affecting Students' Speaking Performance in English Department of Jawzjan University and the findings of the study showed that the majority of the students have a positive perception of the importance and necessity of speaking skills. According to the findings, most of the students do not have the opportunity of practicing English speaking out of the class. Moreover, dissimilarity in the English education background of the students is another challenge that is recognized in the outcome of the study. Furthermore, the findings showed that most of the students feel motivated and confident in their speaking performance. Moreover, the findings also revealed that the teachers have a significant role in motivating the students in speaking performance. To sum up, the result exposed that students are appreciated and praised when they perform a speaking task efficiently. Ita Suryani (2020). Studied Investigating the Inhibiting Factors in Speaking English Faced by Senior High School Students in Singaraja and the results of the study showed that the two main factors, affective and cognitive factors, appeared to inhibit the students in learning to speak English as a foreign language.

All of the sub-factors categorized as affective factors had been revealed to be the factors inhibiting the students in speaking. The result also found that grammar, pronunciation, and knowledge of vocabulary were the factors inhibiting the students in speaking. In addition, the students also got more influence from the effective factor as the first main factor inhibiting the students in learning to speak English. The result also showed that the teacher had positively agreed that the inhibiting factors mentioned earlier also inhibited the students in learning to speak English as a foreign language. Yayuk Hayulina Manurung (2020) The result showed internal factors surprisingly dominated the difficulties in their speaking performance namely the students' lack of vocabulary and their hesitance or reluctant feeling of make mistakes and being afraid to be. However, it will matter a lot for them if the lecturers conduct suitable teaching approaches by helping their peers, and classroom organization.

Recommendations

1. Students should be more motivated to develop their speaking ability and improved with the use of English sentence structures interpersonal interaction as well as knowing more extensive vocabulary.
2. Teachers should cultivate an English communication culture in their classrooms to improve students' speaking skills.
3. Teachers should place a greater emphasis on English as a medium of instruction in English classes.

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A Portable Weather Station Using APRS Protocol on 78 MHz Band

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Abstract

A Portable Weather Station (PWS) using Automatic Position Reporting System (APRS) protocol on 78 MHz band is presented in this paper. For a licensed amateur radio operator, the PWS data is transmitted on the high VHF licensed band while public or non-licensed radio operators can operate on non-licensed band only. Therefore, with a future objective to establish a Citizen Weather Observer Program (CWOP), a PWS prototype system is proposed and experimented on 78 MHz non-licensed citizen band. The system consists of a PWS and an internet gateway (iGate) on 78 MHz band. With the maximum transmitting power of 300 mW, the experimental result showed that the PWS and iGate can established two points RF wireless communication. The result is also theoretically validated with link budget analysis.

Keywords: Weather Station; WX; APRS; Wireless RF; CB

Introduction

A Portable Weather Station (PWS) or WX station has been used for weather data collection for nearly 200 years [1]. Instead of having a single PWS alone which collect, record, and report a point weather condition, a group of individuals formed a team and create a network covering wider area. Weather condition and related parameters were recorded on paper and then mailed to a weather centralized command center for analysis whether to issue an early warning of natural disaster such as tornado, flash flood, etc. Such a networking becomes the central concept of Citizen Weather Observe Program (CWOP). Presently, modern network communication replaces the paper recording and snail mails. Weather data are collected and stored for further analysis using modern data network such as the internet. While the internet is widely available in urban and many rural areas, some places have limited access to the internet; for examples, a weather station located on a mountain top or a ocean buoy weather station. In such case, weather data are transmitted through a radio frequency (RF) network to a mobile or fixed radio gateway.

The Automatic Packet Reporting System (APRS) Protocol (APRSTM) [2] was developed in 1982 by Bob Bruninga, an amateur radio call sign WB4APR (sk) who passed away in Feb 2022 [3]. The APRS protocol utilizes the audio frequency shift keying (AFSK) modulation technique by representing logic 0 and logic 1 with changing of audio tone frequency. The APRS fixed data frame uses the AX.25 data frame format. The modulated audio tone is transmitted via a radio transmitter and received by a radio receiver. The weather data are transmitted with the APRS protocol and received with the reversed demodulation method by an internet connected receiver (iGate). Data are utilized or shared via internet services. For example, data are displayed as an overlay information with Google map API. A PWS

is constructed by integrating instruments together in a package depend on objectives of the PWS. Such instruments may be sensors for ambient pressure, humidity, PM2.5, wind speed, etc. Raw data from sensors are packed in the data frame and modulated with the AFSK method by a modem. Modulated audio are fed to a transmitter. Generally, APRS are transmitted on high VHF band such as 144.39 MHz in an amateur radio band which has relatively low natural interference. However, such frequency band is for licensed amateur radio operators only. Therefore, a prototype on low VHF band as in the 78 MHz non-licensed citizen band is proposed and experimented.

Objectives

The objective of this paper is to construct a PWS using APRS protocol on 78 MHz non-licensed citizen band. The prototype and results of this research is a proof-of-concept (PoC) of using such system on low VHF band especially the 78 MHz non-licensed citizen band and will be submitted for requesting the authority to allocate frequency slot for PWS or other data public usage applications. The remaining of the paper is organized as the following. Section II and section III elaborated on the design concept and design approach of the proposed system. Section IV presents the experiment and the results. The paper is concluded in Section V.

Design Concept

The proposed PWS system is shown as a diagram in Fig 1.

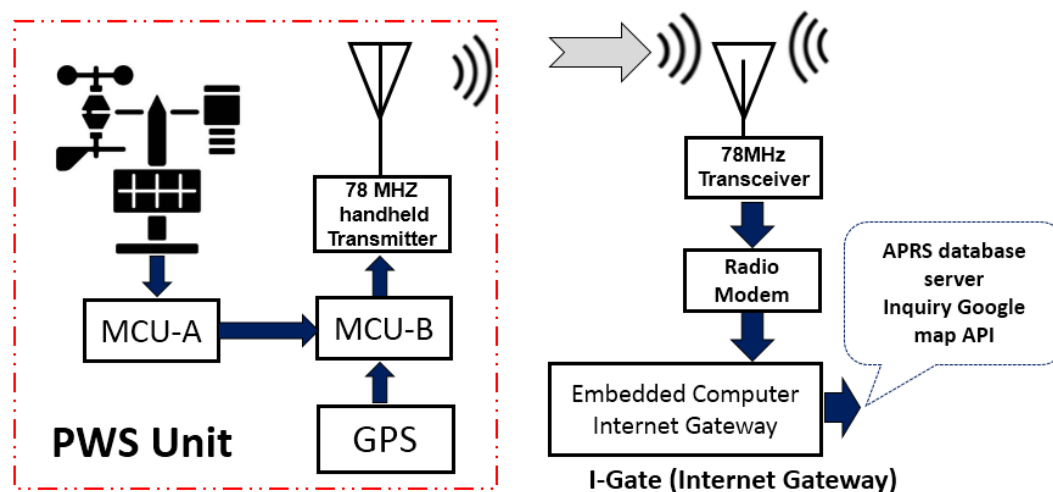


Fig. 1. Block diagram of the Portable Weather Station

A PWS unit works in beacon mode or transmitting only. It is programmed to transmit data in interval. The more frequent, the more power consumption. For experimental purpose, the transmitting interval is set to once every minute.

As shown in Fig.1 a PWS unit consists of an array of weather sensors connected to a GPIO of the MCU-A with 2400 bps in serial with 0.5 second period. The MCU-B combined weather data from the MCU-A and GPS unit by polling the two groups of data using soft-serial technique, which converts digital GPIO to work as a serial port. Both data groups are formed to be an APRS package in the AX.25 data frame format by modulated data using 1,200 Hz for zero (0) and 2,200 Hz for one (1). The

modulated audio is fed to an audio input on a transmitter. The transmitter is set to transmit at 300 mW power.

The transmitted signal is detected and demodulated by an internet gateway (called iGate). Data are passed to a cluster of APRS database servers. The weather data and location of the sensors can be inquired by an application such as the APRS.fi [8] in real time.

Design Approach

The hardware and software of the PWS is shown as a block diagram Fig 2 and system flowchart in Fig 3.

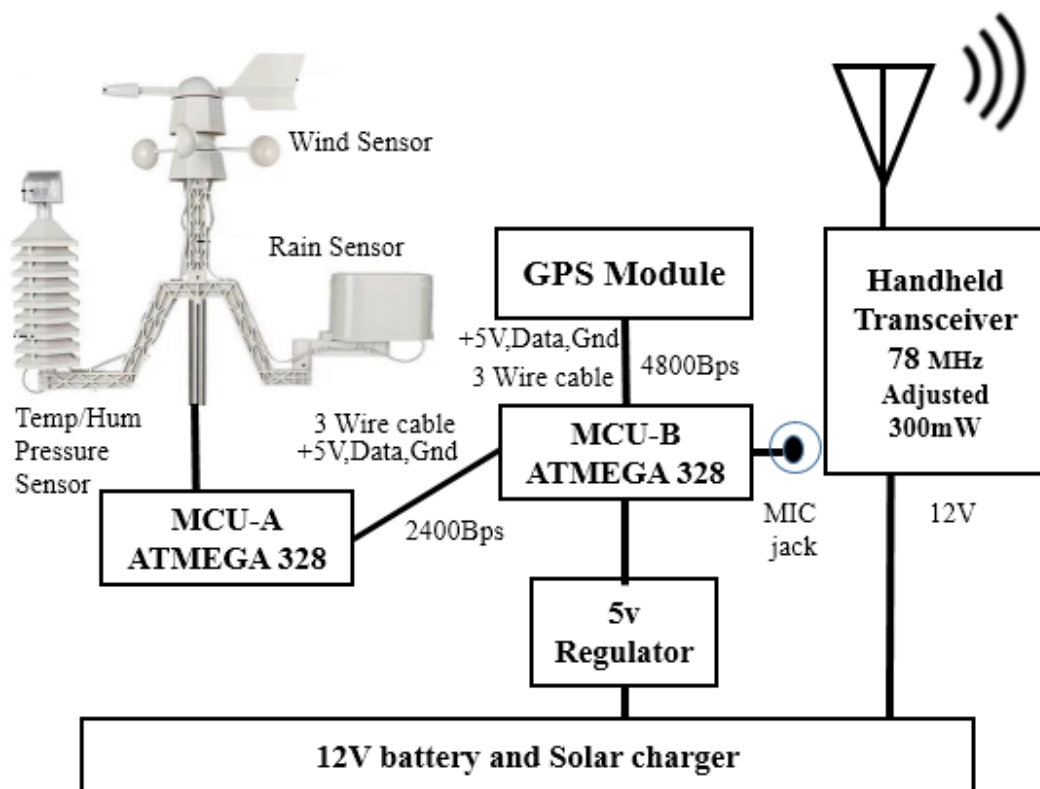


Fig. 2. Block diagram of Hardware

Both MCU-A and MCU-B are an AMTEL MCU chip code name ATMEGA 328 [4]. MCU-A works as sensor interfaces for the MCU-B. MCU-B polls data sensor and GPS data using the soft-serial technique, combine the twos, and modulated data using AFSK. The MCUs are programmed using Arduino Bootloader technique, which is convenient for programming with a public-available compiler.

The flowchart of both MCUs is shown in Fig 3. The MCU-A reads data from weather sensors connection and transforms data for serial communication.

Programming calculation for weather sensors are described as the following.

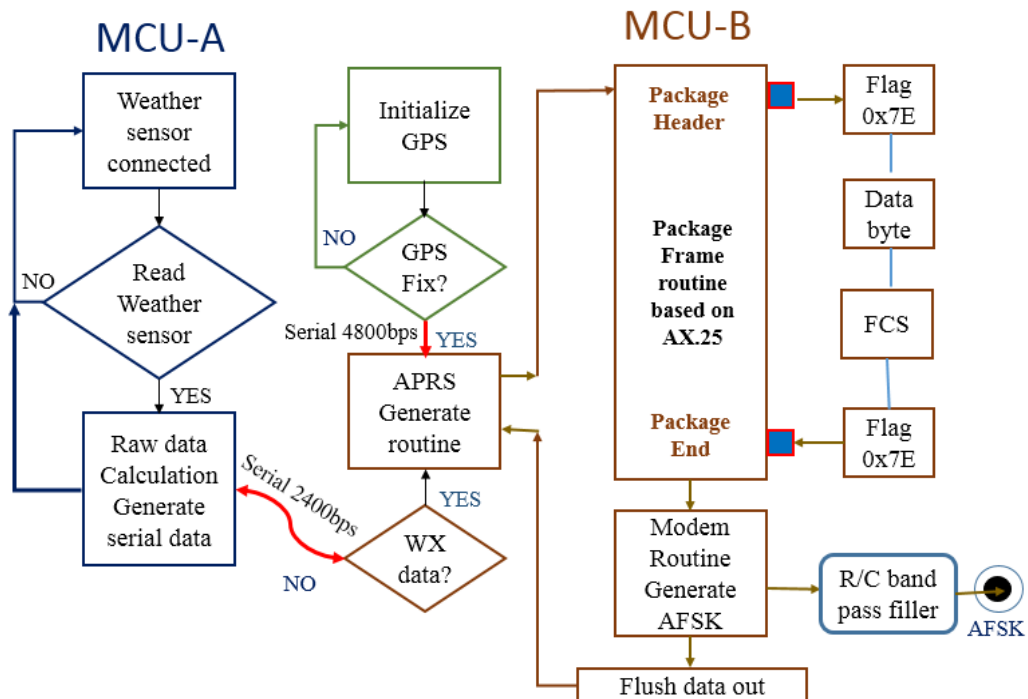


Fig. 3. Firmware Data flow

Raindrop: the MCU-A weather interface board has a built-in 1,440 bytes rain-specific data buffer that records an amount of liquid precipitation per minute. An output data stream consists of an amount of rainfall of the last minute, the last hour, and the last 24 hour.

Wind speed: the MCU-A weather interface board has a built-in 300 bytes wind speed data buffer to record real-time wind speed in a second, average wind speed of the last one (1) minute, and highest wind speed of the last five (5) minutes.

The rest of data in sequence are temperature, humidity, and ambient pressure in the interval of five (5) seconds.

Example: serial data of raw weather after sensor were reading:

C000s000g000t082r000p000h48b10022*3C

Total data size is 38 bytes, and data are transmitted at 0.5 seconds interval with the ending carriage/return (CR) data (0D, 0A)

Detail of each weather data:

c000: wind direction, (degree.)

s000: wind speed (1st minute, unit: MPH)

g000: Top wind speed (1st 5 minutes, MPH)

t082: temp (F)

r000: raindrop in the past hour (0.01 inches)

p000: raindrop 1st 24 hrs (0.01 inches)

h48: humidity (%)

b10022: barometer (0.1 hpa)

*3C checksum value, all data XOR sentence data to * (excluding *)

The NMEA format from GPS module provides latitude and longitude after position is fixed. The MCU-B polls data from both GPIOs with different bit rate and encodes to APRS WX data frame format.

The frame is a fixed format with header and ending with flags 0x7E as shown in Table I. The WX frame combines NMEA data as latitude (Lat) and longitude (Long) as shown in Table II. The modem module modulates data with with ASFK modulation. The AFSK modulated audio signal is fed to a bandpass filter in which it cleans up signal before fed it to the audio input of a 78 MHz band transceiver.

An example of raw data of complete weather report format according to Table II is shown below as complete raw data along with Lat and Long.

!1350.05N/10039.37E_090/009g013t086r000p000h30b0490

Table 1 AX.25 Data Frame

AX.25 UI Frame Format								
Flag 0x7E	Destination Address	Source Address	Digipeaters Address	Control Field (UI)	Protocol ID	Information Field	FCS	Flag 0x7E
1	7	7	0-56	1	1	1-256	2	1
Amateur Bell 202 / HDLC Frame Format								
Flag	Frame Payload						FCS	Flag
0x7E	16-238 octets						2	0x7E

Table 2 Complete Weather report format

Complete Weather Report Format — with Lat/Long position, no Timestamp								
! or =	Lat	Sym Table ID	Long	Symbol Code	Wind Directn/ Speed	Weather Data	APRS Software	WX Unit
1	8	1	9	1	7	n	S	uuuu
							1	2-4

A. Prototype unit

A prototype of the PWS is shown in Fig 4. Major modules in this prototype are a GPS module, MCU-A sensor interface unit, MCU-B WX unit, and a Motorola 78 MHz transceiver.

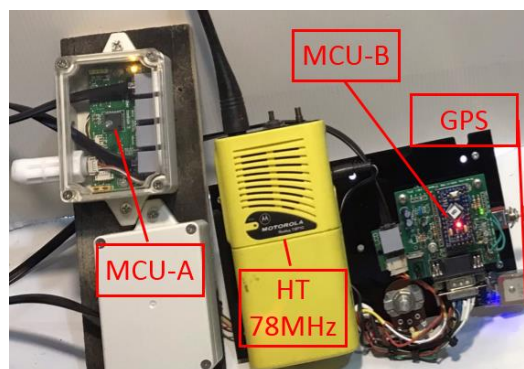


Fig. 4. A PWS Prototype Unit

B. Infrastructure of PWS

The infrastructure of PWS is described in Fig. 5.

The PWS transmits APRS data on the WX frame format through the audio input of the Motorola 78 MHz handheld transceiver. The transceiver is configured to have 300 mW output using a quarter wave omni-directional antenna with 0 dB gain.

The internet gateway (iGATE) demodulated received audio modulated signal and forwards the received WX data to APRS database clusters, where the data is retrieved and displayed using a web application or a mobile application. An application such as APRS.fi provides data by overlay over the Google map.

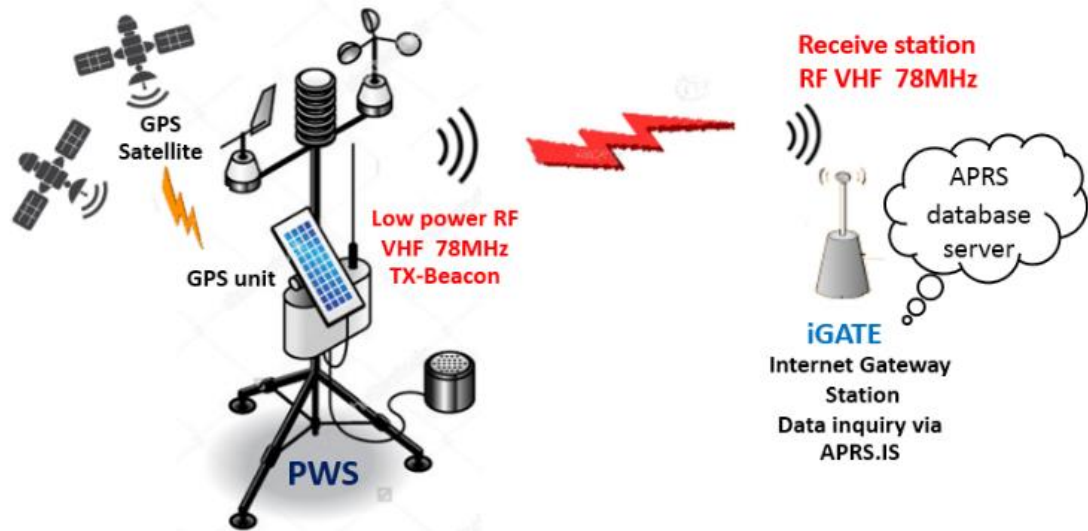


Fig. 5. PWS infrastructure

Experiment & Result

A. Experiment

For an experimental purpose the MCU-B was programed to transmit WX data beacon once a minute. The received and demodulated signal is shown as a raw data frame is shown in Fig 6.

```
2022-02-15 12:20:28 +07 RAST02: 123 bytes
0x00 R A S T 0 2 > H S 1 I F U , W I D E 1 - 1 , q A R , 7 8 M H Z :
      5241535430323e4853314946552c57494445312d312c7141522c37384d485a3a
0x20 ! 1 3 5 0 . 0 4 N / 1 0 0 3 9 . 3 9 E _ 0 9 0 / 0 0 8 g 0 1 3 t
      21313335302e30344e2f31303033392e3339455f3039302f3030386730313374
0x40 0 8 6 r 0 0 0 p 0 0 0 h 2 9 b 0 4 9 0 P M 1 . 0 : ( 0 ) P M 2
      3038367230303070303030683239623034393020504d312e303a283029504d32
0x60 . 5 : ( 0 ) P M 1 0 : ( 0 ) u g / m 3 V o l = 8 6 %
      2e353a283029504d31303a28302975672f6d3320566f6c3d383625
```

Fig. 6. Decoded Raw WX Data

The iGATE was assigned with a station ID as “78MHZ”, and the PWS unit was assigned a station ID as “RAST02”.

B. Results

The result of this experiment is shown in Fig 7 using the APRS.fi web application. The data are stored in the APRS.fi servers and shown over the Google map. More data details can be shown in a pop-up window. On the APRS.fi a line-of-sight (LoS) distance between the PWS and iGate was measured to be 2.7 km.

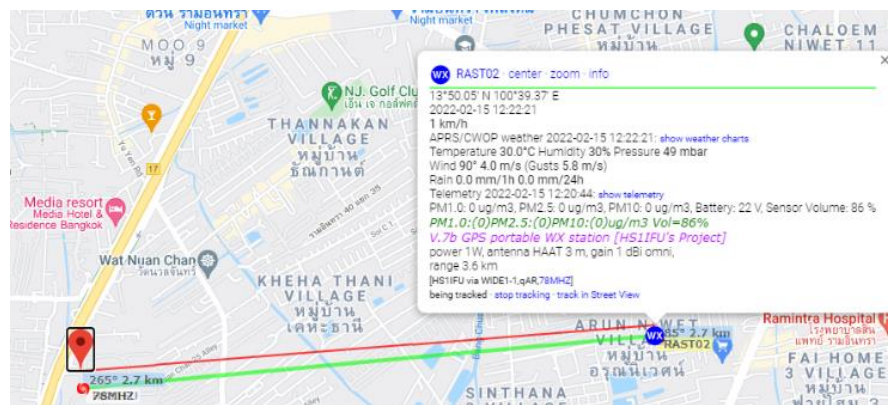


Fig. 7. APRS.FI overlay map

C. Validation method using Link Budget Calculation

Link budget calculation is a method of theoretical validating two points wireless communication. Link Budget parameter, for instances, receiver sensitivity (dBm), path loss, antenna gain, and gain loss, etc. [9], for validating are shown in Table III.

The purpose of this calculation is to validate that wireless communication between the PWS and iGate is theoretically possible over the minimum distance of two (2) kilometers. The model of the validation is shown in Fig 8.

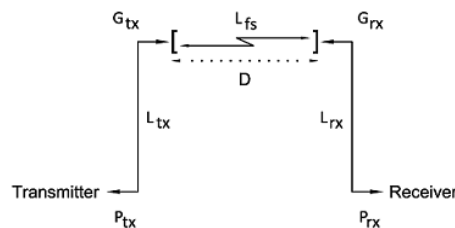


Fig. 8. Link Budget parameters

Table 3 Link budget variables

Transmit Parameter		
P_{TX}	Transmitter power	24.77 dBm (300mW)
G_{TX}	Transmitter gain	0 dBi
L_{TX}	Transmitter losses	1 dB
Terminal Parameter		
L_{FS}	Free space path loss	76.30dB
L_M	Miscellaneous losses	3dB
Receiving Parameter		
G_{RX}	Receiving gain	0 dBi
L_{RX}	Receiving losses	3 dB
D_{max}	Maximum distance	2000 m (2Km)
Link Budget		
P_{RS}	Receiver sensitivity	-64.28 dBm
P_{RX}	Receiving power	-58.53 dBm

According to the transceiver specification the receiver sensitivity (P_{RS}) of the prototype transceiver has signal-to-noise (S/N) and distortion ratio = 0.18 μ V or equivalent to -64.28 dBm.

The wireless link communication is qualified or validation when $P_{RX} > P_{RS}$ [9]; in other words, the receiving power is greater than the receiver sensitivity.

$$P_{RX} = P_{TX} + G_{TX} - L_{TX} - L_{FS} - L_M + G_{RX} - L_{RX} \quad (1)$$

$$L_{FS} = 20 \log_{10}(4\pi D_{max}/\lambda) \quad (2)$$

Where wavelength $\lambda = c/f$, c is light speed, and f is an operating frequency.

According to eq (1) and the parameters in Table III with $f = 78 \text{ MHz}$, the result shows that $P_{RX} > P_{RS}$. Therefore, the wireless communication link between PWS and iGATE is validated.

Conclusion

A Portable Weather Station using APRS protocol on 78 MHz band is proposed and experimented. The focus of this research is to verify that two points wireless communication on 78 MHz non-licensed citizen band is practically and theoretically possible. As for a proof-of-concept purpose the minimum distance between the two communication points is set to be at least two kilometers. Practically, the prototype showed that a connection between the PWS and iGate was established. The received data are stored in the APRS.fi servers. Theoretically, the link budget was calculated. The result validated that a communication between two points is possible. In conclusion communication between a PWS and iGate using APRS protocol on 78 MHz band over distance of two kilometers is proven. The success establishment of the system creates opportunities for public to share weather data via PWS using radio network communication. Such tremendous volume and velocity of weather data over wide coverage area can benefit in analyzing and forecasting weather condition. An accurate early warning system based on the forecasting weather condition can save people life.

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Legal Measure to Solve the Inequality of Right to Health Care Service between Social Security and Universal Coverage Scheme (Gold Card)

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Abstract

The objective of the research is to suggest and develop the law to solve inequality problems related to the right of medical treatment between patients in social security system and universal coverage scheme system. The study was achieved by document research and in-dept interview.

In this study, it was found that insured person under social security system regularly pays contributions to Social Security Fund, but insured person has lesser right than person in universal coverage scheme system, which is basic service, for example, cancer treatment, dental service, maternity and end of life care.

The authors suggest that amendments in National Health Security Act B.E. 2545 (2002) and related laws shall include changes related to right to medical treatment and right to medical treatment information between Social Security Office and National Health Security Office should be shared.

Keywords: universal coverage scheme, gold card, social security

Background and Statement of the Problem

Constitution of The Kingdom of Thailand Section 27 provides that “All persons are equal before the law, and shall have rights and liberties and be protected equally under the law”. Constitution of The Kingdom of Thailand Section 47 provides that “A person shall have the right to receive public health services provided by the State”. An indigent person shall have the right to receive the free of charge public health services provided by the State as in the law. In Thailand, the important health service system cover the majority of population as follows: 1) according to National Health Security Act B.E. 2545 (2002), universal coverage scheme system covers 48.26 million people (National Statistical Office, 2021, n.d.) 2) according to Social Security Act, B.E. 2533 (1990), social security system covers 19.22 million people (National Statistical Office, 2021, n.d.).

Social security system has been established since 1990 for security and surety in life of private sector employees. Social security system has been developed as follows; in 1990, entrepreneur with 20 employees was required to register to Social Security Office, in 1993, entrepreneur with 10 employees or more was required to register to Social Security Office and in 2022, entrepreneur with 1 employee or more was required to register to Social Security Office (Thammasawas, 2017). Moreover, in 1990, social security law provided the protection to employees in specific cases as

follows; 1) sickness 2) maternity 3) invalidity 4) death. Later on, social security fund give protection to employees in many health issues as follows; 1) injury or sickness 2) maternity 3) invalidity 4) death 5) child 6) old-age 7) unemployment (Social Security Office, 2021, n.d.). At present, Social Security Office, Ministry of Labour supervise to social security system and universal coverage scheme system has been introduced since 2001 in Samut Sakhon, Pathum Thani, Yasothon, Nakhon Sawan, Phayao and Yala and covering all province in 2002. National Health Security Act B.E. 2545 (2002) has been issued and law reserve the right since 2002, which can proceed project continuedly. National Health Security Act B.E. 2545 (2002) Section 5 provides that “Every person shall enjoy the right to a standard and efficient health service as provided in this Act. The Board may determine that, at each visit, beneficiaries of the health service shall contribute a fee at the specified rate, except for the indigents or other persons whose contribution is exempted by the Board.” Basically, universal coverage scheme system aims to create health security for everyone, who cannot obtain protection from social security system and civil servant medical benefits and service. In present time, universal coverage scheme system is supervised by National Health Security Office, which National Health Security Office’s status is not ministry, bureau or department, but, National Health Security Office is state agency and juristic person under supervision of Minister of Health. It can be seen that both social security system and universal coverage scheme system are established for sickness of person, however, social security system gives security and surety in life of employees and universal coverage scheme system gives health security to everyone, who cannot obtain protection from social security system and civil servant medical benefits and service. Both social security system and universal coverage scheme system have been evolved time to time following by its guidelines. However, currently, social security system is different than universal coverage scheme system and result in inequality problems related to right to medical treatment between employees in social security system and people in universal coverage scheme system. For example, in case of cancer patient is entitled to access to obtain cancer treatment from both systems, but, in social security system, patient shall visit registered hospital, which has to wait long queue and if patient demands to visit other hospital, he or she, needs transfer letter from one hospital to another, which takes time. This is an obstacle for patients with cancer who need a prompt service for more efficiency treatment. In universal coverage scheme system, cancer patient, can visit any capability hospital. Then, patient can obtain a quick treatment in order to minimize a severer symptom and increase opportunity to cure in some types of cancer (Radiologic Technologists in Southern of Thailand Hospital, 15 November 2021).

Hence, it is necessarily to study legal measure and other measures to solve inequality problems related to right to medical treatment between patients in social security system and universal coverage scheme system.

Objectives

1. To examine concepts related to social security system and universal coverage scheme system

2. To examine and analyze problems related to right to medical treatment between patients in social security system and universal coverage scheme system
3. To develop law and solve inequality problems related to right to medical treatment between patients in social security system and universal coverage scheme system

Expected benefits

1. Conceptual knowledge about concepts related to social security system and universal coverage scheme system
2. Concrete difference related to right to medical treatment between patients in social security system and universal coverage scheme system
3. Proposed policies for law development related to solve inequality problems related to right to medical treatment between patients in social security system and universal coverage scheme system

Research Methodology

This research is based on a qualitative research and analysis from documents and interviews as follows:

1. The study included a study of documents, concepts and theories as a basis for research, for example, concepts and theories related to social security system and universal coverage scheme system, were studied from books, textbooks, research reports, theses, using the library and library databases.
2. An informal interview was conducted. A total number of 30 key informants who are related to the right of medical treatment were purposively chosen.

Research Results and Discussions

The authors found that universal coverage scheme system is basic right for people and people has right to access basic service equally with no expenses. However, at present, insured person in social security system, who regularly pays contributions to Social Security Fund, has lesser right than person in universal coverage scheme system, which is basic service, for examples as follows:

1. Cancer Treatment
- 1.1 Scope of Health Service

Social security right provides that insured person in social security system is entitled to access to cancer treatment service without expenses and unlimited number of services regarding to ten types of cancer as follows:

1. Breast cancer
2. Cervical Cancer
3. Ovarian Cancer
4. Nasal Cancer
5. Lung Cancer
6. Esophageal Cancer
7. Colon Cancer and Rectal Cancer
8. Liver Cancer and Cholangiocarcinoma
9. Bladder Cancer

10. Prostate Cancer

Apart from the above mentioned cancers, insured person in social security system is entitled to access to cancer treatment services for not exceeding 15000 Thai Baht per year paid by Social Security Office (Krisdika, 2021, n.d.).

Universal coverage scheme right (gold card) provides that person with national health security system is entitled to access to all type of cancer treatment services without expenses and unlimited number of services.

1.2 Quickness of Patients Transfer

Social security right provides that cancer patient in social security system shall visit Social Security Hospital and in case of Social Security Hospital is incapable hospital for cancer treatment and medical doctor select the hospital to transfer patient to capability hospital with medical history data. However, in case of incomplete medical history data, patient shall spend much more time and more expense for travelling to incapability hospital to collect more medical history data and patient transfer letter from one hospital to another expire in three months. These would result in waste time and waste expense for travelling to incapability hospital to collect new patient transfer letter from one hospital to another, "Patient informed that patient transfer letter is complicated because patient transfer letter from one hospital to another expire in three months and patient's relative has to travel back to southern of Thailand and return back to Bangkok, which traveling cost is expensive (averaged 6,000 Baht per trip)"(Social Security Officer in Southern of Thailand Hospital, 24 November 2021).

Universal coverage scheme right provides that person with national health security system including cancer patient, shall visit registered hospital. In the case of registered hospital is incapable hospital for cancer treatment, medical doctor and patient who agree to select the hospital with capability to transfer patient without patient transfer letter from one hospital to another by hospital officer will cooperate and send medical history data to the capability hospital. These could solve the problems of incomplete medical history data and travelling for extending patient transfer letter from one hospital to another. Moreover, universal coverage scheme system provides database in computer system, which can inform medical doctor and patients number of patients on waiting list in each hospital. Therefore, medical doctor and patients can select lesser number of patients visits and has more opportunity to access to faster medical treatment.

2. Dental Service

For the social security rights insured person in social security system, who has paid contribution for a period of not less than three months, is entitled to access to service regrading to tooth extraction, filled tooth scaling and impacted tooth extraction for not exceeding 900 Thai Baht per year in Social Security Hospital (Krisdika, 2021, n.d.).

Universal coverage scheme right provides national health security system to person who is entitled to access to service regrading to tooth extraction, filled tooth scaling and impacted tooth extraction without expense.

3. Maternity

Social security right states that insured person in social security system is entitled to be paid childbirth for 15,000 Thai Baht and is entitled to be paid 5 times to antenatal care for 1,500 Thai Baht as follows (Ratchakitcha, 2021, n.d.):

1. Pay actual rate for not exceeding 500 Thai Baht with a period of not exceeding 12 weeks of pregnancy
2. Pay actual rate for not exceeding 300 Thai Baht with a period of between 12 weeks to 20 weeks of pregnancy
3. Pay actual rate for not exceeding 300 Thai Baht with a period between 20 weeks to 28 weeks of pregnancy
4. Pay actual rate for not exceeding 200 Thai Baht with a period between 28 weeks to 32 weeks of pregnancy
5. Pay actual rate for not exceeding 200 Thai Baht with a period between 32 weeks to 40 weeks of pregnancy (Office of the Official Information Commission, 2021, n.d.)

Universal coverage scheme right states that person with national health security system is entitled to childbirth and antenatal care 5 times on week 12, 18, 26, 32 and 38 without expense.

4. End of Life Care

Social security right states that insured person in social security system, which are patients with end of life and palliative care, has no right to morphine for relief of pain (Social Security Officer in Southern of Thailand Hospital, 24 November 2021).

Universal coverage scheme right states that person with national health security system, which are patients with end of life and palliative care, has right to morphine for relief of pain without expense (Social Security Officer in Southern of Thailand Hospital, 24 November 2021).

Summary of the Study and Recommendations

From the study of relevant concepts, theories, and documents concerning to Social Security Act, B.E. 2533 (1990) and National Health Security Act B.E. 2545 (2002), the recommendation and measure were found as follows:

1. Short Term Measure

Right to medical treatment information between Social Security Office and National Health Security Office should be shared to develop Social Security Fund in consistent with the same direction to universal coverage scheme system.

2. Long Term Measures

The authors suggest that amendments in National Health Security Act B.E. 2545 (2002) shall include changes related to right to medical treatment under National Health Security Act B.E. 2545 (2002). The basic service and right to medical treatment in related laws shall be improved to be better than National Health Security Act B.E. 2545 (2002) as follow; Section 5 Every person shall enjoy the right to a standard and efficient health service as provided in this Act, except for any law impose upon person shall enjoy the right to a standard and efficient health service not lower than those provided in this Act.

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Evaluating Corporate Governance Models: Managing Convergences and Divergences

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Abstract

The evaluation of the literature on corporate governance models highlights its importance around the world and depicts how academic study has lagged in investigating this topic. Corporate governance models seem to have largely enhanced corporations worldwide that have practiced them. This paper aims to evaluate and assess the unequal positions in the convergence-divergence discussion in corporate governance models; advise decision-makers in business organizations, and offer recommendations. This paper explains the fact that no corporate governance model is flawless. Corporate models are “no cap fits its all approach”; however, the management team should go for what is suitable for their organization.

Keywords: Corporate Governance Models, Convergence and Divergence, Anglo-Saxon Model, Continental-European Model and Japanese Model, Management.

Background and Statement of the problem

There has been an increasing conversation on which corporate governance model fits corporations. As a result, some businesses tend to borrow models alien to their environment or culture, thereby creating a bigger problem in their organization. This paper intends to create awareness of understanding and application of the convergences and divergences of these models.

Objectives

The objectives of this paper are as follows;

1. To demonstrate that there are no "one cap fits it all" in corporate governance models
2. To discuss convergences and divergences of corporate models

Expected benefits

The expected benefits are as follows;

1. Improve decision-makers in business organizations be aware of convergences and divergences
2. Help stakeholders apply the suitable Model that can improve business performance and avoid unnecessary problems

Research Methodology

This paper is a conceptual effort based on theories/models and reports collected from the literature review. The review produced the study method, which was created as follows: (a) to evaluate and assess the unequal positions in the convergence-divergence discussion in corporate governance models; (b) to explain corporate governance (c) and offer a recommendation.

Research Results

The significance/results of this paper are as follows

- (a) It will help decision-makers in to apply a suitable model in administering their business
- (b) can improve business performance and avoid unnecessary problems

Summary of the Study

The importance of the corporate governance model in addressing business challenges cannot be overemphasized. This paper has discussed the convergence and divergence corporate governance model in addressing business challenges facing our world today. It has also discussed corporate governance models practiced in many countries. Therefore, decision-makers can be appropriately guided when applying the corporate governance model.

Introduction

Corporate governance is an essential aspect of handling business organizations around the globe. The significance of corporate governance was recognized and elevated because of the failure of notable organizations such as Enron and WorldCom in 2002 (BBC News, 2002a; 2002b). Nevertheless, more recent scandals, like Wells Fargo's account fraud between 2011-2016 (BBC News, 2017; Egan, 2016) and the Volkswagen emissions scandal in 2015 (BBC News, 2015), has shown that illegal and unethical activities are still dominant in businesses (Egan, 2016). Corporate governance and its models seek to address challenges in business dealings and, at the time, create opportunities and benefits for stakeholders.

The purpose of this paper is to evaluate and assess the unequal positions in the convergence-divergence discussion in corporate governance models and to offer recommendations.

Definition of Corporate Governance

The agency theory influences a study of corporate governance, which could be traced to Adam Smith (1776) in the *Wealth of Nations*. He maintains that a manager who does not own a stake in the company will make selfish decisions. Among numerous definitions of corporate governance, Okpara (2011) defines it as a mechanism that deals with managers' management style and accountability to stakeholders. However, Sarbah and Xiao (2015) further explain it as structures and processes for the direction and control of organizations. Furthermore, Ugowe (2016) describes corporate governance as a critical part of the risk reduction approach for firms. Ferrell et al. (2015) stated that corporate governance is a formal system of accountability, oversight, and control to remove the opportunity for management and employees to make unethical decisions (p. 52)

Corporate Governance Models

Many countries view and understand corporate governance systems differently, and these disparities reflect in legal systems, cultural systems, and economic environments. The corporate governance system is based on three main leadership models, and they are as follows;

- 1) Anglo-Saxon (sometimes called the outsider based), based on entrepreneurship and private property.

1) Continental-European, which is characterized by significant shareholders' interests

2) Japanese is specific to an oriented-control governance system (Ungureanu, 2012).

It is believed that the continental-European and Japanese systems can be referred to as insider-based. Notwithstanding, some scholars and practitioners (Tomasic & Bottomley, 1993; Lipton, 2002) have argued that the German and Japanese models are similar. Therefore, the Anglo-Saxon type of corporate governance system and the continental-European and Japanese types of the corporate governance system's simple forms of ownership structures are described in Figure 1.

Outside-based Insider-based (represented by corporate)

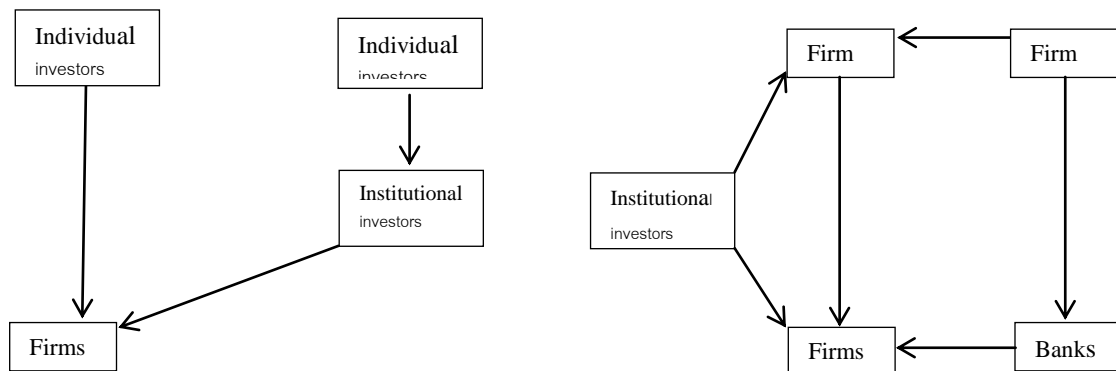


Figure 1 Ownership Structures in the Two Main Corporate Governance Models

Source: Farrar et al., 2001: 418.

Figure 1. depicts that individual and institutional investors could become firms' shareholders; individual investors could also invest in firms categorized as institutional investors for other firms. However, the ownership structure in the German and Japanese models is more multifaceted. For example, there often exists an interlocking of ownerships among firms, banks, and other institutional investors, as shown in the right-handed part of figure 1.1. In addition, Anglo-Saxon models often exist in countries that are more oriented toward market economies and less government intervention; in contrast, the German-Japanese Model is usually successful in countries where social values are given at least the same weight as economic values.

Anglo-Saxon Model

According to Allen and Zhao (2007), the Anglo-Saxon Model (sometimes referred to as the United States and the United Kingdom or outsider model) focuses on guaranteeing the organization is managed based on stockholders' objectives and goals to maximize wealth for them. The outsider model is characterized by the following, according to Nestor and Thompson (2000);

- 1) Recognized dominance of stockholder's welfare in the organization act;
- 2) Robust protection of minority shareholders in the securities' guidelines, laws and regulations;
- 3) Comparatively good rules for disclosure.

It is known for its priority in the group of autonomous people and individual stockholders. The executives or top management are accountable to the board

members and stockholders interested in profitable activities and dividends (Emeh, 2012).

The Anglo-Saxon type of corporate governance model comprises internal and external mechanisms, as demonstrated in Figure 1.2. Shareholders appoint a board of directors who then select and monitor the management; simultaneously, managers operate the firm's core functions and report directly to the board of directors, representing shareholders. Another essential point to note is that there is only a one-tier board in the Anglo-Saxon Model. The one-tier board is often composed of executive directors and independent directors, and the number of the board members varies according to the countries' regulations. The right-hand side of Figure 1.2 illustrates that external market forces, such as competitive factors in the product market, capital market, corporate control market, and labor market, act as other monitoring mechanisms for management. Competitive factors in the product market play a vital monitoring role in the firm's performance; vis-à-vis, its competitors illustrate whether managers are competent and hard-working. The Anglo-Saxon ownership structure functions by way of dispersed share ownership as described in the Berle and Means type of corporation (Berle & Means, 1932).

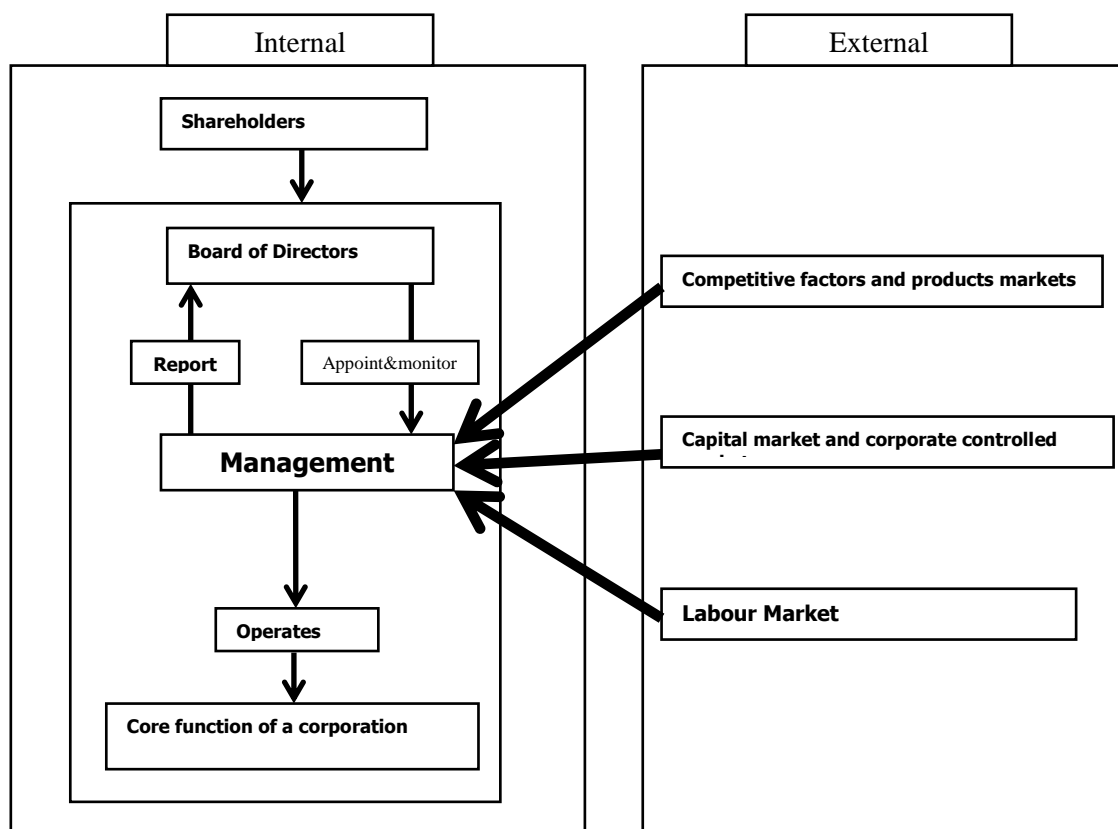


Figure 2 Anglo- Saxon Model type of Corporate Governance Model

Source: Broadman (2001: 20)

Continental European Model

According to Allen and Zhao (2007), in German, for example, the laws are pretty unambiguous or explicit in that executives or top management do not have the fiduciary responsibility to seek the welfare of the stockholders.

This is the system of co-determination which means that in large corporations, employees have an equal number of seats on the supervisory board of the company, which is ultimately responsible for the strategic decisions of the company (Charkham, 1995: 2).

The two-tier board comprises the management board (Vorstand) and the supervisory board (Aufsichtsrat). Furthermore, Proctor and Miles (2002) explained that the supervisory board is charged with appointing the management board rather than shareholders, as in the case of the United Kingdom and the United States of America. The continental-European Model, according to Ungureanu (2012: 627), is distinguished by a significantly high frequency of assets because "shareholders have similar interests with the organization and participate in its management and control". Executives and top management are accountable to both stockholders and stakeholders. In the German system of governance, the organization is perceived as a blend of stockholders from concern different interest bodies intended to regulate the interest and goals of the nation (Ungureanu, 2012); for example, within organizations, it is typical to discover members from the executive board supervisory board members. First, they efficiently control and supervise the organization; but must be under the supervision of the second, most company's strategies are, essentially, approved by the supervisory board. This kind of governance framework improves a mechanism for control, supervision and administration.

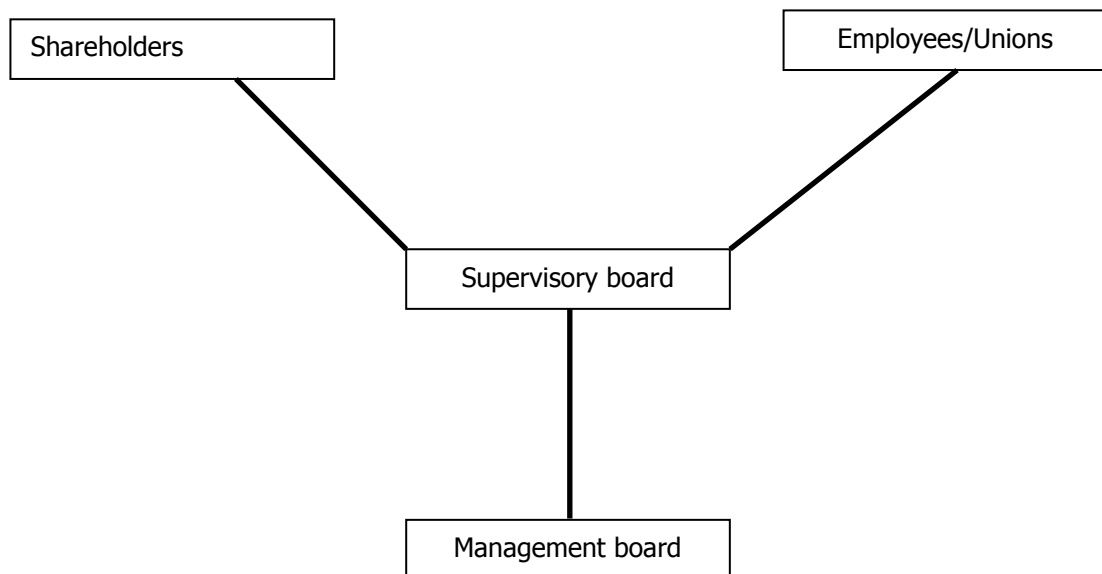


Figure 3 Continental European Model

Source: Charkham (1995: 18)

Japanese Model

In the Japanese Model, the ownership structure is in the joint-stock company (*Kabushiki Kaisha*), which is equivalent to a publicly listed company in the Anglo-Saxon Model (Proctor & Miles, 2002), is characterized by "stable shareholders" and employee share ownership (Proctor & Miles, 2002). The Japanese corporate governance model is perhaps the most extreme example of governance practices. Allen and Zhao (2007) argued that, rather than concentrating on the micro viewpoint of organization maximizing wealth for shareholders, the Japanese Model has conventionally been involved with a larger or macro view. One approach or method of explaining this Japanese Model is that it is engaged with guaranteeing that organizations are controlled so that community's resources are managed cleverly by recognizing a variety of stakeholders such as workers, consumers and suppliers, alongside stockholders.

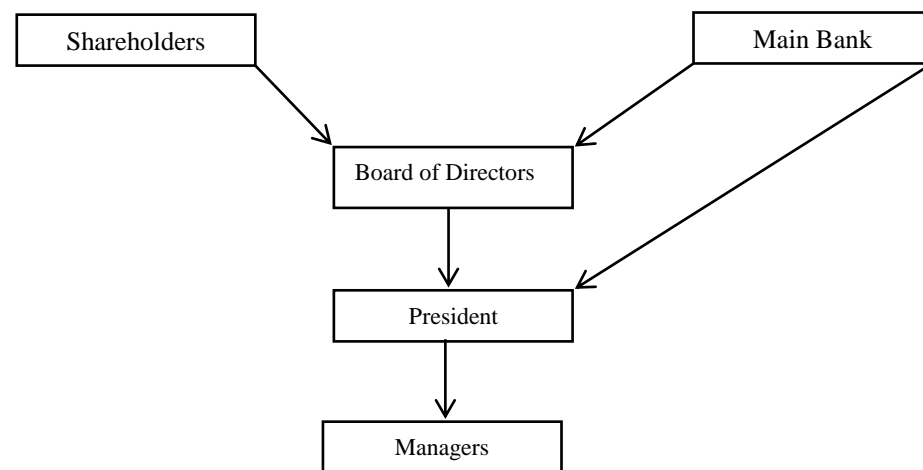


Figure 4 The Japanese Model

Source: Ungureanu (2012)

Moreover, this Model brings a modest investment notion into the organization, assigns manufacturing groups that consist of organizations with similar objectives and standard policies. According to (Ungureanu, 2012), the main focus of this Japanese Model is to make sure that "managers and top executives' responsibility manifests itself in relations with shareholders and keiretsu, a network of loyal suppliers and customers" (p. 629).

Furthermore, (Ungureanu, 2012) explained that "Keiretsu stands for a complex pattern of cooperation and also competition relationships, known by its adoption of defensive tactics in hostile takeovers, thus minimizing the level of opportunism of parties involved and keeping long-term business relationships" (p. 629). Most organizations in Japan are connected with groups of business associates. The attribute model of governance is controlled by two types of constitutional affiliations: one of corporation among stockholders and stakeholders and a ratio among executives and stakeholders. The certainty of this structure appears from the reality that the actions of an organization ought not to be distressed by the associations between the involved parties, e.g., relationships that generate risks.

Managing Convergences and Divergences of Different Systems Worldwide

The research on models of corporate governance in different nations presents the picture of the particular significant characteristics of Japanese, continental-European and Anglo-Saxon. A critical look reveals that the features of the above-discussed three principles of models contain meaningful relationships and discrepancies, as shown in Table 1

Table 1 Main Features of Corporate Governance Models

	Anglo-Saxon	Continental-	Japanese
oriented toward	Stock market	Banking market	Banking market
Considers	Shareholders' property rights	Shareholders' property rights and the company's relationships with its employees	Stakeholders' interests (keiretsu)
Shareholding Structure	Dispersed	Concentrated	Concentrated (cross Possession of shares)
Management	Executive directors Non-executive directors	Supervisory board Board of directors	Board of directors Revision commission
Control System	External	Internal	Internal
Accounting System	GAAP	IFRS	GAAP and IFRS

Source: Ungureanu (2012)

According to Ungureanu (2012), the United States and United Kingdom managers and executives are primarily trained in marketing and economics. Their fertility is superior to their Japanese and French counterparts, which managed to live in the organization long enough. Most executives and top management in the United States are non-citizens compared with their Japanese, French and Italian counterparts, where the condition is entirely the reverse. Evaluating the three main corporate governance models reveals two parts that present a foundation for assessment or assessment. The first part examines the structure (for an instant, the rights are precedence), and the second part describes the evaluation of governance usefulness (the extent to which priority requests are supported). Making the most of the shareholders' resources is differently explained in each country or Model, and the holders of rights are dissimilar in many countries.

The Anglo-Saxon system highlights the role of a free market, based on exercising control over the organizations' shareholders. On the other hand, the Japanese system concentrates mainly on trade networks. It acts in a mutually dependent method and the welfare of all concerned groups, mainly via joint management and supervision. In terms of continental-European, the classic example is the German system. Organizations are considered entities that maximize wealth, making the markets monitor their economic activity because the yield is the hub of national wealth, "interests of employees and creditors are a control factor and stimulation in obtaining gain" (Ungureanu, 2012: 632).

Table 2 reveals the strengths and weaknesses of the three main reviewed models strengths and weaknesses.

Table 2 Strengths and Weaknesses of Governance Models

	Anglo-Saxon	Continental-European	Japanese
Strengths	Continuous discipline	Multiple-risk carriers	Decreased optimism
	Transparency	Mutual benefit	Direct influence of owners
Weaknesses	Failure	Slow reaction	Resistance to change

Source: Ungureanu (2012)

The Japanese Model is hard to comprehend for foreigners. This Model is based on constitutional acceptance at a national stage of a blend of government and individual assets from a traditional viewpoint. Everybody has the right to a reasonable portion of everything severely required for well-being. Just hypothetically, the rights of assets and privileges of claims are similarly separated among members.

Even though Japanese firms bear a resemblance to the framework of those in the United States, the interests of shareholders are over-ridden. Their situation is unrelated to their methods; Japanese firms with one-quarter of action are considered less potent because of low capital, and they do not matter. The governance systems in the German and Japanese firms are distinguished by the significant involvement of stakeholders, particularly financial institutions, which increase the effectiveness of corporate governance and provide a competitive edge in both Japan and Germany.

In contracts, The U.S system or Model restrains stakeholders' power the power of such stakeholders, pointing to incompetence and high transaction cost from managers. On the other hand, Japanese and German models focus on developing private-public corporations that enable a potential competitive edge by dropping or reducing transaction costs and cost of risk capital. Table 3 reveals how the power of the members in business activities differs regarding claims acceptance in each country's legal system.

Table 3 Degree of Influence of the participants according to the legal system system

Legal system	USA	Germany	Japan
Importance of the Participants	Individuals	Business network	Banks
	Institutions	Banks	Business network
	Business network	Government	Employees
	Employees	Institutions	Government
	Government	Individuals	Individuals
Issues Covered by Governance	Banks	Employees	Institutions
	Capital market	Transactions	Corporation's network
	Financial performance	Return on social capital	Return on human capital
Evaluating the Governance Efficiency			

Source: Ungureanu (2012)

In the Anglo-Saxon governance system, board members are nominated by the shareholders, making up a blend of the organization's external and internal board of top management members. After being selected, the board members decide and outline which business strategies the company will pursue. The responsibility of the executives and top management is to implement or execute the plan approved by the board of directors. Investors have little influence apart from electing the members of the board.

The boards' size is approximately similar to the United States and the United Kingdom and is typically about 10-15 persons. For example, in the United States, the more significant part generally is external directors of the company, while in the United Kingdom, the minor component is insiders. However, in the Japanese Model, stockholders are presumably more significant than those stockholders in the United States and the United Kingdom. For instance, in the Japanese Model, it is natural for stockholders to recommend board members and vote directly for them. Therefore, the issue of independent directors in Chinese firms is different from the United States, United Kingdom, and Japan.

Kakabadse, Yang, and Sanders (2010) conducted an empirical study of the usefulness of non-executive board members in the public firms of China to analyze whether board members with fellow members who are independent operate as efficient corporate governance mechanisms in Chinese public companies. This was done by analyzing four attributes of non-executive board members that influence their usefulness, to be exact, "their degree of independence, information, incentive, and competence" (p. 1063). The outcome of their study showed that the development of a non-executive director's system in China is in its childhood.

Allen and Zhao (2007) revealed that 97% of residents in Japan believe every stakeholder is significant and only a tiny 3% believed that stockholders' welfare should come first. However, the situation is slightly the same in German 83% and French 78% individually, observed affirm as being for all stakeholders.

Table 4 Whose Company It Is?

	Stakeholders	Shareholders
Japan	97%	3%
Germany	83%	17%
France	78%	22%
USA	22%	76%
UK	29%	71%

Source: Allen and Zhao (2007)

Conclusion

In summary, a critical look shows that continental-European and Japanese models is common for employees to be granted family allowances and special allowances for small children. These differences underscore the fact that, in the United States and the United Kingdom, the firm is designed to create wealth for shareholders; whereas, in Japan, Germany, and France, a firm is a group of people working together for their common benefit (Allen & Zhao, 2007: 5-6).

Recommendations

Although there have been studies (Krenn, 2016 & Emeh, 2012) on corporate governance models and their convergences and divergences, this paper has some recommendations.

First, company directors must have better information on which Model best suits them depending on where they are and the background of stakeholders. The CEO or the management team should understand their environment and stakeholders for better performance. Above all, the management team need to be able to find answers to their questions; this can be done by accessing a piece of professional advice.

Secondly and lastly, this paper recommends that boards balance convergences and divergences. No corporate governance model is perfect. No cap fits its approach. The management team should go for what is suitable for their organization.

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The Developing of Training Curriculum in English for Hotel toward International Standards Focusing on Task Base Learning to Promote Communication Skills Case Study of Asia Airport Donmuang Hotel Staffs

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Abstract

The purposes of this research were; 1) To study the needs and requirements of training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills of Asia Airport Donmuang Hotel Staffs 2) To develop and test the effectiveness of training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills according to the criteria 75/75 3) To compare the achievements in using training curriculum in English for Hotel toward international standards focusing on task base learning to promote communication skills of trainees hotel staffs before and after training 4) To study the satisfaction of the hotel staff trainees with training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills

The sample was a group of 15 staffs of Asia Airport Donmuang Hotel by using purposive sampling classified as hotel staffs in the front desk of 3 people, food and beverage service department 8 people, housekeeping department 2 people, and porter department 2 people. Conduct an experiment by having hotel staffs take a pre-training test. The training is according to the English for Hotel toward International Standards 10 chapters. It takes 30 hours to study, 6 hours before and after exams, a total of 36 hours by online training.

The instruments used for gathering data consisted of; 1) The Training requirements and the content required to obtain from the training questionnaire 2) The documents and Instructional document for teaching English for hotels towards international standards 3) The pretest and the posttest for achievement on communication skills in English for hotel toward International Standards 4) The satisfaction questionnaire of the English for the hotel toward International Standards. The data analysis using content analysis and descriptive writing. The statistics used in this research consisted of the questionnaires survey of hotel staff training needs and content by using the percentage value (%), cognitive analysis and pre-test and post-test assessment and evaluation skills by using mean (\bar{x}) and standard deviation (S.D.). Evaluate the effectiveness of documents and teaching materials by using the efficiency criterion of teaching materials $E1/E2=75/75$. Compare the learning outcomes of hotel staffs before and after training by using a dependent t-test. Analysis of Hotel Staffs satisfaction with training courses by finding the mean (\bar{x}) and standard deviation (SD) and interpreting the level values according to the Likert Scale method.

The results of the study were as follow:

1. There were needs for training curriculum in English for hotel toward international standards focusing on task base learning to promote communication

skills in content, language functions and skills, learning activities, and evaluation which congruent toward hotel situations.

2. The efficiency score of the English for hotel toward international standards focusing on task base learning to promote communication skills was 83.13/78.48. The average score of the English formative test from 10 units was 83.13 percent and the average score of the posttest was 78.48 percent. Consequently, the efficiency score is higher than the expected criterion 75/75.

3. The Asia Airport Donmuang Hotel Staffs ability in English for hotel toward international standards focusing on task base learning to promote communication skills as significantly higher after training at the 0.05 level.

4. The Asia Airport Donmuang Hotel Staffs satisfaction with training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills were highly level.

Keywords: developing of training curriculum, English for hotel, task base learning, communication skills, Asia airport Donmuang hotel staffs

Background and Statement of the problem

The use of English in communication for operations in the tourism and hospitality industry is essential and essential. This is because English is the international language that tourists around the world use to communicate when traveling abroad for leisure or various purposes for tourists visiting Thailand. For tourists who come to travel in Thailand and use the hotel service and hotels to use English as the primary language of communication when using the service. Therefore, English is the language used by the workers in the tourism and hospitality industry. Must be knowledgeable and able to communicate effectively. Therefore, it is necessary to develop and prepare personnel in the service sector. Another important reason that Thailand has to develop the quality of personnel in the tourism and hospitality industry to be effective according to the requirements of ASEAN Core Competency Standards of Tourism Professionals–ACCSTP. At present, applying for a job in a hotel in some positions it may be necessary for applicants to pass the English Language Standards Examination first. Especially international standard hotels, the hotel staff working in ASEAN countries must have knowledge and competence in accordance with the ASEAN Core Competency Standards of Tourism Professionals–ACCSTP. These rules are part of the ASEAN Community agreement on the development of the skilled labor sector. (Tourism Authority of Thailand, 2020: 41–44). Required for the performance, professional skills and character of those studying in hospitality professions such as hotel service and because the hotel service requires English to communicate effectively for professional operations. From Research from Scotland (2016) found that the need for quality services, especially for hotel staffs who communicate effectively in English, it is the main factor affecting the need for education and training to produce quality labor resources for the hotel and tourism industry.

From the problem conditions and research in the development of English for Specific Purpose (ESP) in hotels. It can be concluded that there is a need for educational programs and training courses in English for communication in the hotel industry that match the actual operating conditions. As well as the needs of current hotel staffs and hospitality and tourism students entering future hotel careers. Therefore, the researcher wishes to develop an educational or training course that

meets the needs and problem conditions which is absolutely necessary to keep pace with the need in ability to communicate in training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills in the fast-growing hospitality and tourism industry.

Research Objectives

The objectives of this research are as follows:

1. To study the needs and requirements of training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills of Asia Airport Donmuang Hotel Staffs.
2. To develop and test the effectiveness of training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills according to the criteria 75/75
3. To compare the achievements in using training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills of hotel staffs before and after training
4. To study the satisfaction of the hotel staff trainees with training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills.

Concepts, Theories, and Related Research and Conceptual Framework

The Developing of Training Curriculum in English for Hotel Toward International Standards means the process of creating training curriculum in English for Hotel toward International Standards by analyzing document data in the context of English for Specific Purpose for Hotel Business. The process composed of ASEAN Common Competency Standards for Tourism Professionals (ACCSTP), The curriculum of English for Hotel and Tourism of domestic educational institutions and the commercially produced English for Hotel and Tourism books. And analysis of the needs of hotel stakeholders such as the hotel specialist Group, the specialists in teaching English for Hotel and Tourism group and Hotel Staffs group by using a task-based learning approach to curriculum design process.

Task-based Instruction (Willis and Willis, 2013: 11–16) means the teaching style emphasizes that students engage in communicative activities similar to actual situations in daily life with an emphasis on meaning to achieve communication objectives more than knowledge of grammatical or structural language.

Conceptual Framework

From the study of related documents and related research, therefore it is summarized as a research conceptual framework as shown in figure 1

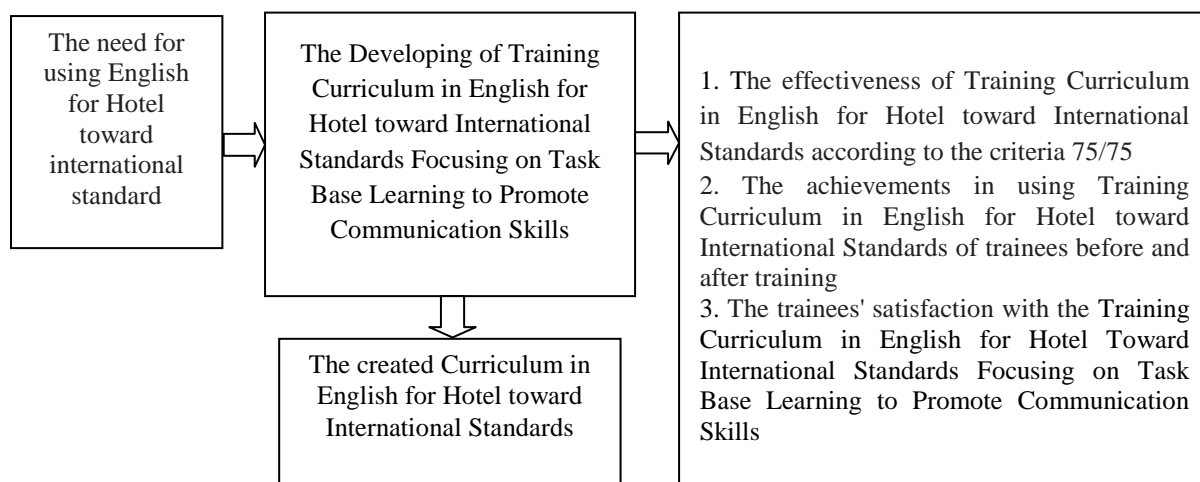


Figure 1 shows the relationship between the variables in the research

Research Methodology

Population and samples

Sample group in this research was 15 staffs of Asia Airport Donmuang Hotel by using purposive sampling classified as hotel staffs in the front desk of 3 people, food and beverage service department 8 people, housekeeping department 2 people, and porter department 2 people.

Research Tool

1. The tools used to collect the necessary information from the study of documents are: an analysis table of the content of English for hotel toward international standards focusing on task base learning analyzed from the ASEAN Core Competency Standards of Tourism Professionals (ACCSTP), The curriculum of English for Hotel from 5 universities namely 1.) Rajamangala University of Technology Srivijaya University, 2.) Suan Dusit University, 3.) University of Thai Chamber of Commerce, 4.) Mahamakut Buddhist University Lanna Campus and 5.) Rajapruk University and Commercial English for Tourism and Hospitality Teaching Books 10 books namely 1.) May I help You? English in Tourism, 2.) Be My Guest, 3.) High Season, 4.) First Class, 5.) Welcome! 6.) Ready to order, 7.) English for international tourism 8.) English language Instructional Document for hotel staff Units 1-7 and Units 8-15 9.) Tourism 1-2-3 and 10.) Highly Recommended 1-2. As for related parties, use the tools to gather the necessary needs as follows: A group of hotel specialists and a group of specialists in teaching English for hotels used a structured interview. And a group of hotel employees using a questionnaire created according to the framework of the content analysis of the document. Based on the Index of item objective congruence (IOC) analysis of the content analysis table. The interview form and the questionnaire were equal to 1.

2. The Developing of Training Curriculum in English for Hotel Toward International Standards Focusing on Task Base Learning developed from analyzing and synthesizing the data in item 1 to create a content schedule (Unit Specification), divided into 10 lessons, 3 hours per lesson, total training time 30 hours, using an online teaching style and using the teaching document format according to the task-based teaching principle. There is a hierarchical nature of activities that focus on

applying according to the workload in the hotel. The actual documents used in the hotel operation are used for teaching and activities. Audiovisual materials of native speakers are used in hotel interaction situations. There is an exercise at the end of the lesson to assess the knowledge and understanding after each lesson and activity and there are role-playing activities at the end of the chapter. An efficiency factor of 83.13/78.48 was obtained with acceptable performance above 75/75 criteria, by 3 experts reviewing the quality of the instrument.

3. The hotel communication proficiency test was developed based on the synthesis of data and summarizing the main points. For the development of pre-study and post-study tests by developing a test content schedule (Test Specification)

4. Asia Airport Donmuang Hotel Staffs satisfaction questionnaire with training curriculum in English for hotel toward international standards focusing on task base learning developed. The questionnaire was divided into 6 areas, namely 1. Content, 2. Language use, 3. Learning and Teaching Process, 4. Evaluation and 5. Speaker. The questionnaire is open to hotel staffs for comment and suggestions on the training course by evaluating satisfaction by using the rating scale. According to the Likert method, there are 5 satisfaction levels: most satisfied, highly satisfied, moderately satisfied, little satisfied, and least satisfied or dissatisfied. The efficiency of the concordance index analysis was 0.97 and the confidence coefficient of alpha (Cronbach Alpha) of the whole questionnaire was 0.87.

5. Asia Airport Donmuang Hotel Staff satisfaction questionnaire with training curriculum in English for hotel toward international standards focusing on task base learning developed the questionnaire was divided into 6 areas, namely 1. Content, 2. Language use, 3. Learning and Teaching Process, 4. Evaluation and 5. Speaker. The questionnaire is open to hotel staffs for comment and suggestions on the training course by evaluating satisfaction by using the rating scale. According to the Likert method, there are 5 satisfaction levels: most satisfied, highly satisfied, moderately satisfied, little satisfied, and least satisfied or dissatisfied. The efficiency of the concordance index analysis was 0.97 and the confidence coefficient of alpha (Cronbach Alpha) of the whole questionnaire was 0.87.

Data Collection

In this research study, the process and methods of conducting research have been established in accordance with the principles studied and the procedures are as follows:

Phase 1 Need Analysis The researcher conducted a study of data papers from three sources, namely, the source of 1.) ASEAN Core Competency Standards of Tourism Professionals (ACCSTP) 2.) Commercial English for Tourism and Hospitality Teaching Books and group of hotel specialists and a group of specialists in teaching English for hotels and group of Hotel staffs. The objective was to obtain information on the development of courses that can be applied in the real context of hotel business management in Thailand.

Phase 2 Curriculum Development The development of training courses was based on the Task-based learning Curriculum, Communicative-based Curriculum model using the Grave-based curriculum development model (2018) according to the following steps: 1) Assessment of necessities 2) Determination of learning goals and objectives 3) Development of curriculum structure and content 4) Determination of assessment methods 5) Teaching and learning activities by using task-based instruction model according to Willis and Willis (2013)

Phase 3 Curriculum Implementation and Evaluation Proceed with the following steps: 1) Preparation and arrangement of support systems by requesting permission to conduct research studies and to prepare computer program technology systems to be used to connect to the sample group in organizing online training and related educational equipment and the preparation of the unit that has the lesson plan 2) pre-learning testing with evaluation of all 4 skills and 3) training course implementation

Phase 4 Curriculum Evaluation Data were collected to evaluate the satisfaction of the sample participants in the training course. By using the feedback evaluation form that has already been developed and finding its effectiveness to evaluate the level of satisfaction on the course in various aspects in order to use the information obtained to improve the course version that will be used in the future.

Research Result

From research the developing of training curriculum in English for Hotel toward International standards focusing on task base learning in this time, the results can be summarized as follows:

1. The need for using English for hotel toward international standards focusing on task base learning of hotel staff in various aspects as follows:

1.1 The content of the hotel workload aspects, It was found that hotel staffs have a need for English for hotel toward to international standards. In regards to describing hotel information, rooms and facilities, contents of the services provided in the hotel services of the various departments include: room reservation, department reception and registration, telephone answering department, food and beverage service department, housekeeping department, content about food and beverages served in the hotel, content related to tourism and travel activities and content about problems and incidents in the hotel.

1.2 Functions and use of language aspects, It was found that hotel staffs have a need for English for hotel toward international standards with regard to language requirements for answering questions and providing information about the hotel and its facilities, reception of room reservations and registration of telephone conversations, asking questions, asking for information, asking for permission, giving thanks and apologies. asking for help and offering assistance, suggestions and comments, giving directions and explaining tourist information, explaining job description, explaining the procedure for using the tool and operating it, recounting the incident and responding to reprimands or scolding

1.3 Task base learning activities aspects, It was found that hotel staffs have a need for English for hotel toward international standards with regard to the need for teaching and learning activities, the actual situation in the hotel should be emphasized. Teaching activities should focus on the task base of Hotel burden. Teaching activities should be role-playing similar to the real-life situations that occur in hotel operations. Teaching activities should focus on pairs or groups. Teaching activities should allow learners to practice listening, speaking, reading and writing skills.

1.4 Documents and teaching materials aspects, It found that hotel staffs have a need for training with a variety of teaching materials such as print media, audio tapes animations, etc. documents and teaching materials should be used in real documents in the hotel function, documents and teaching materials should be

interesting, documents and teaching materials should be clear, documents and teaching materials should be suitable for teaching use.

1.5 Evaluation aspects, it was found that the hotel staffs needs to evaluate the training as follows: Evaluation should evaluate all skills including listening, speaking, reading and writing. Evaluation should include a variety of exercises, quizzes, role play. Evaluation should evaluate communication that is similar to a real situation. Evaluation should be based on what is taught. The evaluation should be consistent with the English for Hotel toward international Standard according to the Criteria Standard ASEAN Core Competency Standards of Tourism Professionals (ACCSTP)

2. Documents and materials for teaching English for hotel toward international standards focusing on task base learning to promote communication skills, it had an efficiency value of 81.13/78.48, which the performance exceeds the expected criterion of 75/75. Show that documents and materials for teaching English for hotels toward international standards focusing on task base learning the efficiency is at a very good level and above the specified threshold.

3. The ability to use English for communication in the hotel work of the sample size 15 people. There was a difference in the ability to use English for communication in the hotel work. Post-training potency was statistically significantly higher than before Pre-training at .05.

4. The sample group had a high level of satisfaction toward English for hotel toward international standards focusing on task base learning to promote communication skills with a mean (\bar{x}) of 4.37 and a standard deviation (S.D.) of 0.53, which can be summarized as follows:

4.1 Content aspect, Overall the samples had content satisfaction at a high level (\bar{x} =4.43, SD=0.68). The item with the highest mean was the training course match the actual needs (\bar{x} =4.60, SD=0.56) and the lowest mean was that the training course was appropriate as a whole (\bar{x} =4.13, SD=0.72).

4.2 Language use aspect, Overall the samples had a high level of language satisfaction (\bar{x} =4.48, SD=0.53). The item with the highest mean is food and beverage service (\bar{x} =4.73, SD=0.20) and the lowest mean was e-mail writing (\bar{x} =4.13, SD=0.70).

4.3 Teaching and learning process aspect, Overall the samples had the highest level of satisfaction with the teaching and learning process (\bar{x} =4.53, SD=0.38). The items with the highest mean were task-based teaching activities focusing on pairs or groups (\bar{x} =4.63, SD=0.57) and the lowest mean was that the task-based teaching activities were appropriate in the whole (\bar{x} =4.36, SD=0.25).

4.4 Evaluation aspect, Overall the samples had a high level of satisfaction with the evaluation (\bar{x} =4.08, SD=0.64). The highest mean was evaluated suitability as a whole (\bar{x} =4.15, SD=0.46) and the lowest mean was evaluated suitability for all skills (\bar{x} =4.15, SD=0.57).

4.5 Documents and teaching materials aspect, Overall the samples had a high level of satisfaction with the teaching materials (\bar{x} =4.34, SD=0.44). The item with the highest mean was the variety of teaching materials (\bar{x} =4.57, S.D. =0.63) and the lowest mean was that the application of the actual media was appropriate (\bar{x} =4.24, SD=0.52).

4.6 Speaker aspect, Overall the sample group had a high level of satisfaction with the speaker (\bar{x} =4.40, SD=0.48). The item with the highest mean was

that the guest speaker had proficiency in English for Hotel toward international Standard focusing on task base learning ($\bar{x}=4.50$, $SD=0.21$) and the lowest mean is that the speakers have the skills to use technology in teaching ($\bar{x}=4.27$, $SD=0.37$)

Results and Discussion

The results of the data analysis of research the Developing of Training Curriculum in English for Hotel toward International Standards Focusing on Task Base Learning to Promote Communication Skills can be discussed as follows:

1. Documents and materials for teaching English for hotels toward International Standards the efficiency value was 83.13/78.48, which was higher than the specified criteria of 75/75, indicating that the documents and materials for teaching English for hotels with acceptable efficiency, with a level of “above the criteria”, with the following discussions: The efficiency of the end-of-chapter test was 83.13, which is higher than doing the test after studying. The sample group of hotel staff was able to do 78.48. It was observed that the sample group of hotel staffs would do the test at the end of the chapter immediately after studying that hotel staff are just learning and measurements are chapter-specific. Unlike post-test, the content is summarized from each chapter and then used to create a post-test based on the content structure which the hotel staffs may not be good at each topic. Therefore, the efficiency of the end-of-chapter test was higher than the post-class test. This means the hotel staffs were better at completing exercises at the end of the lessons than taking exams. on the other hand, the creation of a post-study test by selecting the exam contents from all chapters together which makes hotel staffs to think more. In addition, the nervousness of taking the test after class resulted in lower scores than taking the final test. The main reason found was that hotel staffs did not take the written test in the Pre-exam due to lack of knowledge in writing as required or insufficient knowledge causing no points in this section. The same is true for the listening test, the hotel staffs can choose the correct answer very little so the scores before studying less. Unlike the post-study test where hotel staffs can do more written exams and listen more accurately and got more scores. This made the difference in the scores before and after the study was clearly different.

2. The ability to use English for hotels toward International Standards of the sample size 15 hotel staffs had differences in their ability. The ability after training was higher than before training at statistical significance of .05. This is due to the following reasons.

2.1 The curriculum components and content structure are consistent with the needs of the trainees which were hotel staffs so they intend to learn and practice fully in order to apply the knowledge and communication skills that have been gained in training to use in the real work.

2.2 The teaching and learning activities that focus on group activities and practice similar to real situations especially hotel- English for Specific Purpose (ESP) training that focuses on role-playing and real-life situations. This is consistent with the study by Surewan Chatanunthavej (2015), which indicated that group activities would help learners to develop their communication abilities and doing role-playing activities that are similar to real-life situations and encourage students to be more active in learning.

2.3 Documents and teaching materials help learners learn better because the researcher has used real documents by applying it to the lessons, audio media and moving images which encourages students to learn better. This is consistent with a

study by Balta (2017), which indicates that the use of technology teaching materials is appropriate for learners in the modern age where acquiring computer information and information is part of their daily lives. Therefore, the researcher brought the animated media from the online computer that the learners are familiar with in the form but have never used in learning before. It creates curiosity and gives learners the opportunity to continue to study on their own.

3. The sample group had the highest level of satisfaction with the training curriculum in English for hotel toward international standards focusing on task base learning to promote communication skills. The mean (\bar{x}) is 4.37 and the standard deviation (S.D.) is 0.53. The results can be discussed as follows.

3.1 Content aspect, Overall the samples had content satisfaction at a high level (\bar{x} =4.43, SD=0.68), The item with the highest mean is the training course corresponds to the actual needs (\bar{x} =4.60, SD=0.56) because the sample were the hotel staffs. There were need for hotel content and the use of language for actual practice. Therefore, hotel staffs have high satisfaction on the need for the training to apply using in a real hotel situation.

3.2 Language use aspect, Overall the samples had a high level of language satisfaction (\bar{x} =4.48, SD=0.53), with the highest mean being serving food and beverages (\bar{x} =4.47, SD=0.20) because most of the hotel staffs in food service is the main. Therefore, there is a need in this area and the use of food menus from hotels make employees familiar with the combined knowledge of hotels and practices was integrated, and the lowest mean was e-mail writing (\bar{x} =4.13, SD=0.70). This is because most hotel staffs do not have writing experience and may still consider it unnecessary. But the researcher has studied information about the necessity of the ASEAN standard curriculum. Knowledge and skill in writing emails is one of the standard requirements. And it's consistent with Balta (2017) research in terms of improving writing skills. Email for hotel communication both in contact with customers and colleagues together.

3.3 The teaching and learning process aspect, Overall, the sample group had the highest level of satisfaction with the teaching and learning process (\bar{x} =4.53, SD=0.38). The item with the highest mean was task-based teaching activities focusing on pairing or group work (\bar{x} =4.63, SD=0.57). Group or pair conversations the cooperative learning activities will promote and develop learners' learning as well according to Nunan's (2015) concept.

3.4 Evaluation aspect, Overall the samples were satisfied with the evaluation at a high level (\bar{x} =4.08, SD=0.64), with the highest mean being the appropriateness of the overall evaluation (\bar{x} =4.15, SD=0.46). This is because all skills were evaluated—listening, speaking, reading and writing—and the content and language components are balanced. Direct speech is evaluated through role play. The Hotel Staffs presented to their classmates so they were more familiar with and confident in the test.

3.5 Documents and teaching materials aspect, Overall the samples had a high level of satisfaction with the documents and teaching materials (\bar{x} =4.34, SD=0.44). The item with the highest mean was that the teaching material were diverse which was included publications, audio media, and animation media. That stimulates interest and helps promote learning as well.

3.6 Speakers aspect, Overall the samples had a high level of satisfaction with the speakers (\bar{x} =4.40, SD=0.48), with the highest mean of the speakers having proficiency in English for Hotel toward International Standard (\bar{x} =4.50, SD=0.21).

This is to support the opinion of hotel specialist and English for hotel teachers that must have a good knowledge of the Hotel industry.

Recommendation

Recommendation for Implementation

1. Organizing training in a real environment will help learners become more familiar with and learn more. But this training is an online as a result, the trainees were unable to fully play their roles so trainees are unable to practice English skill to its full potential and it might not be as fun as it should be.

2. It can apply the curriculum to other English language training in the other service business or in other fields that related.

Recommendation for further research

In the next study should develop a training curriculum in English for Hotel with an increased level of language difficulty, as well as a task -based teaching style with other fields such as aviation business, tourism business etc.

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The Relationship between Employee Motivation and Employee Performance of CMC Property Company

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Abstract

The purposes of this research were 1) to study the level of employee motivation of CMC Property Company, 2) to study the level of employee performance of CMC Property Company, and 3) to study the relationship between employee motivation and employee performance of CMC Property Company. A questionnaire was used to collect data from 125 employees. The statistics used to analyze the data were frequency, percentage, mean, standard deviation, and Pearson correlation.

The results showed that the level of employee motivation of the company both in the overview and all aspects were at the strongly agree level. The Hygiene and Motivation factors were at the same level of average but the standard deviation of Hygiene factors was lower than the motivation factors. The level of employee performance both in the overview and all aspects were at the strongly agree level. The highest aspect was the process performance, followed by the individual performance, and the organization performance, respectively.

The employee motivation in the overview and the both aspects of hygiene and motivation factors had a very strong positive correlation with the employee performance. The hygiene factors with the aspect of company policy and the working condition had a very strong positive correlation with the employee performance, the supervisor quality had a strong positive correlation with the employee performance, and the interpersonal relationships and the base wage and salary had a moderate positive correlation with the employee performance. The motivation factors with the aspect of the recognition, the work itself, and the personal growth had a very strong positive correlation with the employee performance, the achievement had a strong positive correlation with the employee performance, and the responsibility had a weak positive correlation with the employee performance with statistically significant at .01 level.

Keywords: motivation, employee performance, property company

Background and Statement of the problem

With the rapid development of the Chinese economy and the increasing progress of science and technology, especially with the arrival of the era of global economic integration, the competition between enterprises and commerce under the market economic system is becoming more intense in the 21st century. In fact, it is a difficult problem for the company to use the staff as a kind of resource utilization and development, and to stimulate the enthusiasm and initiative of the staff to work, mainly to enable them to better accomplish the task at work.

The CEO needs to know how to better develop the employees' cooperation and motivation, and direct their efforts to achieve the goals and objectives of the organization. CMC Property Company is a property owner entrusted by the property management entrustment contract, property construction equipment, facilities, greening, sanitation, public security, environmental features, and other projects to repair, CMC Property Company has made outstanding contributions to the property management industry in HeChuan area of Chongqing since its establishment 11 years ago. Staff have always adhered to the concept of serving the owners wholeheartedly and made continuous efforts to their work. Facing the fierce market competition, they have also found many drawbacks, CMC Property Company employee performance has not improved, and no targeted motivations were developed. The other reason is the problem of staff working efficiency. There are some researches e.g., Faraji (2013) and Ahmed et al. (2021) supported that motivation on employees related to their performance. Without a scientific incentive scheme, the motivation of employees is obviously reduced, which hinders the development of team performance. So, employees need to improve their quality, to stimulate the good competition among the employees in the company, to improve the efficiency of their work and have goals of the company, and to achieve the goals and make the company become longer development.

In the course of the development of the CMC Property Company, employee motivation and good performance will be accompanied by the continuous realization of enterprise strategic planning goals. This study takes CMC Property Company as an example, to enhance the efficiency and enthusiasm of employees, to improve employee performance in this way so that the rapid development of the company.

Objectives of the research

1. To study the level of employee motivation of CMC Property Company.
2. To study the level of employee performance of CMC Property Company.
3. To study the relationship between employee motivation and employee performance of CMC Property Company.

Conceptual Framework

1. The independent variables of the research were the employee's motivation theory of Fredrick Herzberg (2003) called the two-factor theory. These two factors are independent of each other and affect people's work behavior in different ways.

1.1 Hygiene factors, including company policy, working conditions, base wage and salary, supervisor quality, interpersonal relationships. These factors relate to the negative factors of work, and also to the working environment. If hygiene factors are poor, work is dissatisfying. However, good hygiene factors simply remove the dissatisfaction, they don't in themselves cause people to become highly satisfied and motivated in their work.

1.2 Motivation factors, including work itself, achievement, recognition, responsibility, and personal growth. These factors relate to the positive feeling about work and content of work itself. Herzberg believed that when the motivator is absent, workers are neutral toward work, but when motivators are present, workers who are highly motivated are satisfied. Thus, hygiene factors and motivators represent two distinct factors that influence motivation. Hygiene factors work only in the area of dissatisfied.

Herzberg divided his employees' work attitude into 4 categories: satisfaction, dissatisfaction, no satisfaction, no dissatisfaction. He thinks the traditional view of satisfaction and dissatisfaction is incorrect, the opposite of satisfaction should be no satisfaction, the opposite of the dissatisfaction should be no dissatisfaction. The factors that lead to job satisfaction and dissatisfaction are independent. Therefore, in the management, we should correctly identify and distinguish these two factors, provide employees with appropriate hygiene factors to prevent job dissatisfaction, at the same time, Motivation factors can be used to motivate employees.

Motivation factors make people satisfied without satisfaction, and hygiene factors change from dissatisfaction to no dissatisfaction. This double continuous relationship means that one can be satisfied and dissatisfied at the same time.

Hertzberg further believes that satisfaction and dissatisfaction are differences in quality, not quantity. Hygiene factors such as working conditions and salary incentives can't affect employees' job satisfaction, but they can affect employees' dissatisfaction with their work. If the dissatisfactory factors in the work are eliminated, the result of the work may not be satisfactory.

In a few words, the implication of the two-factor theory for managers is clear. Providing hygiene factors will eliminate employee dissatisfaction but will not motivate workers to high achievement goals. And recognition, challenge, and opportunities for personal growth are powerful motivators and will promote high satisfaction and performance. The manager's role is to remove dissatisfaction, to provide hygiene factors sufficient to meet higher-level needs and people employees toward greater achievement and satisfaction.

2. The dependent variables of the research were the employee performance theory of Swanson (1995). Performance can be divided into individual performance, team performance, and organizational performance.

2.1 Organization, performance is the accomplishment of a person in terms of quantity, quality, and efficiency. For employees, performance is the assessor's evaluation of their work status. The realization of organizational performance should be based on the realization of individual performance, but the realization of an employee's individual performance does not necessarily guarantee that the organization has performance. I think Organized and planned improvement of individual performance can achieve organizational performance.

2.2 Process performance can be divided into process outcome performance and process behavior performance. Process outcome performance can generally be measured by various key outcome indicators related to the process. We can regard process operation as process behavior, and process operation is actually controlled by a human, so process behavior is the concentrated reflection of human behavior. Behavior performance refers to the status of process operation, and behind it is the overall working status of all personnel in the process. Therefore, "process performance" includes the behavior performance and result performance of the process. Develops team and individual potential, and makes the organization succeed continuously. It is a strategic integrated management method. Through performance management, it can help organizations to achieve the sustainable development of their performance and promote the formation of a performance-oriented organizational culture.

2.3 Individual performance is the basic factor to achieve organizational performance. Individual performance management is to achieve organizational performance in a broad sense. The research on individual performance is the basic

work of performance research. It can provide a solid and scientific basis for mobilizing individual enthusiasm more fully. In contemporary scientific research activities, the most important feature is that the success of "socialized collective collaboration" and "socialized collective collaboration" mainly depends on the organization and coordination, that is, the management of scientific research organizations (Swanson, 1999) is a kind of management thought that improves performance.

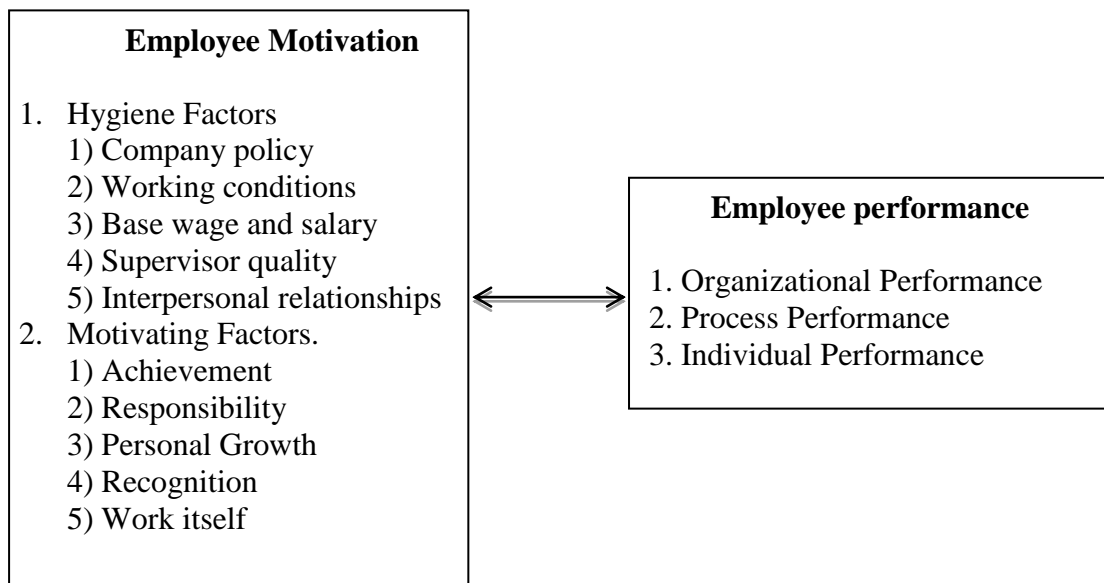


Figure 1 Conceptual framework

Research Methodology

Population Sample

The target population in this research was the employees of the CMC Property Company. The number of employees was 180 in December 2021.

Sample size

The researcher used Yamane (1967) formular to calculate the sample size and the would be 80 samples.

$$n = \frac{N}{1 + Ne^2} = \frac{180}{1 + 180(0.05)^2} = 125$$

Where, n = the sample size
 N = the size of population
 e = the error of 5 percentage points.

Data Collection

The author collected data from the employees during working days in March 2022. The questionnaire was sent to target samples online using a quota sampling method from each department as shown in the following table, then using a simple random sampling method.

Department	Employees	Sample size
1. Property management department	27	19
2. Engineering maintenance department	41	28
3. Cleaning department	36	25
4. Green maintenance department	32	22
5. Order maintenance department	44	31
Total	180	125

Research Instrument

This research used a questionnaire to collect the data from the employees. The questionnaire designed as three parts. The first part was demographic of employees. The questions were design to be closed-ended with choice answers. The second part was the level of employee motivation in the company. The third part was the level of employees' performance. Both employees' motivation and performance are designed as 5-scale Likert's scale (1932 referred in Warmbrod, 2014) 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree. All the questions of questionnaire would be fixed after reliability validity test by professionals. This process made sure all questions were effective and reliable.

Assessment of Research Tools

A questionnaire was used as a data collection tool in this research. The language of questionnaire was Chinese. The questionnaire's items were as follow:

1) Employees' Background

This part was the basic information about the employees who responded to the questionnaire. The information was including the gender, age, education background, experience of working in the company, salary, and departments of company.

2) Employee Motivation

The questionnaire was used to ask the level of motivation in the company. All questions were in close-ended form. They were divided into two parts included (1) Hygiene Factors and (2) Motivation factors.

3) Employee Performance

The questionnaire was used to ask the level of knowledge management in the company. All questions were in close-ended form. The whole number of items of employee performance were divided into three parts included (1) Organizational Performance, (2) Process Performance, and (3) Individual Performance.

Validity and Reliability

1) Validity

The questionnaire was designed follow the literature review and has been revised depends on feedback of experts, researcher revised the instrument. The Item-Objective Congruence (IOC) was used to evaluate the items of the questionnaire based on the score range from Congruent=+ 1, Questionable=0, and Incongruent=-1. The items that had scores lower than 0.5 were revised. On the other hand, the items that had scores higher than or equal to 0.5 were reserved. In this process, three experts checked the questionnaire. The IOC score is 1.00, more than 0.5. The score was accepted to issue questionnaire.

2) The reliability

The reliability of the questionnaire was determined by using to test for non-response bias, the mean of all variables obtained from early and late respondents was

calculated. In order to evaluate the reliability, an initial sample of 30 questions was trial. The reliability value was calculated by using Cronbach's alpha to ensure whether there was internal consistency within the items. George and Mallery (2003) illustrated the value of Coefficient Cronbach's Alpha as the following:

- ≥ 0.9=Excellent,
- ≥ 0.8=Good,
- ≥ 0.7=Acceptable,
- ≥ 0.6=Questionable,
- ≥ 0.5=Poor,
- ≤ 0.5=Unacceptable.

Therefore, for the research questionnaire to be reliable, its value of Coefficient Cronbach's Alpha of the whole questionnaire was .97, the employee motivation was .95, and the employee performance was .90. Then the questionnaire was good to deploy.

Data Analysis

Descriptive statistical analysis was used to describe the level of employee motivation and employee performance. These data were described by frequency, percentage, mean and standard deviation. Using the 5 scale Likert's scale (1932 referred in Warmbrod, 2014).

- 1=Strongly disagree,
- 2=Disagree,
- 3=Neutral,
- 4=Agree,
- 5=Strongly Agree.

For the interpret the average of mean scale were as followed:

- 4.50-5.00=Strongly Agree,
- 3.50-4.49=Agree,
- 2.50-3.49=Neutral,
- 1.50-2.49=Disagree,
- 1.00-1.49=Strongly Disagree

The relationship between employee motivation and performance was using Pearson correlation standard. Level of the correlation (Benesty et al., 2009) was identified as

- .00 - .19=Very Weak,
- .20 - .39=Weak,
- .40 - .59=Moderate,
- .60 - .79=Strong,
- .80 - 1.00=Very Strong.

Research Results

The result show that most respondents were male (84 people, 67.20%), Age between 36-45 years old (42 people, 33.60%), mostly had bachelor degree (53, 42.4%), mostly have been working in this company 4-6 years (50 people, 40.00%), salary per month between 2,000-5,000 Yuan, and working in the green maintenance department (29 people, 23.20%).

Table 1 Mean and Std. Deviation of the Employee motivation

Employee motivation	Mean	Std. Deviation	Interpretation	Rank
1. Hygiene Factors	4.59	0.37	Strongly Agree	
1) Company policy	4.57	0.53	Strongly Agree	4
2) Working conditions	4.57	0.53	Strongly Agree	4
3) Base wage and salary	4.63	0.45	Strongly Agree	1
4) Supervisor quality	4.58	0.45	Strongly Agree	3
5) Interpersonal relationships	4.60	0.42	Strongly Agree	2
2. Motivation Factors	4.59	0.45	Strongly Agree	
1) Achievement	4.60	0.47	Strongly Agree	3
2) Responsibility	4.62	0.40	Strongly Agree	1
3) Personal Growth	4.61	0.51	Strongly Agree	2
4) Recognition	4.57	0.61	Strongly Agree	4
5) Work itself	4.57	0.61	Strongly Agree	4
Total	4.59	0.45	Strongly Agree	

The results showed that the level of employee motivation of the company both in the overview and all aspects were at the strongly agree level. The Hygiene and Motivation factors were at the same level of average but the standard deviation of Hygiene factors was lower than the motivation factors.

For the hygiene factors, the highest aspect was the base wage and salary ($\bar{x}=4.63$, $SD=0.45$), followed by the interpersonal relationships ($\bar{x}=4.60$, $SD=0.42$), and the lowest were the company policy and the working conditions ($\bar{x}=4.57$, $SD=0.53$), respectively.

For the motivation factors, the highest aspect was the responsibility ($\bar{x}=4.62$, $SD=0.40$), followed by the personal growth ($\bar{x}=4.61$, $SD=0.51$), and the lowest were the recognition and the work itself ($\bar{x}=4.57$, $SD=0.61$), respectively.

Table 2 Mean and Std. Deviation of the Employee performance

Employee performance	Mean	Std. Deviation	Interpretation	Rank
1. Organization Performance	4.57	0.61	Strongly Agree	3
2. Process Performance	4.58	0.60	Strongly Agree	1
3. Individual Performance	4.57	0.60	Strongly Agree	2
Total	4.58	0.60	Strongly Agree	

From table 2 showed that the level of employee performance both in the overview and all aspects were at the strongly agree level. The highest aspect was the process performance (\bar{x} =4.58, SD=0.60), followed by the individual performance (\bar{x} =4.57, SD=0.60), and the organization performance (\bar{x} =4.57, SD=0.61), respectively.

Table 3 Correlation of the employee motivation and performance

		Organization Performance	Process Performance	Individual Performance	Performance Total
<i>Hygiene factors</i>	<i>r</i>	.872**	.866**	.860**	.869**
	<i>Sig.</i>	.000	.000	.000	.000
Company policy	<i>r</i>	.887**	.878**	.877**	.883**
	<i>Sig.</i>	.000	.000	.000	.000
Working conditions	<i>r</i>	.817**	.812**	.805**	.813**
	<i>Sig.</i>	.000	.000	.000	.000
Base wage and salary	<i>r</i>	.468**	.484**	.461**	.473**
	<i>Sig.</i>	.000	.000	.000	.000
Supervisor quality	<i>r</i>	.650**	.645**	.640**	.647**
	<i>Sig.</i>	.000	.000	.000	.000
Interpersonal relationships	<i>r</i>	.588**	.571**	.581**	.581**
	<i>Sig.</i>	.000	.000	.000	.000
<i>Motivation factors</i>	<i>r</i>	.942**	.944**	.944**	.947**
	<i>Sig.</i>	.000	.000	.000	.000
Achievement	<i>r</i>	.768**	.765**	.778**	.773**
	<i>Sig.</i>	.000	.000	.000	.000
Responsibility	<i>r</i>	.371**	.356**	.363**	.364**
	<i>Sig.</i>	.000	.000	.000	.000
Personal Growth	<i>r</i>	.789**	.808**	.795**	.800**
	<i>Sig.</i>	.000	.000	.000	.000
Recognition	<i>r</i>	.990**	.994**	.991**	.995**
	<i>Sig.</i>	.000	.000	.000	.000
Work itself	<i>r</i>	.983**	.983**	.982**	.986**
	<i>Sig.</i>	.000	.000	.000	.000

Table 3 Correlation of the employee motivation and performance (Cont.)

		Organization Performance	Process Performance	Individual Performance	Performance Total
Motivation Total	r	.943^{**}	.941^{**}	.938^{**}	.944^{**}
	Sig.	.000	.000	.000	.000

^{**}. Correlation is significant at the 0.01 level (2-tailed).

From table 3 showed that the employee motivation in the overview and the both aspects of hygiene and motivation factors had a very strong positive correlation with the employee performance with statistically significant at .01 level.

The hygiene factors with the aspect of company policy and the working condition had a very strong positive correlation with the employee performance, the supervisor quality had a strong positive correlation with the employee performance, and the interpersonal relationships and the base wage and salary had a moderate positive correlation with the employee performance with statistically significant at .01 level.

The motivation factors with the aspect of the recognition, the work itself, and the personal growth had a very strong positive correlation with the employee performance, the achievement had a strong positive correlation with the employee performance, and the responsibility had a weak positive correlation with the employee performance with statistically significant at .01 level.

For the organization performance, the hygiene motivation with the aspect of company policy and the working condition had a very strong positive correlation with the organization performance, the supervisor quality had a strong positive correlation with the organization performance, and the interpersonal relationships and the base wage and salary had a moderate positive correlation with the organization performance with statistically significant at .01 level.

The organization performance with the aspect of the recognition and the work itself had a very strong positive correlation with the organization performance, the personal growth and the achievement had a strong positive correlation with the organization performance, and the responsibility had a weak positive correlation with the organization performance with statistically significant at .01 level.

For the process performance, the hygiene motivation with the aspect of company policy and the working condition had a very strong positive correlation with the organization performance, the supervisor quality had a strong positive correlation with the organization performance, and the interpersonal relationships and the base wage and salary had a moderate positive correlation with the organization performance with statistically significant at .01 level.

The motivation factors with the aspect of the recognition, the work itself, and the personal growth had a very strong positive correlation with the process performance, the achievement had a strong positive correlation with the process performance, and the responsibility had a weak positive correlation with the process performance with statistically significant at .01 level.

For the individual performance, the hygiene motivation with the aspect of company policy and the working condition had a very strong positive correlation with the organization performance, the supervisor quality had a strong positive correlation with the organization performance, and the interpersonal relationships and the base wage and salary had a moderate positive correlation with the organization performance with statistically significant at .01 level.

The individual performance with the aspect of the recognition and the work itself had a very strong positive correlation with the individual performance, the personal growth and the achievement had a strong positive correlation with the individual performance, and the responsibility had a weak positive correlation with the individual performance with statistically significant at .01 level.

Summary of the Study

This research finds and explains how companies use hygiene and management factors. The empirical evidence presented in this paper suggests that the implementation of hygiene factors and performance will help firms to conduct better knowledge management. It is also based on the previous research in the field of knowledge management, and with the support of some experiences, such a connection method is proposed. Today, academics and businesses have recognized the meaning and scope of knowledge management. Therefore, one of the main conclusions of this study is to improve the overall capability of the company. Managers can use these findings to negotiate with stakeholders about the implementation of knowledge management projects. This research can contribute to practitioners as it provides new insights and findings for organizations that managers can turn into their own companies. Companies can now understand the positive impact of knowledge management and its impact on core competencies. Specifically, companies know that with a well-defined knowledge management program, they can increase competitiveness, achieve better financial performance, improve processes, and develop human resource capabilities. These benefits, in turn, facilitate the process of knowledge management.

Discussions

The results showed that the level of employee motivation of the company both in the overview and all aspects were at the strongly agree level. The Hygiene and Motivation factors were at the same level of average but the standard deviation of Hygiene factors was lower than the motivation factors.

For the hygiene factors, the highest aspect was the base wage and salary, followed by the interpersonal relationships, and the lowest were the company policy and the working conditions, respectively. This is partial consistent with a work of Faraji (2013). The study found out that motivation is the most important factor in employee performance and the major factor that affects the level of employee performance.

For the motivation factors, the highest aspect was the responsibility, followed by the personal growth, and the lowest were the recognition and the work itself. The result was not consistent with the work of Ahmed et al. (2021) in Bangladesh found that the most important motivating factor is 'job security', while 'opportunity for learning new things' is the least important factor for both the manufacturing and service employees.

The level of employee performance both in the overview and all aspects were at the strongly agree level. The highest aspect was the process performance, followed by the individual performance, and the organization performance, respectively. The employee motivation in the overview and the both aspects of hygiene and motivation factors had a very strong positive correlation with the employee performance. The hygiene factors had a very strong positive correlation with the employee performance. The finding is consistent with the work of Alase et al. (2021) which is revealed that

both monetary (competitive salary, salary raise, allowances, bonuses, and percentage profit sharing) and non-monetary (job security, job training, career advancement opportunities, flexible working hours, and retirement benefits) motivational incentives have a significant positive correlation with employee job performance. But inconsistent with a work of Aarabi et al. (2013) found that training and promotion contributed to job performance compared to extrinsic motivational factors such as payment, job security, and friendly environment.

The motivation factors with the aspect of the recognition, the work itself, and the personal growth had a very strong positive correlation with the employee performance. The finding is consistent with the work of Alase et al. (2021). To determine whether there is existing relationship between motivation (both monetary and non-monetary) and employee performance.

Recommendations

From the results shows that to increase the employee performance, the company need to improve the motivation in both hygiene and motivation factors. Especially on the aspect of the company policy and the working conditions of the hygiene factors, and the recognition and the work itself of the motivation factors due to lower level of motivation than the other aspects.

To increase the organization performance, the company need to focus on the hygiene motivation with the aspect of company policy and the working condition, and the motivation factors with the recognition and the work itself had due to a very strong positive correlation with the organization performance. but the company still need to improve all aspect of motivation due to, the employee motivation in the overview had higher level of correlation with the organization performance.

To increase the process performance, the company need to improve the hygiene motivation with the aspect of company policy and the working condition due to a very strong positive correlation with the organization performance. The company also need to focus on the motivation factors with the aspect of the recognition, the work itself, and the personal growth due to a very strong positive correlation with the process performance.

To increase the individual performance, the company need to focus on the hygiene motivation with the aspect of company policy and the working condition due to a very strong positive correlation with the organization performance. And focusing on the individual performance with the aspect of the recognition and the work itself due to a very strong positive correlation with the individual performance.

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An Analysis of English Code-mixing in the Television Series Boys over Flowers

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Abstract

The current study aims to explore linguistic forms and to examine how meaning and features of English words are modified through the nativization process. It also investigates motivations for English mixing. Conversational dialogue from the Thai teenage T.V. series “Boys over Flowers” was transcribed for this analysis. According to three theoretical frameworks, the first was Ho's classification (2007) which had seven categories: 1. letters of alphabet, 2. lexical words, 3. proper nouns, 4. short forms, 5. phrases, 6. incomplete sentences, 7. single full sentences. The second was nativized features (Kannaovakun and Gunther, 2003) which had six categories: 1. hybridization, 2. truncation, 3. reduplication, 4. conversion, 5. semantic shift, 6. word order shift, and the third framework was motivations of code-mixing (Lee, 2012) which had seven categories: 1. euphemism, 2. specificity, 3. principle of economy, 4. quotation, 5. doubling, 6. interjection, and 7. English specific name.

The results reveal that the mostly found English items were at the lexical level (51.54%) following by letter of the alphabet (24.22%). Truncation or shortening English words were found to be the most (7.5%) following by hybridization (7.5%) of all nativized features while specification was the main motivation for code-mixing in the script (51.54%) following by principle of economy (29.95%). English mixing in the TV series Boys over Flowers demonstrates how characters, which represent Thai teenagers from similar social and educational backgrounds, embrace and adopt English code-mixing into their conversation.

Keywords: alternative media, artistic expression, code–mixing, code–switching

Introduction

Alternating between two languages in the same utterance is commonly found in a variety of today's communication and artistic expression. This mixing is not only found in everyday language use, it also occurs in domains such as advertising, film, fiction, poetry, and song (Kachru (2006). Linguists have investigated English mixing in songs and explored the extent of English insertion as well as the patterns and functions of English elements found in lyrics. The results of this prior research have indicated that English mixing with local language is prevalent in some countries across Asia such as India, Hong Kong, Korea, Japan, and Thailand. Western values have influenced popular culture in these countries contributing to English code-mixing and switching (Kachru, 2006; Chan, 2009; Lee, 2004; Moody, 2006; Likhithphongsathorn & Sappapan 2013)

Code-mixing and code-switching are interchangeable terms used by linguists to describe language mixing phenomenon. Ho (2007) explained that code-mixing is the change of one language to another within the same utterance or in the same oral/written text. It is a common phenomenon in societies where two or more languages are used. Muysken (2000) described code-mixing as lexical items and grammatical features from two languages appearing in one sentence. Bathia and Ritchi (2008) considered code-mixing and

code-switching as high-level mixing or complex mixing. They also explained the differences between the two terms; the term code-mixing refers to the intra-sentential mixing of linguistic items (morphemes, words, modifiers, phrases, clauses, and sentences from two or more different grammatical systems in the same sentence. On the other hand, code-switching is inter-sentential mixing or language switching at the sentence level.

Studies of English code-mixing in television series can reflect the status of language mixing in two dimensions: 1. the English mixing in real life conversation of a social group, and 2. the acceptance of English mixing in the media by the public. Authentic language attracts audiences to television programs because it represents their social identity. Over the last decade, research on English code-mixing in Thai television programs has focused mainly on change of meaning and forms of English items mixed through the nativization process.

This research analyses English code-mixing in the Thai television series *Boys over Flowers*. English mixing in the dialogue revealed forms of English insertions ranging from words to phrases and sentences because the characters were educated in English. Moreover, it was noticeable that the characters in the first story, *Boys over Flowers: Handsome Cowboy*, mixed English according to the social status, age, occupation and educational background of the interlocutors. Therefore, this study of English code-mixing aims to find the characteristics of English grammatical units and the motivations for language mixing in the first story, *Boys over Flowers: Handsome Cowboy*.

Objectives

The objectives of this study are to explore linguistic forms and to examine how meaning and features of English words are modified through the nativization process for English code-mixing in the Thai teenage T.V. series *Boys over Flowers*.

Literature Review

Code-mixing Classifications Language mixing commonly occurs in “outer circle” countries. These are countries where English is not the native language; however, it plays a significant role in higher education, government administration, and communication between specific cultural groups. Countries where English is the lingua franca and generally studied as a foreign language are often referenced as “expanding circle” countries. A great deal of research into English code-mixing has focused on describing characteristics and forms of English insertion in the dominant language. With the spread of English and more exposure to English mixing in media, English units that are mixed in local languages from these two groups can take various forms at the intrasentential level.

Ho (2007) classified types of grammatical English elements found in students’ verbal exchanges into the following seven categories: 1. Letters of the alphabet 2. Lexical words 3. Proper nouns 4. Short forms 5. Phrases 6. Incomplete sentences 7. Single full sentence

The Nativization of Code-mixing: Nativized features found in English code-mixing have been classified into the following six types: 1. Hybridization 2. Hybridization 3. Reduplication 4. Conversion 5. Semantic shift 6. Word order shift.

Research Methodology

Samples of English code-mixing from the Thai T.V. series Boys over Flowers were collected for the analysis. However, some English words, which could be found in The Royal Institute Thai dictionary were not included as they were considered as loanwords. Thadpoothon (2009) defined loanwords as English words that had been borrowed and used as common words in Thai. Two hundred and twenty-seven examples of English code-mixing were transcribed from the dialogue of Handsome Cowboy, 1 of 12 main stories. Eight episodes were analyzed. Each episode ran for 75 minutes. The total run time for all the episodes was 600 minutes. The selected episode was shown from December 18, 2021 on Sunday from 8 pm to 9.15 pm on GMM channel 25, and 10 pm to 11.15 pm on Line T.V. It is also available on YouTube.

Theoretical frameworks

1) To analyze the data, a table was created to classify the English code-mixing elements. The data were tabulated, in columns, according to three theoretical frameworks, the first had seven categories: 1. letters of alphabet, 2. lexical words, 3. proper nouns, 4. short forms, 5. phrases, 6. incomplete sentences, 7. single full sentences, and nativized features (Ho, 2007). 2) The second had six categories: 1. hybridization, 2. truncation, 3. reduplication, 4. conversion, 5. semantic shift, 6. word order shift, and motivation (Kannaovakun and Gunther, 2003). 3) The third framework had seven categories: 1. euphemism, 2. specificity, 3. principle of economy, 4. quotation, 5. doubling, 6. interjection, and 7. English specific names (Lee 2012).

The data analysis procedure

Code-mixed items were added to the data table and counted manually. Then, the frequency of each classification was calculated as a percentage. The results of the analysis are discussed in the next chapter.

Result

In accordance with Ho's (2007) framework, English code-mixing items found in Boys over Flowers dialogue are reported with their frequency and percentage in table.

English items

English Items	Frequency	Percentage
Lexical words	117	51.54
Letter of the alphabet	55	24.22
Phrases	22	9.7
Proper nouns	17	7.5
Short forms	11	4.84
Single full sentences	5	2.2
Incomplete sentences	0	0

Table shows the frequency and percentage of seven English code-mixed items. However, only six types were found in the data. The majority of items were lexical words, which were found 117 times (51.54%), followed by letters of the alphabet 55 times (24.22%), phrases 22 times (9.7%), proper nouns 17 times (7.5%), and short forms 11 times (4.84%), respectively. The least found items were single full

sentences, which were found 5 times (2.2%). Incomplete sentences were not found in the data.

The second framework applied was a classification of six nativized features based on Kannaovakun and Gunther's (2003) study of English code-mixing in Thai media. Frequency and percentage of nativized features are shown in Table.

Nativized features

Nativized features	Frequency	Percentage
Truncation	17	7.5
Hybridization	15	6
Semantic shift	13	5.7
Reduplication	12	5.3
Conversion	6	3
Word order shift	3	1.5
None of the nativized features	161	71

Table shows nativized features categorized into 6 types: The majority of items were Truncations, which were found 17 times (7.5%), followed by hybridizations 15 times (6%), semantic shifts 13 times (5.7%), reduplications 12 times (5.3%), and conversions 6 times (3%), respectively. The least found items were word order shifts, which were found 3 times (1.5%).

Motivations for code-mixing

Types of motivation	Frequency	Percentage
Specificity	117	51.54
Principle of economy	67	29.95
English specific name	17	7.5
Interjection	11	6.17
Doubling	7	2.64
Euphemism	5	2.2
Quotation	0	0

Table shows seven motivational categories. The majority of items were in the category of specificity, which was found 117 times (51.54%), followed by principle of economy 67 times (29.95%), English specific names 17 times (7.5%), interjections 14 times (6.17%), and doubling 7 times (2.64%), respectively. The least found items were euphemisms, which were found 5 times (2.2%), quotations were not found in this data.

Discussion

Interestingly, this study also uncovered some new terms that are used by Thai teenagers. These terms mainly reflect major events, current social phenomenon, and advances in technology. For example, the term "selfie", which means a photograph that one has taken of oneself with a smartphone and shared via social media, does not have a Thai language equivalent. The best way to say it in Thai would be "to take a photo of oneself", which sounds awkward and does not imply the use of the camera or a smartphone. Li (2002) explained that particular English words or expressions are preferred as they are more specific. In the case of selfie, the English word is used to contextualize a new concept because the term is widely understood in Thailand. Other

interesting terms in this group are “check-in”, “share lo (location)”, “up IG”, “up clip”, and “drama”.

The dialogue in the T.V. series *Boys over Flowers* suggests that social roles, personal backgrounds, and relationships influenced the scriptwriter’s choice of dialogue. It is noteworthy that English code-mixing, in the episodes, mostly occurs during conversations between characters who share similar backgrounds such as social class, age, education and common interests. In particular, most of the dialogue, which features English-Thai mixing, is uttered by friends of the main characters who are from the same educational background. Code-mixing facilitates easier communication among group members as it allows them to express ideas and feelings without fear of misunderstanding and without the trouble of explanation when the concept is not easily replicated using Thai words (Ho, 2007). On the other hand, during conversations with interlocutors from different social classes, the characters employed code-mixing less frequently. Most of the English words identified appeared to be English loan words that have been used widely in Thailand for a long time because the working class and the older generation could understand the terms as well. This aspect of the data shows the relationship between language and identity.

Therefore, it can be said that interlocutors are motivated to mix English elements instead of using words from their language to communicate effectively when they are aware of the listener’s linguistic ability (Reyes, 2004), or to express group identity and differentiate themselves from another group (Hoffman, 1991). The language used in the T.V. series reflects Thai teenager’s real linguistic behavior. The characterizations represent the personality and behavior of real-life people to enable the younger generation, the main target group of the production, to relate to the characters and the plot.

The dialogue uttered in the T.V. series *Boys over Flowers* reflects the young generation’s real-life use of language in Thailand. The phenomenon of code-mixing in the series shows how English has become integrated into Thai discourse. In addition, the dialogue demonstrates how English and Thai language can be combined to express meanings, ideas, and feelings. Furthermore, mixing English in this type of media can make the use of English more acceptable to the younger generation in Thailand.

Recommendations

The future study could be expanded from the current research in the following aspects:

1. To find similarities and differences between the English items found in this research, future studies of code-mixing in Thai T.V. series could investigate other T.V. show genres, where the plot features characters with different ages, occupations, and incomes.
2. Moreover, the sociolinguistic aspects and cultural meaning of code-mixing identified in the series *Boys over Flowers* is worth further investigation.
3. Further analysis of English code-mixing, based on theoretical frameworks, in other types of media, should be investigated to gain a better understanding of English use in Thai media.

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The Application of Balanced Scorecard in the Administration of Accounting Firms in Bangkok Metropolitan

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Abstract

The objective of this research was to examine the relationship and the influence of the application of Balanced Scorecard (BSC) in the administration to solve the problems of accounting office operations in Bangkok. The research instrument was questionnaire used for data collection from the samples of 334 respondents selected by simple random sampling using the lottery method. The statistics used in this research was stepwise multiple regression analysis.

The results were as follows; the application of Balanced Scorecard in the administration in customers' perspective and financial management affected the problem-solving competence in the administration of accounting firms in the Bangkok which is statistically significant at the .05 level.

Keywords: the application of Balanced Scorecard, accounting offices, accountancy

Background and statement of the problem

In fast-changing global society, the quality of goods and services is very important and is widely accepted. Due to the survival of a business which is in a highly competitive economic situation depends on customer satisfaction. Therefore, the accounting firms try to use various strategies to achieve the best quality of the service. This is one of the factors to choose the service from the customers which is a juristic business which has a duty to do bookkeeping according to the Accounting Act B.E. 2543 (2000). (Department of Business Development, 2000). Due to accounting information and financial reports that the accounting firms prepared for the customers will affect economic decision making and strategic planning that can achieve success for the accounting firm's customers.

Currently, there are 2,030 accounting firms in Bangkok from 4,090 accounting firms throughout Thailand. (Department of Business Development, 2021). They are characterized as small and medium-sized businesses (SMBs) so the administration in the accounting office is absolutely necessary that the accounting firms have to try to promote and support to increase competitiveness of the service quality for the customers. Therefore, Balanced Scorecard or BSC is used in order to evaluate the overall achievement of an organization which is acceptable and is widely popular both

domestic and abroad. Due to Balanced Scorecard is used to evaluate the overall achievement of the entire organization because it is a strategic management tool that is used for converting strategies into actual operations in order to be in accordance with the strategic planning and organization's vision and mission. The goals set by Balanced Scorecard or BSC will measure the success of the operations. This can help to know the status and efficiency of each department within the organization and it also can help to adjust the errors correctly. Preceding, BSC has clearly helped to formulate a strategy to manage the organization. By looking at the results of the evaluation from the overall aspects to achieve balance in all aspects rather than looking only at the financial perspective as most businesses consider such as income, profit or dividend yield. (Kaplan, R. & Norton, D., 1996) Most of successful organizations are regularly evaluated and measured their performance to make their businesses truly sustainable.

At present, the Department of Business Development, The Ministry of Commerce tries to improve the standard of administration by providing the implementation of the Balanced Scorecard concept to improve the standard of accounting firms in Bangkok to certify the quality which is extremely important in the administration of accounting firms. Due to the accomplishment that the accounting firms deliver to the customers is the results of the knowledge, the competence, and the management of the bookkeepers to be able to use them in strategic planning and make economic decision to achieve business purposes.

With such a problem situation, the researchers were interested in studying about the evaluation of the Balanced Scorecard (BSC). The results were used as information to improve the administration of the accounting firms which could lead to the development and improvement of the quality of accounting firms to meet international standards to be able to compete internationally. It also could help to promote the operation of small and medium-sized businesses under the use of information of accounting firms which has a positive effect on the overall economy. Moreover, it could help the sustainable operations of the accounting firms in the future.

Objectives

1. To study the problems of the administration of accounting firms in Bangkok.
2. To study the concept of applying the Balanced Scorecard (BSC) in accounting firms in the administration in Bangkok.
3. To study the relationship of the concept of applying Balanced Scorecard (BSC) with problem-solving competence in the administration of accounting firms in the Bangkok.

Concept, theory, and related research

Balanced Scorecard Definition: Balanced Scorecard is a performance based metric which companies used for strategic management. It improves the internal functions and external results of the business.

To identify the downfall in the internal function and to improve the performance balance scorecard is used as a performance metrics. (Kaplan & Norton, 1996). It is very useful to provide feedback to the employees about their performance and outcomes. The crucial step of balance scorecard is data collection, the realistic information gathered is further interpreted by executives and managers in the company to provide a guideline for decision making in the future.

The 4 perspectives of Balance Scorecard are as follows:

1. The Financial Perspective (F)

The obvious objectives of any organization include profit and revenue. The financial perspective of balance scorecard deals with the financial performance and health of organization. The financial objective popularly includes- cost saving and improved work efficiency, more profit margins and addition in revenue sources.

2. The Customer Perspective (C)

The customer focused organization always work on needs and wants of customer. If an organization wants to achieve the set financial goal then it has to know what need to be delivered to the customer. From customer perspective the company can set objects such as- improvement in customer service and satisfaction, increase market share and hike in brand awareness.

3. The Internal Procedure Perspective (P)

Now as the financial objective is set and company is aware about the wants of customer, then comes the processes which need to put properly to reach the set financial and customer related goal. Here the organization has to set the internal operational objectives. The company has to decide the actions which must be executed in order to dive the performance. The internal process objective might cover- work process improvement, quality optimization and improvement in capacity utilization.

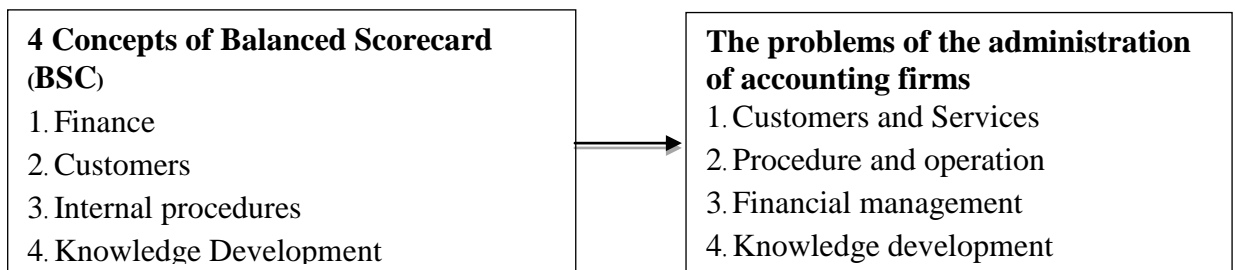
4. The Knowledge Development Perspective (K)

This perspective is related to intangible drivers of organizational performance. The spectrum of this perspective is very broad and thus segregated into parts such as human capital, information capital and organizational capital. The objectives of learning and growth perspective are- assessment of skills, talent and knowledge, information about safety system, infrastructure investment and data protection system, updates linked to staff engagement, employee alignment, knowledge management and teamwork.

The perspectives were represented as the abbreviated variables as follows:

1. The Financial Perspective = F
2. The Customer Perspective = C
3. The Internal Procedure Perspective = P
4. The Knowledge Development Perspective = K

Conceptual Framework



Research Methodology

This research is quantitative research. The methodology for conducting questionnaire of the staffs of 2,030 accounting firms in Bangkok (Department of Business Development, 2021) are the respondents.

Population and sample

The sample size was calculated by using Taro Yamane formula (Yamane, 1970) which consisted of 344 people selected by simple random sampling using the lottery method.

Research instruments

A tool used to elicit data for this research of 'The Application of Balanced Scorecard in the Administration of Accounting Firms in Bangkok Metropolitan' was questionnaire.

This research can be divided into three main areas:

- Part 1 General information of the respondents
- Part 2 Information about the problems in the administration of the accounting firms
- Part 3 Information about the application of the Balanced Scorecard management approach to solve the problems of accounting firms in Bangkok.

The researchers used questionnaire that was conducted to assess two parts of the research tools which were the content validity and reliability of the questionnaire. The content validity was examined by 3 experts and the questions have been revised according to the advice of the experts, with IOC values of 1.00-0.67. It was considered

that these questions were validity and could be used to elicit data.

In the second part, the researcher took the questionnaire that was examined the content validity to examine the reliability by collecting data in Samut Sakhon province about 30 sets. It found out that Cronbach Alpha values were 0.788 (Sombat Tailuekham, 2008) which were considered that they were on a good level. It meant that the questionnaire was reliable and could be used with the actual sample (Sirichai Kanchanawasi, 2012).

Data collection

The researchers collected data by distributing questionnaires in Bangkok areas by sending a registered letters of acceptance to the accounting firms in different areas of Bangkok, sending the questionnaire in electronic form (Google Forms) to the e-mail of the accounting firms, sending electronic form (Google Forms) to Facebook of Certified Accounting Practice, the quality assurance of accounting firms, group of accountants, and visiting the accounting firms in person.

Data analysis

The data were analyzed by using Statistical Package for Social Science. The statistics used to analyze data were as follows:

Descriptive statistics used to analyze the frequency, percentage, arithmetic, mean and standard deviation.

Inferential statistics used to analyze multiple regression equations to study the relationship of the application of the Balanced Scorecard to solve the problems of accounting firms in the Bangkok.

The interval scales were as follow:

Highest level	Average score	4.21- 5.00
High level	Average score	3.41 - 4.20
Medium level	Average score	2.61- 3.41
Low level	Average score	1.81- 2.60
Lowest level	Average score	1.00- 1.80

Research Results

Most respondents were female about 297 people (75.8%), aged between 25-35 years about 275 people (70.2%), the education level was in bachelor's degree about 308 people (78.6%), the positions in the accounting firms were about 79 owners (20.2%) and 129 supervisors (32.9%) and 189 employees (45.9%).

Table 1 Basic statistics of the problems of the administration of accounting firms in ‘customers and services’ aspect.

Customers and Services Aspect	\bar{x}	SD	Meaning
1. The customers often decide to use a service based on the lower cost factor so the competition is high.	4.29	0.840	Highest
2. The customers do not understand about the tax laws and want to pay for tax the least by neglecting the correctness.	4.20	0.811	High
3. The customers submit the documents late, incomplete, and inaccurate.	4.25	0.821	Highest
4. The customers pay for the services late.	4.17	0.820	High
5. There are problems in communicating with the customers.	4.21	0.856	Highest
Total	4.22	0.722	Highest

Table 2 Basic statistics of the problems of the administration of accounting firms in ‘procedures’ aspect.

Procedures Aspect	\bar{x}	SD	Meaning
1. The accounting firms received the documents late, so the financial statements had to be closed during the period near the end of the financial statement submission deadline.	4.21	0.811	Highest
2. The accounting firms are unable to deal with tax matters directly to the customers.	4.21	0.801	Highest
3. The accounting firms cannot record customers' documents systematically. Some documents are still lost or unsent.	4.22	0.853	Highest
Total	4.21	0.741	Highest

Table 3 Basic statistics of the problems of the administration of accounting firms in ‘financial management’ aspect.

Financial Management Aspect	\bar{x}	SD	Meaning
1. The accounting firms have some problems with cash flow management.	4.20	0.818	High
2. The accounting firms pay compensation to their staffs lower than labor standards (comparing to the workload).	4.22	0.822	Highest

Table 3 Basic statistics of the problems of the administration of accounting firms in ‘financial management’ aspect. (Cont.)

Financial Management Aspect	\bar{x}	SD	Meaning
3. The resignation rate of the staffs is high due to the work overload.	4.18	0.783	High
4. The accounting firms have low profits because there is highly competitive.	4.19	0.807	High
Total	4.20	0.720	High

Table 4 Basic statistics of the problems of the administration of accounting firms in ‘Knowledge development’ aspect.

Knowledge Development Aspect	\bar{x}	SD	Meaning
1. The accounting firms do not monitor the changes of the financial reporting standards and new tax laws.	4.16	0.831	High
2. The accounting firms do not encourage their staffs to attend training from internal and external organizations.	4.10	0.777	High
3. The accounting firms do not pay attention to the knowledge management.	4.24	0.815	Highest
Total	4.17	0.711	High

Table 5 Basic statistics of the application of BSC in accounting firms in ‘Finance’ aspect.

Finance Aspect	\bar{x}	SD	Meaning
1. The accounting firms must manage the capital both in short-term and long-term in order to eliminate the shortage of funds.	4.19	0.806	High
2. The accounting firms must manage the liquidity by analyzing customers' financial status.	4.19	0.799	High
3. The accounting firms must calculate the cost of providing customer services in order to comply with the charges of the services.	4.17	0.790	High
4. The accounting firms must draw up a budget for controlling costs and office expenses to achieve the operational efficiency.	4.19	0.811	High
Total	4.19	0.707	High

Table 6 Basic statistics of the application of BSC in accounting firms in ‘Customers’ aspect.

Customers Aspect	\bar{x}	SD	Meaning
1. They take care of their customers with great service mind.	4.22	0.721	Highest
2. They provide good knowledge and advices to the customers in terms of accounting, taxation, and etc.	4.21	0.741	Highest
3. They have other services apart from accounting and taxation but they might be charged in some cases.	4.22	0.811	Highest
4. They should screen and select good customers to their businesses without cutting prices or stealing customers from other accounting firms.	4.10	0.870	High
5. They should organize good document delivery system so the customers can comply with the system.	4.17	0.812	High
6. They should follow up the customers about document delivery and payment of services with the creativity of following up.	4.21	0.833	Highest
Total	4.19	0.710	High

Table 7 Basic statistics of the application of BSC in accounting firms in ‘Procedures’ aspect.

Procedures Aspect	\bar{x}	SD	Meaning
1. They use the necessary technology in the work system.	4.09	0.798	High
2. They should divide duties and responsibilities appropriately for their staffs or divide fields of work to gain expertise in each area.	4.12	0.804	high
3. They should set the schedule to comply with the deadline for submitting the financial statements or taxes for the customers.	4.17	0.874	High
4. They should advise job descriptions for the staffs to know about their duties and responsibilities.	4.22	0.845	Highest

Table 7 Basic statistics of the application of BSC in accounting firms in 'Procedures' aspect. (Cont.)

Procedures Aspect	\bar{x}	SD	Meaning
5. They should determine Key Performance Indicator (KPI) of the staffs to restrict and evaluate their performances.	4.17	0.785	High
Total	4.15	0.716	High

Table 8 Basic statistics of the application of BSC in accounting firms in Knowledge development and the growth' aspect.

Knowledge Development and the Growth Aspect	\bar{x}	SD	Meaning
1. The accounting firms must monitor the changes in accounting standards and tax laws consecutively.	4.14	0.852	High
2. The accounting firms must promote and encourage the staffs to attend training both internal and external to develop the human capital.	4.22	0.862	Highest
3. The accounting firms must focus on knowledge management and pass on knowledge to others.	4.18	0.779	High
4. The accounting firms have good information system to use as a strategy for the growth.	4.15	0.817	High
5. The accounting firms have professional code of ethics to encourage the standardization of business operations in the preparation of financial statements.	4.05	0.812	High
Total	4.14	0.708	High

Statistical hypothesis testing

The application of the Balanced Scorecard management was related and influence problem solving abilities of the accounting firms.

It can be written as hypotheses as follows:

H0: The application of Balanced Scorecard management did not relate and did not influence problem solving abilities of the accounting firms.

H1: The application of Balanced Scorecard management related and influenced problem solving abilities of the accounting firms.

Table 9 The results of Stepwise Multiple Regression analysis to study the application of Balanced Scorecard relating and influencing problem solving abilities of the accounting firms.

	B	SE	t	Sig.
Constant	.113	.057	1.998	.046
Customers perspective	.611	.029	20.775	.000
Financial perspective	.365	.028	12.850	.000
R square = 0.933 F = 2657.87 Sig = 0.000* Adjust R Square = 0.932				

*It was statistically significant at the .05 level.

From Table 9, it was found that the Constant of the application of the Balanced Scorecard management in Customer Perspective and Financial Perspective, has the Sig < .05 indicated that the secondary hypothesis was accepted (H1) and the primary hypothesis was rejected (H0). It meant that the application of the Balanced Scorecard management in Customer Perspective and Financial Perspective influenced problem solving abilities of the accounting firms statistically significant at the .05 level. The coefficient of determination (R-Squared) used to compare the models that had unequal numbers of predictive variables with a value of 0.932, meaning that the positive influence in administration in the accounting firms was 93.2%, which could be written as an equation as follows:

$$Y \text{ (Administration in the accounting office)} = .113 + .611 (C) + .365 (F)$$

Where: C is the Customer Perspective.

F is the Financial Perspective.

Discussions

From the study of relationship and influence of the application of Balanced Scorecard management in the customer perspective and financial perspective found out that it influenced on administration to solve problems in the accounting firms. This research used multiple regression method with a sample of 344 people.

The results revealed that the accounting firms' operations in Bangkok confront four main problems as follow:

The first problem was about the providing services to customers which was at the highest level ($\bar{x}=4.22$) because they were highly competitive. The customers preferred lower service charges. Moreover, the customers had problems about incomplete documents and the delay in receiving them. They also had problems in communication.

The second problem was about the working procedures of the accounting firms which was at the highest level ($\bar{x}=4.21$). It found that there was the delay in receiving documents from the customers. As a result, the financial statements were

closed nearly the time that they had to submit that files to the government agency.

The third problem was about the money management problems which was at a high level ($\bar{x}=4.20$). The accounting firms paid low compensation to their staffs comparing to their workload. Therefore, the resignation rate was high. Moreover, the high competition made the accounting firms got low profits.

The last problem was in the field of knowledge development which was at a high level ($\bar{x}=4.17$). Due to the accounting firms did not focus on knowledge management such as knowledge transference and knowledge storage.

For the management of the Balanced Scorecard that was applied to solve the problems in the administration of the accounting firms by using multiple regression found that the customer perspective and financial perspective influenced on management to solve problems in administration in the accounting firms with statistical significance at the .05 level. In terms of customer perspective, it was at a high level ($\bar{x}=4.19$). Taking good care of customers, providing service with service mind and offering other services such as tax planning, consulting about business operations, or financial management which conformed to the research of Pruksa Kaewsan et al. (2020) who studied about service guidelines of quality accounting department in Thailand. The qualitative analysis results revealed that understanding the customer expectations and complying with customer complaints were the main factors in providing good service to the customers.

For the Balanced Scorecard management, the financial perspective was at a high level ($\bar{x}=4.19$). The accounting firms had to manage cash flows and liquidity by preparing expenditure budgets to control cash inflows and outflows at different times in order not to suffer from liquidity shortages which conformed to the research of Soratat Sriwichupong et al. (2021) who studied about the Liquidity Management Affects the Firm Growth of Small Land Medium Enterprise (SMES) in Thailand.

From the perspective of the procedures and knowledge development that were analyzed by stepwise multiple regression analysis were unaffected. They were not used in multiple regression equation may be due to the accounting firms thought that was the normal problems. In terms of coordinating with the customers, especially the delay in receiving documents, they got used to it and they could solve such problems. Therefore, it was not considered as a crisis.

For the knowledge development, the person who was in charge of closing the financial statements by registering as the bookkeepers must attend in training continuously about 12 hours per year according to the Accounting Act B.E. 2543 (2000) which was considered sufficiently. If the staffs did not register, they might not need to enhance their knowledge. Because the accounting firms may consider that there were not many differences in the financial statements and there was not complicate in transaction.

Recommendations

Recommendations from research

From the research by using the multiple regression method, it was found that the application of the Balanced Scorecard management for solving the accounting firm's problems has two influencing factors which were the customer perspective and the financial perspective. The accounting firms were service businesses. Therefore, good customer service is the key to success. In terms of financial management to ensure the liquidity, it would result in an appropriate compensation which would be enough for all employees in the office. This could reduce the problem of employee resignation that will shorten the workforce and affect the services to customers. In terms of the knowledge development was also important to help the accounting firms' services to have good standards and could provide good services to customers.

Recommendations for Future research

For the next research, the researcher should study other management approaches that can be applied in the management of operations in the accounting firms such as Total Quality Management or the Five Force Models.

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Guidelines for Campaigning the Youths in Samut Sakhon Province to Realize about the Morality of “Growing Good”

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Abstract

This study aimed to investigate whether there was an impact on the youths in Samut Sakhon province to realize about the morality of “Growing Good” by collecting the data from Thai youths in Samut Sakhon province, employing Simple Random Sampling (Lottery). The 397 self-administered questionnaires were used as the research tools. Stepwise Multiple Regression Analysis was used as a statistic to test the research questions.

It was found that the campaign “Growing Good” had an impact on the youths in Samut Sakhon province to realize about the morality of “Growing Good” in Family Basic Discipline, Educational Institution Basic Discipline, and Socialization aspects (statistical significance level=0.05). The qualities found from this campaign included honesty and integrity, greater good, fairness and justice, responsibility and accountability, and sufficiency living.

Keywords: campaign, youths, growing good

Background and statement of the problem

In Thailand, it was understood that corruption was one of the first-priority problems in the country and affected the country development severely. For ages, such an incident was found in different careers and considered as a part of Thai fundamental culture (Yotsomsak, 2006). Corruption issues had been seen normal. Cheaters were also accepted if they could work well (Chiangkun, 2006). Therefore, some were willing to pay more money to the corrupted state officials only for the privileges and some were doing the same way just like “When at Rome, do as the Romans do.” It was so shocking that in every year, more than 80% traders and businesspersons embraced and practiced such pay-more-for-privilege ideas. These corrupted practices costed larger than 300,000 million baht and left in fewer private hands, not the public ones (Sewikul, 2011).

Thai government had been spending more budget on the basic infrastructures than it had being supposed to do while Thai citizens had been receiving the infrastructures of low standards. Thailand government failed to gain trust from the investors due to the corrupted government officials’ practices. In case the two parties practiced conspiracy, the corrupted government itself was not able to monitor the cheating investors (Piriyarangsun & Pongpajit, 1993).

Corruption was found in educational management in many ways. They involved educational procurement, building construction, personnel management system, student admissions management system, central budgetary subsidies, teachers credit unions, building futsal courts and structures. The influential people’s networking involving these issues comprised of senior government officials, educational institution directors, politicians, businesspersons, traders, and contractors. In case of building construction, school administrators defined the construction spec

in order that their chosen contractor could win the tender. It was estimated that the benefit share among these people was on the average of 30% of the overall budget. Educational institution directors especially from big-size schools could also gain money from students' lunch projects as frequently heard from the publicized news.

Neither the developed countries nor the developing countries could not stay away from the corruption. It became one of the biggest problems found in various countries and continued to create greater-negative and more complicated impacts in the countries even though these countries had considered-modern governing system as well as banning corruption campaigns from both governmental organizations and non-governmental organizations. In addition, the independent entities involved in these campaigns could be United Nations, World Bank, and private sectors. They all agreed that the corruption brought about the country poverty and became the great obstacle of the country development.

According to the results of the survey, from both ABAC and NIDA, studied in the youths aged 10 or above, it was found that the cheating or taking advantage attributes included skipping the queue to buy products or receive services. (87.6%), giving bribes in return for officers who provide services to facilitate (80.0%), corruption behavior while working (81.2%), office property corruption (92.4%), driving in violation of traffic rules (31.39%), willingness to pay or be extorted from the state officials (26.87%), getting Paid to vote for politicians (18.19%), using the patronage system or giving special privileges to relatives (13.81), copying a friend's homework or report in youths (54.7), and cheating in exams (74.9). As mentioned, it was therefore crucial to find ways to change the youths' mindset, hoping that they truly realized how negatively the corruption has affected the country development.

Samut Sakhon province is located near Thonburi University. This province is very important to the country's economy; there are a great number of industries and laborers involved. Hence, the researchers were curious to find ways as well as the guidelines for campaigning the youths in Samut Sakhon province to realize about the morality of "Growing Good" in order that they would grow up and create no-corruption country.

Research objectives

1. To study whether the youths in Samut Sakhon province realize about the morality of "Growing Good".
2. To study the guidelines for campaigning the youths in Samut Sakhon province to realize about the morality of "Growing Good".

Concepts, theories, related research, and conceptual framework

Guideline for campaigning the youths in Samut Sakhon province to realize about the morality of "Growing Good"

The term "Public Sector Corruption" was used to refer to "gaining benefits or income from cheating while working as a government official (Pongpajit, 2000). No matter it was illegal or not, this practice was considered dissatisfied for people's expectation in terms of government officials and politicians' ethical standards (Peters, Waterman, & Jones, 1982). According to Thailand criminal law section 1(1), corruption could similarly be "dishonesty" which means in such a manner as to enrich oneself or another by an unlawful means.

Meanwhile, according to criminal law section 4 under the executive measures in anti-corruption act B.E. 2542, "corruption in duty" means any act or omission in

any position or duty, any act or omission in the circumstances which may cause other persons to believe that he or she has the position or duty, despite the fact that he or she has no such position or duty, or exercise of the position or duty as to take, for himself or herself or for the other person.

Moreover, according to the criminal law section 3 under the executive measures in anti-corruption act B.E. 2551, “corruption in public sector” means corruption in duty or misconduct in public sector whereas “corruption in duty”, according to the criminal law section 4 under the executive measures in anti-corruption B.E. 2551, means any act or omission in any position or duty, any act or omission in the circumstances which may cause other persons to believe that he or she has the position or duty, despite the fact that he or she has no such position or duty, or exercise of the position or duty as to take, for himself or herself or for the other person, any advantage to which he or she is not entitled by law to act or commission of malfeasance in the official position or duty or commission of malfeasance in the judicial office, under the Penal Code or other laws.

Values in realizing about the morality “Growing Good”

1. ‘Honesty and Integrity’ means believing in being truthful and righteous, having a good intention to oneself and others, and no cheating. For example, teach the youths not to take someone else’s belongings without his or her permission and let them learn to be responsible for their duties when assigned.

2. ‘Greater Good’ or public consciousness is to have a conscience for the public. Recognize and think about the society. Have responsibility for their own actions in order not to create troubles to the public. And, ready to sacrifice oneself to maintain the common interest. Doing good things for the public is volunteering with personal obligations, but it must be done.

3. ‘Responsibility and Accountability’ is to take responsibility for your own actions. It is to have awareness of one’s roles and duties and perform the duty to the best. Respect the rules and always ready to check the action. If there is any wrongdoing, they are ready to admit it and correct it. The important thing is to be responsible for the results of your own actions. For executives or politicians, they have to take responsibility for the job but when an error occurs. Do not blame others or be irresponsible for what they do. If a person has a common sense, when making a mistake, doing anything illegal, or getting a job done without realizing it, his or her responsibility is to resign.

4. ‘Fairness and Justice’ or social justice is to treat others equally with reason, without discrimination against gender, race, class, socioeconomic status. It is not to take advantage of anyone. A corrupt person is someone who takes advantage of others, not respecting rules and think of himself or herself as the main. So, it is very important to teach children to be understood with simple things such as respecting the rules.

5. ‘Sufficiency Living’ or live in sufficiency is to live life by adhering to the principle of moderation, honesty, not greed restraint and do not take advantage or encroach upon oneself and others. This will remind us that money is not the answer to everything. It is that we are happy stay by yourself. Live with family and be satisfied with what you have. Living in accordance with the Sufficiency Economy Philosophy is considered a good role model that should be practiced. Realizing the moderation in life, feeling satisfied with what you have, and being thrifty and valuing things are essential to building self-sufficient habits. Live in sufficiency will not cause a person to be selfish and unconscious to take advantage of others and society.

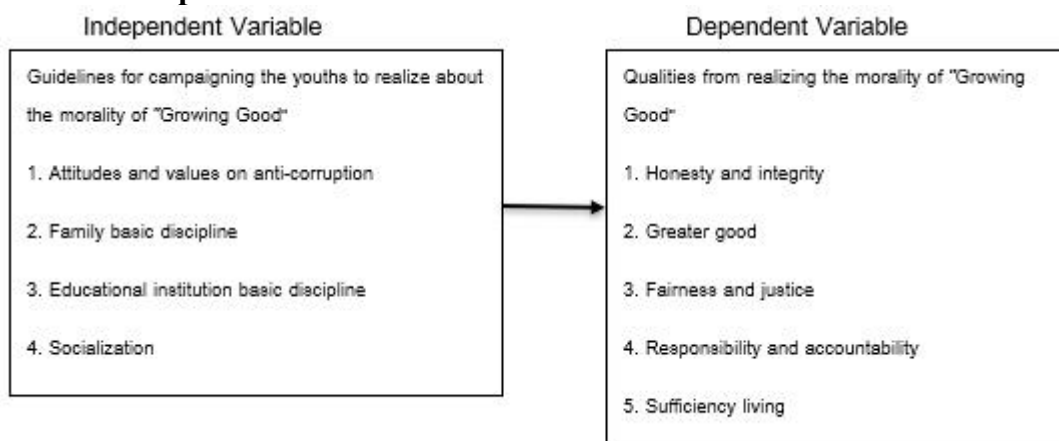
Socialization refers to the process of educating members in learning social order to appreciate and adopt rules. Those rules of conduct go into practice. Socialization is what human beings have to experience throughout their lives in order to enable humans to adapt to the society they belong to as well.

Socialization is divided into 2 types:

1. Direct socialization is such a discipline that parents give to their children whether it is teaching to speak, teach about dining etiquette, teach to call brothers, sisters, grandfathers, grandmothers, etc. In this case, the teacher and the recipient will be directly conscious of the process of teaching and learning.

2. Indirect socialization is found in reading the newspaper, listening to the radio, or watching television as well as watching movies. The recipient learns unconsciously. What is learned will gradually be absorbed into the subconscious. It is both what is accepted by society and something that society does not accept. Indirect socialization involves to joining with friends and colleagues. This will help a person to adapt and develop personality.

Conceptual Framework:



Research Methodology

The research model is quantitative research. There is a process for preparing a questionnaire for Thai youth aged 15 to 24 years in Samut Sakhon province, which is 60,354 people (Samut Sakhon Provincial Administrative Organization, 2020).

Population and sample:

The number of samples was calculated using the Taro Yamane formula for 397 people (Yamane, 1970).

Instruments:

A tool used to collect the research data on the subject Guidelines for Campaigning for the Youths in Samut Sakhon Province to Realize about the Morality "Growing Good" is questionnaires.

The questionnaires consisted of 3 parts:

Part I: General information of the respondents

Part II: Information about the qualities to realize about "Growing Good"

Part III: Information about the campaign for the youths in Samut Sakhon province to realize about the morality of "Growing Good"

For questionnaires, validity and reliability testing was used in terms of the accuracy and consistency of the research instrument. By 3 experts, the questionnaires

were edited according to the advice of the experts (IOC=1.00-0.67) and considered being able to collect the data.

The 30 sets of tested questionnaires were distributed to the respondents in Nonthaburi Province and collected (Cronbach Alpha=0.872), which is at a good level (Tairuerkam, 2008). The questionnaires were therefore reliable and could be studied with the actual samples.

Data Collection:

The data was collected from the respondents in 3 districts, including, Meung district, Kratumban district, and Banpaew district, in Samut Sakhon province. Google-Form questionnaires were distributed via a number of Facebook groups.

Data Analysis:

The statistical tools were employed to analyze the collected data. Descriptive statistics, comprising of frequency, percentage, mean and standard deviation and inferential statistics, including Stepwise Multiple Regression were used to study whether the guidelines for campaigning “Growing Good” had a relation or impact on the youths’ qualities of “Growing Good”

The Assessment Level:

4.21 - 5.00	=	Highest
3.41 - 4.20	=	High
2.61 - 3.41	=	Medium
1.81 - 2.60	=	Low
1.00 - 1.80	=	Lowest

Research Results

Table 1 Basic statistics of the awareness about "Growing Good" in ‘Honesty and Integrity’ aspect

Honesty and Integrity Aspect	\bar{x}	SD	Assessment Level
1. ‘Honesty and integrity’ helps you earn trust, respect, reliability, accolade, and happiness.	4.59	0.635	highest
2. ‘Honesty and integrity’ drives career advancement and other good opportunities in life.	4.55	0.623	highest
3. ‘Honesty and integrity’ will not bring you any troubles, be reprimanded, or receive any penalties.	4.48	0.710	highest
4. ‘Honesty and integrity’ brings benefits to the public.	4.49	0.616	highest
5. People who have ‘honest and integrity’ will be good examples for society and should be praised.	4.47	0.632	highest
Total	4.51	0.456	highest

Table 2 Basic statistics of the awareness about "Growing Good" in 'Greater Good' aspect

Greater Good Aspect	\bar{x}	SD	Assessment Level
1. Having 'greater good' brings benefits to the public.	4.48	0.612	highest
2. Having 'greater good' makes you happy to help society.	4.49	0.595	highest
3. Having 'greater good' makes a good society by helping, sharing, and taking care of each other.	4.52	0.653	highest
4. Having 'greater good' helps to upgrade the country's society.	4.47	0.632	highest
Total	4.49	.465	highest

Table 3 Basic statistics of the awareness about "Growing Good" in 'Fairness and Justice' aspect

Fairness and Justice Aspect	\bar{x}	SD	Assessment Level
1. Social fairness and justice prevents taking advantage of each other.	4.49	0.669	highest
2. Social fairness and justice helps people have equal rights or reduces the social gap.	4.47	0.636	highest
3. Social fairness and justice creates peace to the society.	4.44	0.658	highest
Total	4.46	0.521	highest

Table 4 Basic statistics of the awareness about "Growing Good" in 'Responsibility and Accountability' aspect

Responsibility and Accountability Aspect	\bar{x}	SD	Assessment Level
1. Be aware of the suffering caused by your own actions that make you feel uncomfortable.	4.42	0.683	highest
2. Find a way to prevent damage from your own actions.	4.53	0.607	highest
3. Find a way to solve the problem caused by your own actions.	4.37	0.628	highest
4. Accepting what you have done and think of a solution, not passively or put the blame on others.	4.47	0.624	highest
Total	4.45	0.452	highest

Table 5 Basic statistics of the awareness about "Growing Good" in ‘Sufficiency Living’ aspect

Sufficiency Living Aspect	\bar{x}	SD	Assessment Level
1. Never hurt yourself by spending money reasonably.	4.47	0.611	highest
2. Using resources appropriately, not exceeding the limit of the resources.	4.45	0.635	highest
3. Having an immune, live happily and sustainably	4.40	0.684	highest
Total	4.45	0.490	highest

Table 6 Basic statistics of the awareness about “Growing Good” in ‘Attitudes and Values on Anti-Corruption’ aspect

Attitudes and Values on Anti-Corruption Aspect	\bar{x}	SD	Assessment Level
1. Be aware of the negative impacts of the corruption towards the society.	4.38	0.771	highest
2. Be aware of not taking advantages of the others.	4.45	0.659	highest
3. Be aware of keeping on the right side of the law and ethically living with others.	4.49	0.637	highest
	4.45	0.471	highest

Table 7 Basic statistics of the awareness about “Growing Good” in ‘Family Basic Discipline’ aspect

Family Basic Discipline Aspect	\bar{x}	SD	Assessment Level
1. Being aware of the negative impacts of the corruption towards the society by family basic discipline.	4.35	0.666	highest
2. Being aware of not taking advantages of the others by family basic discipline.	4.41	0.654	highest
3. Being aware of keeping on the right side of the law and ethically living with others by family basic discipline.	4.45	0.737	highest
4. Family members are good examples to be followed.	4.49	0.649	highest
	4.43	0.484	highest

Table 8 Basic statistics of the awareness about “Growing Good” in ‘Educational Institution Basic Discipline’ aspect

Educational Institution Basic Discipline Aspect	\bar{x}	SD	Assessment Level
1. Teachers are good examples to be followed	4.40	.714	highest
2. There are textbooks or subjects taught about how to be good citizens of the country.	4.47	.698	highest
3. There are activities encouraging you to be aware of anti-corruption.	4.45	.601	highest
	4.41	.467	highest

Table 9 Basic statistics of the awareness about “Growing Good” in ‘Socialization’ aspect

Socialization Aspect	\bar{x}	SD	Assessment Level
1. Campaigns about anti-corruption are held by various types of media.	4.42	0.691	highest
2. Campaigns about anti-corruption are held by the influencers such as the Internet idols, youtubers, etc..	4.30	0.689	highest
3. Campaigns about anti-corruption are held by the cooperation of the public and private sectors together with community leaders.	4.38	0.843	highest
	4.42	0.467	highest

Hypothesis testing:

The campaign “Growing Good” had a relation and impact on the awareness of the morality “Growing Good”.

H₀: The campaign “Growing Good” had neither relation nor impact on the awareness the morality “Growing Good”.

H₁: The campaign “Growing Good” had relation and impact on the awareness the morality “Growing Good”.

Table 10 Analysis using Stepwise Multiple Regression in finding whether the campaign “Growing Good” had relation and impact on the awareness the morality “Growing Good”.

	B	SE	t	Sig.
(constant)	1.983	.151	13.151	.000
Family Basic Discipline	.178	.042	4.184	.000
Educational Institution Basic Discipline	.143	.040	3.539	.000
Socialization	.243	.041	5.958	.000
R square=0.425	F=93.972	Sig =0.000*	Adjust R Square=0.420	

* statistical significance level=0.05

From Table 10, it was found that the constants of ‘Family Basic Discipline’, ‘Educational Institution Basic Discipline’, and ‘Socialization’=Sig < .05. It was shown that H₁ was accepted while H₀ was rejected, referring that ‘Family Basic Discipline’, ‘Educational Institution Basic Discipline’, and ‘Socialization’ had an impact on the awareness of the morality “Growing Good” (statistical significance level=0.05). In addition, R-Squared=0.420, representing the positive impact on the awareness of the morality “Growing Good” (42.0%) and can be described as follows:

$$Y_{\text{awareness "Growing Good"}} = 1.983 + .178(R_1) + .143(R_2) + .243(R_3)$$

where R₁=Family Basic Discipline

R₂=Educational Institution Basic Discipline

R₃=Socialization

Discussions

According to the study on the relation and impact on the campaign “Growing Good” in order to create awareness in the youths in Samut Sakhon province, collecting the 397 samples and using Stepwise Multiple Regression, it was found that the campaign “Growing Good” in ‘Family Basic Discipline’, ‘Educational Institution

Basic Discipline', and 'Socialization' aspects had an impact, creating awareness about "Growing Good" (statistical significance level=0.05).

In 'honesty and integrity' aspect, the assessment level was the highest ($\bar{x}=4.51$). This indicated that people who had honesty and integrity were honored, trusted and happy, which was in accordance with the research from Chollawith Jianjit, Srinakarinwiroj University (Jianjit, 2011), whose study was about the University Students' Awareness about the Morality: The Case Study of the Faculty of Social Sciences Students.

In 'greater good' aspect, the assessment level was the highest ($\bar{x}=4.49$). This indicated that people who had greater good were happy to help the society, which was in accordance with the research from Anchalika Piewpet (Piewpet, Luanganggoon, & Kumpol, (2002), whose study was about Factor's Influencing Matthayom 4 Students' Greater Good in Upper Northeastern Region of Thailand.

In 'fairness and justice' aspect, the assessment level was the highest ($\bar{x}=4.46$). This indicated that there would not be any advantages taken in the society if there was fairness and justice in people.

In 'responsibility and accountability' aspect, the assessment level was the highest ($\bar{x}=4.45$). This indicated that people could find a way not to act or behave irresponsibly.

In 'sufficiency living' aspect, the assessment level was the highest ($\bar{x}=4.45$). This indicated that people were aware of spending money reasonably without hurting themselves, which was in accordance with the research from Kannika Piromrat (Bhiromrat, 2010), whose study was about Students' Living Behavior in terms of Sufficiency Economy Philosophy at Rajabhat Universities in Bangkok.

In 'attitudes and values on anti-corruption' aspect, the assessment level was the highest ($\bar{x}=4.45$). This indicated that people were aware of keeping on the right side of the law.

In 'family basic discipline' aspect, the assessment level was the highest ($\bar{x}=4.43$). This indicated that family played an important role in creating awareness and disciplines to behave under rules.

In 'educational institution basic discipline' aspect, the assessment level was the highest ($\bar{x}=4.41$). This indicated that the teaching materials taught about how to be a good citizen in the country were useful.

In 'socialization' aspect, the assessment level was the highest ($\bar{x}=4.42$). This indicated that campaigns about anti-corruption are held by various types of media were effective, which was in accordance with the research from Pamornrat Chomphuprawiro (Chomphuprawiro, 2018), whose study was about Creating Students' Awareness about Honesty in Yala, Pattani and Narathiwat Provinces together with the research from Office of the Education Council, Thailand (Office of the Education Council, 2019), whose study was about the Student Discipline Enhancing in Honesty Aspect at Fundamental Education.

Recommendations

Recommendations from the study:

According to the analysis, using Stepwise Multiple Regression, it was found that the campaign "Growing Good" had an impact in the youths in Samut Sakhon province. The youths realized about the morality "Growing Good" by 'Family Basic Discipline', 'Educational Institution Basic Discipline', and 'Socialization'. It is because these three institutions are close together with the youths. Family is the first

institution that shapes the youths to follow the rules. Education institution is the second that teaches them for years to be fair and righteous. And, society, considered as the most important institution, is capable of leading and keeping the youths on the right track. It is because the youths will be surrounded by the society for most of their lifetime. And, with the advancing technology, socialization is expected to work at its best in disciplining the youths for growing good or no cheating when mature.

Recommendations for further research:

For the future study, the researcher may need to find other forms of campaigns in order that the researcher may later come up with the more tangible outcomes.

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An investigation of Rear Differential Failure in a Pickup Truck

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Abstract

This research aimed to investigate the failure of the rear differential in a pickup truck that was approximately used for 12 years of service. The pinion gear was already made of low alloy steel JIS-SCM 425. There are several methods of gear failure analysis starting with the consideration of the macro and micro morphology of the burnt surface area, chemical composition metallurgical analysis, and mechanical properties analysis of materials. The results were found abrasive wear and deformation on the surface area of the pinion gear was found and characterized by burnt lubricant damage and molten gear teeth resulting from lack of lubricant during operation until causing damage to the contacts of the gear teeth. However, the analysis of summary results can be accorded with the assumption of this research and information for finding ways to prevent further wear of gears.

Keywords: pinion gear, abrasive wear, burnt surface area

Introduction

The rear differential is responsible for the power transmission from the gearbox. That is to forward it to the drive shaft of the wheel at different speeds and to achieve a balanced rotation while turning by reducing the gear ratio slowing down the speed of the propeller shaft to suit the size of the wheels of the car, but still can deliver higher power in the same speed of the engine. The important parts of the rear differential are pinion gear and ring gear as shown in Figure 1. The power transmission will change the direction of rotation to transmit power to the drive shaft on the wheel increasing the balance between the two wheels and allowing the car to turn better while cornering.



Figure 1 Rear differential model of hypoid bevel gear

For applications, the rear differential is used to support the reverse and alternating rotation, so the gear must be strong and durable in the long term for the use of that vehicle. Generally, the failure causes of gear during service is mechanical fatigue which is the most dominant one and occurs under normal operation with fluctuating stresses much lower than that required to cause failure during a single application (Netpu & Srichandr, 2013; L. H. Zhao et al., 2019). For fatigue failures, they usually start at critical regions where structural, material or manufacturing defects exist and the useful life of a gear is determined mainly by the critical regions(Park et al., 2018).

The material used to produce gears in vehicle industry is mostly alloy steels. In the application of gears, strength and toughness are required to provide a long-term fatigue life, the material should be precisely controlled and gear should be well machined and properly heat-treated. The crack initiation may be caused by metallographic defects inclusions of material scratches on the surface, inadequate machining, heat treatment and/or even dislocations and slip bands intersecting on the surface under cyclic loads(Khan et al., 2019; Pandey & Lim, 2020). Manufacturing process could also significantly affect the fatigue performance of gear. Machining, heat treatment and hard gear finishing are traditionally used to improve the fatigue strength and prevent premature failures of gear by introducing compressive residual stresses on the surface and can increase wear resistance and introduce an existence of compressive residual stresses, leading to an increased fatigue life(Fernandes & Mcduling, 1997; Ruchert et al., 2020).

At the same time, gear hardness tests are used to verify if the hardening performance meets the manufacturer's requirements(Fernandes, 1996; Jones et al., 2011; Rajinikanth et al., 2019). The lubricant property is also an important factor for gear failure during operation. Premature failure is attributed to the use of lower viscosity lubricant that would have led to insufficient film formation at the mating teeth which may lead to inefficient lubrication (Kishore et al., 2020a). A gear material fatigue test by determining the stress relative to the number of cycles using the S-N curve indicates that cyclic bending loadings can be one of the main causes of fracture in the gear and the fracture occurs at the location of the diameter change of the gear where high stress concentration exists (Khameneh & Azadi, 2018; Kishore et al., 2020; Prabhakaran, 2014).



Figure 2 The wear and burn marks of rear differential contact

Even with a pickup truck that had been on an application for a long time and properly maintained, the problem still encountered was that the customer did not notice that the differential gear had leaked lubricant, until too low for application. The ensuing the problem of low lubricating oil causes the rear differential to work harder and cause burn marks on the contact surface as shown in Figure 2. This research aims to study burn marks at the interface of the rear differential. In a pickup truck with a power output the of 144 Hp, the gears are made of low-carbon steel that has been designed and processed with heat treatment. There are several methods for analyzing burns at the differential contact marks; mechanical test, chemical composition analysis and microstructural analysis. The results of this study will be able to identify the mechanism of damage as well as analyze the underlying cause which is a guideline to prevent damage to the rear differential that will occur in the future.

Materials and methods

In this research, it is analyzed the cause of the failed pinion gear which the investigation was carried out in four modes: 1. Visual examination of burns surface area; 2. Metallographic examinations; 3. Chemical composition analysis; 4. Mechanical properties. The detailed failure investigation was conducted as follows:

Visual examination of burns surface area

The failure of the pinion gear is visually inspected for an overview of burn marks including location, shape, size, general appearance, and surface of the burn. The specimens are obtained from burn gear teeth. The aging characteristics were examined with a digital camera (Nikon D80), and the specimens were examined with a scanning electron microscope (JEOL: JSM-7800F prime) for greater details. The specimen is cut perpendicular to the front area of the gear as shown in Figure 3.

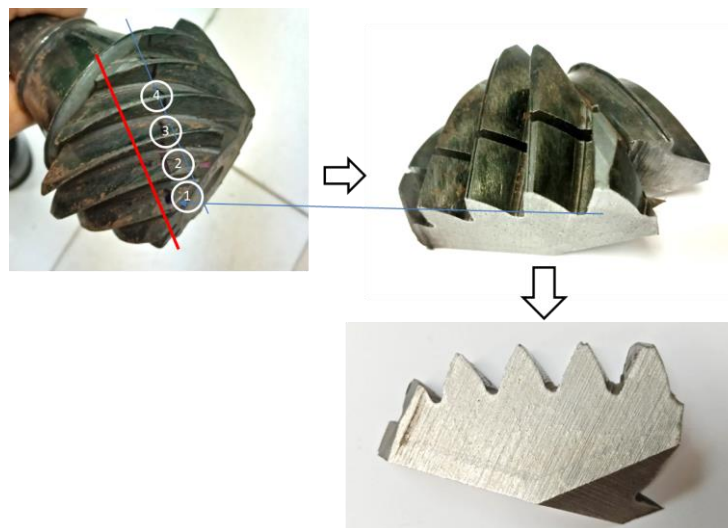


Figure 3 The specimen of cutting position to investigate the appearance of wrinkles

Metallographic examinations

Metallographic examinations at the transverse cross section of the pinion gear mounting the specimen in a synthetic resin cast into a small mold, polished, etched (Nital 5%), and photographed using the optical microscope (Olympus laser microscopes: OLS 4000) to examine the microstructure of the specimens.

Chemical composition analysis

The chemical composition is the examination of the chemical compounds of metals to meet the requirements of the gear material. The chemical composition of the pinion gear material was analyzed using an optical emission spectrometer (Thermo: ARL 3460). In addition, inclusions were detected on quantitative elemental analysis with EDS (Energy Dispersive Spectroscopy) at the burnt surface area of gear tooth by scanning electron microscope (SEM).

Mechanical properties

Mechanical properties were tested as micro-hardness was measured using ANTON PAAR: MHT-10 with a diamond pyramid angle of 136° indenter and 300 g load. A total of 20 points were measured to establish the hardness profile from the surface to the center in the root circle of the pinion gear.

Results and discussion

Visual examination of burns surface area

Visual inspection of the pinion gear using a zoom stereo microscope is shown in Figure 4. Enlarged image from multiple gear positions. Scratches were found on both surfaces of each gear tooth. Contact marks are characterized by damage from burnt lubricant and molten gear teeth, called crow's footing. They are types of longitudinal surface fatigue on the gear teeth. These marks occur when the gears are rotated during operation with insufficient lubricant or improper lubrication. Contact between two gears, which is abrasive to the part while in use, causes failure of the gear tooth contacts. It is also found that the lubricant was black and had a burning smell.



Figure 4 The burnt appearance of damaged pinion gear

Examination of pinion gear burns using a scanning electron microscope (JEOL: JSM-7800F prime) are the following. Photographs were obtained from the burns surface at high magnification as shown in Figure 5. Found traces of *abrasive wear* and deformation at the surface area of gear teeth are the deformation of the workpiece surface that is a solid object that is displaced or has a movement of the material resulting from the interaction with the surface of another object or other particles. The particles can be embedded deep into the surface of the two materials that come into contact with each other and have frictional movement between them. This causes friction on the surface of less hard materials. Abrasive wear can occur when there is no loose material but it occurs because the surface roughness of another material causes friction unlike adhesive wear, this wear mechanism does not have atomic bonds formed on the two surfaces. Abrasive corrosion may occur when the fluid contains solid particles and has a direction of movement parallel to the surface of the material and those particles cause the surface of the material to gradually little by little deterioration. The hardness of the material is an important factor in the abrasive wear rate of the workpiece surface. That is, if the material surface has high hardness, the wear rate is low and if the surface hardness of the material is higher than the hardness of the abrasive particles, even slight wear will be noticed and the particles may break into shreds.

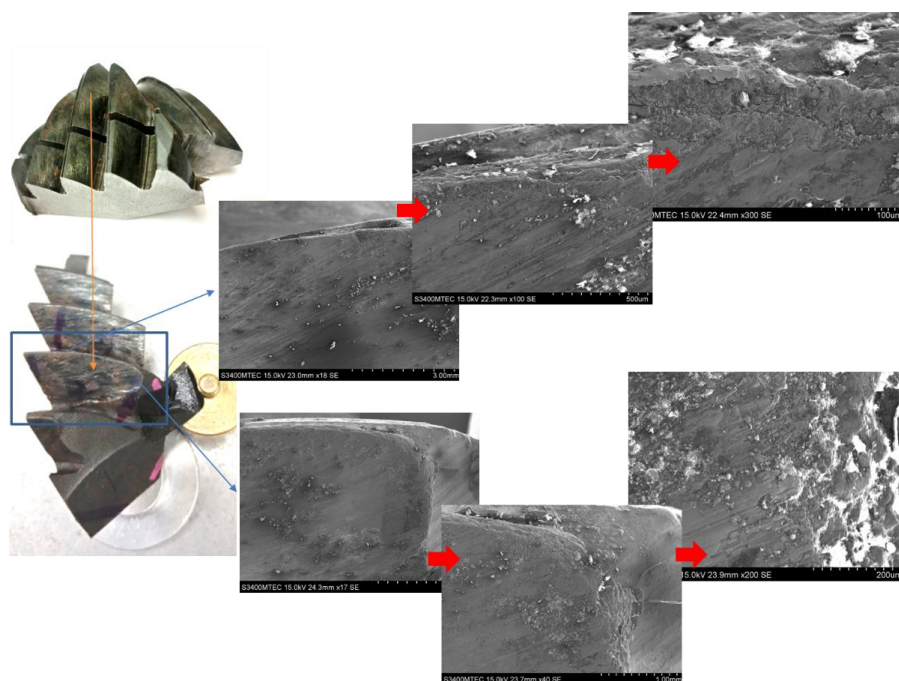


Figure 5 High magnification (SEM) images of the failed pinion gear burnt in several locations reveal traces of abrasion wear and deformation in the gear tooth surface

Metallographic examinations

Microstructures of failed pinion gear were examined using Olympus laser microscopes: OLS 4000. Figure 6 is a low-magnification photograph, Figure 7 is an enlargement, showing that the tooth tip shows different damage. By comparison, tooth No. 1 was the least abrasive position while No. 4 on the side was the most abrasive position.

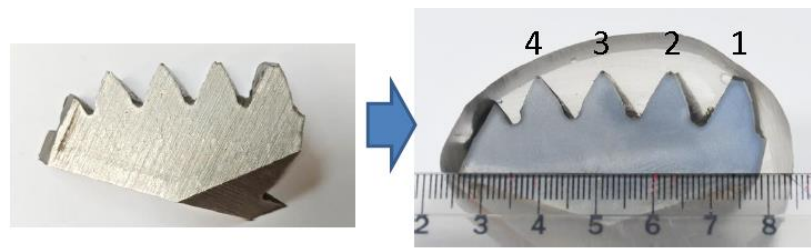


Figure 6 Low magnification of failed pinion gear

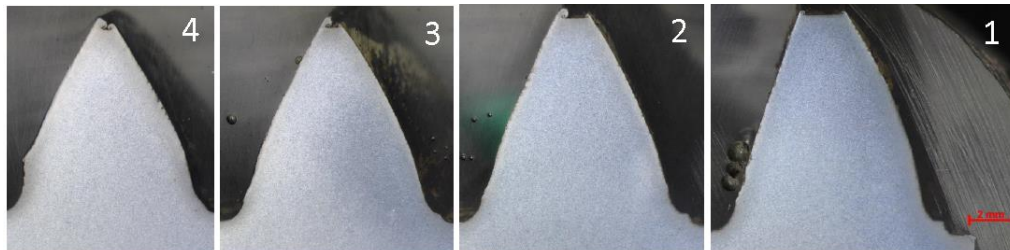


Figure 7 Low magnification of all 4 teeth with different failure

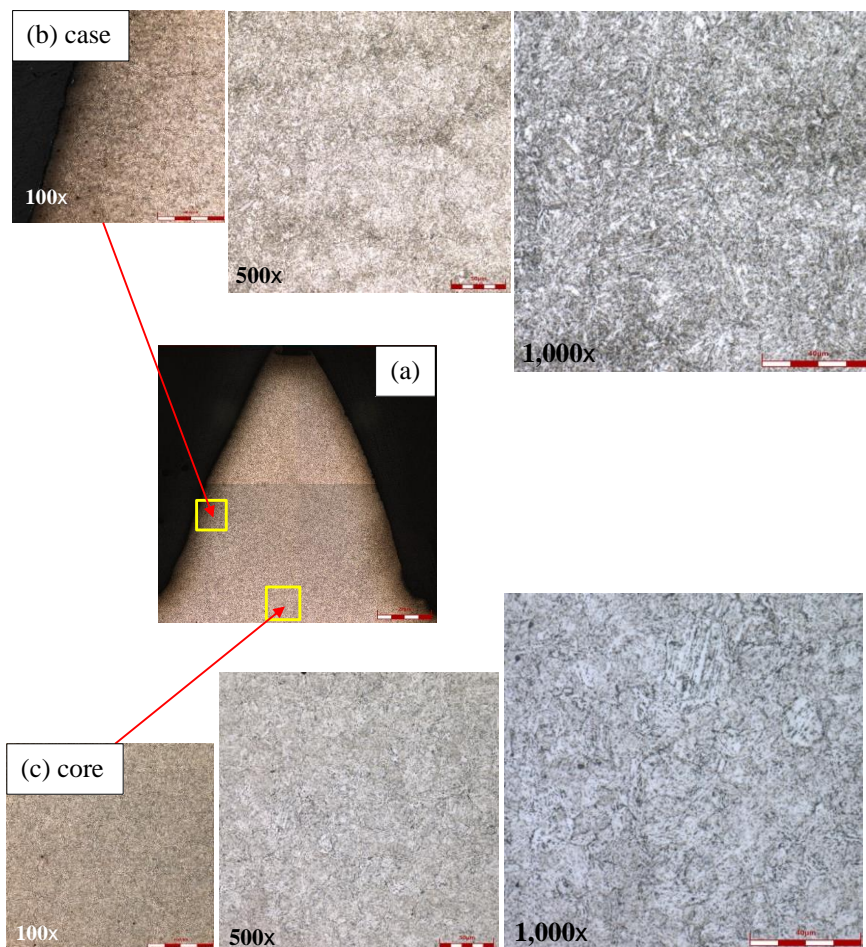


Figure 8, (a) Low magnification of pinion gear 1x (2 mm), (b) The surface area of the pinion gear at magnifications 100x (400 μm), 500x (50 μm), and 1000x (40 μm) respectively, magnified to reveal a tempered martensite (c) The center of the gear at magnifications 100x (400 μm), 500x (50 μm), and 1000x (40 μm) respectively, magnified to reveal the upper bainite

Figure 8(a), magnification of 1x (2 mm) is a photograph of the microstructures examined at both points on the surface center of the pinion gear. Figure 8(b), magnification from 100x (400 μm) expand to 500x (50 μm) to 1000x (40 μm), respectively. The surface area of the pinion gear showed that the microstructure was composed of tempered martensite. The microstructure of tempered martensite consists of extremely small and uniformly dispersed cementite particles embedded within a continuous ferrite matrix; this area is a structure that undergoes transformation due to relatively high heat (Over 500°C). In addition, martensite become very hard and brittle with increase in the ductility and toughness of martensite and these internal stresses relieved by a heat treatment. Figure 8(c) has a magnification ranging from 100x (400 μm) to 500x (50 μm) to 1000x (40 μm), respectively. The central region of the pinion gear shows that the microstructure is composed of the upper bainite. Upper bainite is generally stronger and harder than pearlitic ones, yet they exhibit a desirable combination of strength and ductility. The structure can exhibit fine bainitic laths and appear more like pearlite is termed 'feathery' bainite which is nucleated by a shear mechanism at the austenite grain boundaries. These structures arise from cases where austenite is converted to bainite, which occurs in a relatively high temperature range of about 400-550 °C. Generally, upper bainite is generally stronger and harder than pearlite steel. But it has a desirable combination of hardness and toughness(Callister, 2007).

Chemical composition analysis

The chemical composition of the pinion gear material was analyzed using a spectrophotometer test machine. The average values of the chemical composition of gear material are shown in Table 1. The chemical compositions of the filed pinion gear are made from low-alloyed steels JIS G4053: Standard grade SCM 425, commonly and widely used in making gears. This means that proper material was used for making the gear. The composition of tested material is adequate for the special alloy structural steel SCM 425. The alloy structural steels are widely used in automotive and aircraft components with high toughness as axles, axle journals, gear shafts, turbine parts, and turbine rotors.

Table 1 Chemical composition of the failed pinion gear and those of SCM 425 steel (%wt.)

Materials	C	Si	Mn	P	S	Ni	Cr	Mo
Failed gear	0.72	0.25	0.93	0.016	0.009	0.088	1.09	0.15
(Case)	0.28	0.21	0.86	0.014	0.010	0.019	1.13	0.25
(Core)								
JIS - SCM	0.23-	0.15-	0.55-	≤	≤	≤ 0.25	0.85-	0.15-
425	0.28	0.35	0.95	0.030	0.030		1.25	0.30

Energy dispersive spectroscopy quantitative elemental analysis was performed at the burn area of the pinion gear using an SEM telescope at position 1, as shown in Figure 9. The scan line is divided into two areas. The following elements: Area 1 contains elements (Iron: Fe = 77.60%) (Oxygen: O = 17.08%) (Carbon: C = 4.87%) (Molybdenum: Mo = 0.34%) (Silicon: Si = 0.12%). Area 2 contained trace elements (Iron: Fe = 63.27%) (Oxygen: O = 26.05%) (Carbon: C = 8.69%) (Phosphorus: P = 1.35%) (Silicon: Si = 0.64%) and no abnormalities were found in the composition of the mixed elements in the pinion gear.

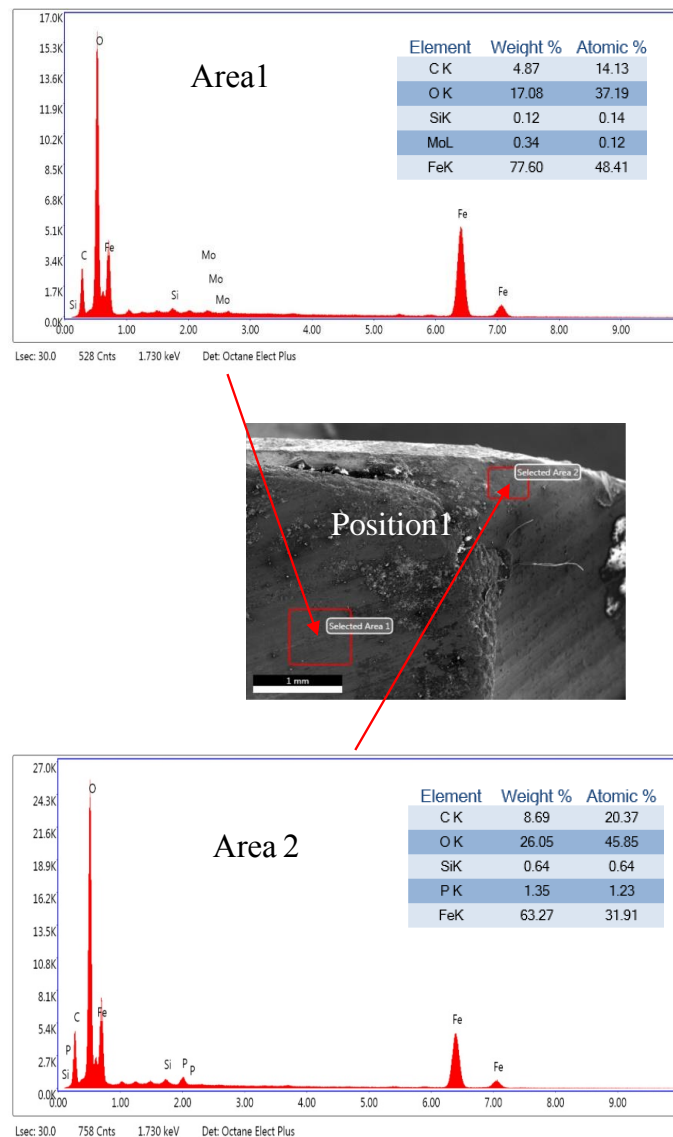


Figure 9 The EDS graph of the burn surface area of the pinion gear in position 1

Figure 10, the burn surface area of the pinion gear is examined using an SEM. In the position 2 of the scan line divided into 2 areas, it can be seen that the following elements are present: Area 1 contains the elements. (Iron: Fe = 68.40%) (Oxygen: O = 17.05%) (Carbon: C = 9.95%) (Silicon: Si = 1.38%) (Calcium: Ca = 1.56%) (Chlorine: Cl = 1.13%) (Aluminum: Al = 0.30 %) (Manganese: Mg = 0.24%) Area 2 contained trace elements (Iron: Fe = 83.93%) (Oxygen: O = 12.66%) (Carbon: C = 2.02%) (Chromium: Cr = 1.39%) and no abnormalities were found in the composition of the mixed elements in the pinion gear.

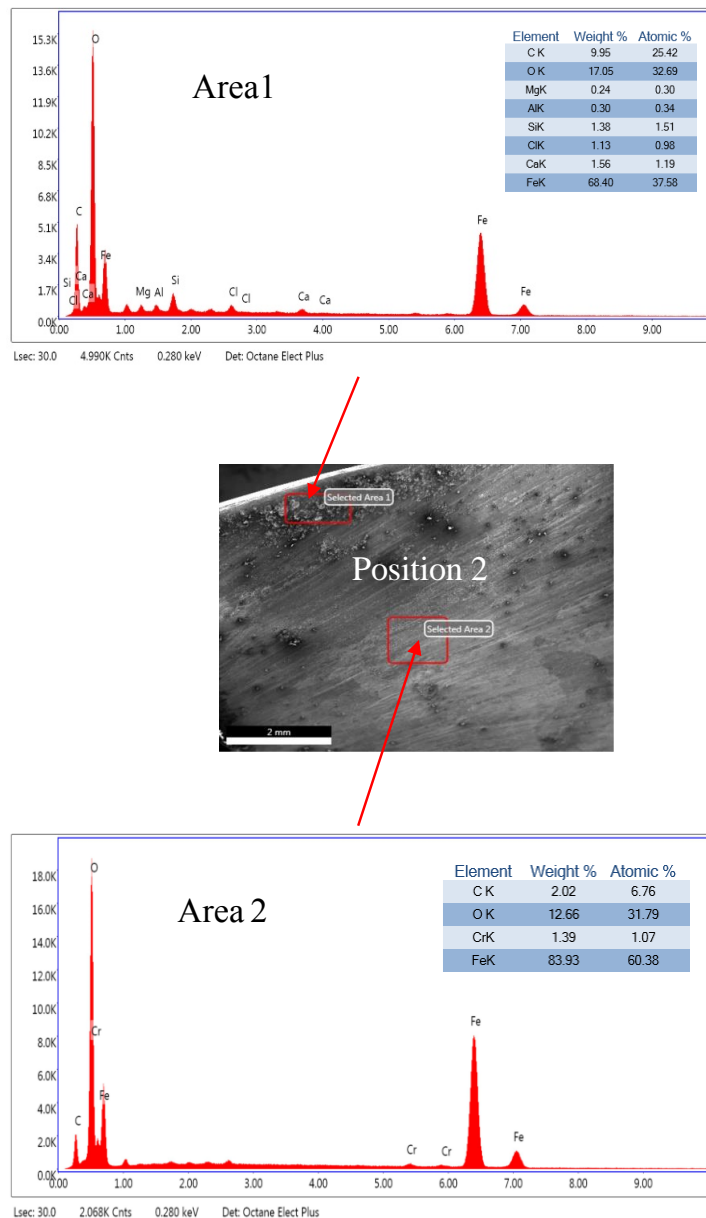


Figure 10 The EDS graph is taken of the burn surface area of the pinion gear in position 2

Mechanical properties

The hardness distribution across of the pinion gear tooth thickness in different regions of the cross section using a Vickers hardness tester with an Anton paar: MHT-10, hardness measurements are carried out along three cross-sections, as shown in Figure 11. The hardness value will be obtained as shown in Figure 12. The hardness value of the first line (Blue color), the highest value at the surface of the pinion gear is 370 HV (59.5 HRC) and the hardness decreases radially (2.95 mm) until the hardness value and the lowest at the center of the pinion gear is 250 HV (31 HRC), the second hardness (Red color) is the highest at the surface of the pinion gear is 400 HV (59.5 HRC) and the radial decrease in hardness (2.95 mm) until the minimum hardness at the center of the pinion gear is 280 HV (31 HRC). While the third hardness (Green color) value is the highest value at the surface of the pinion gear is 470 HV (59.5

HRC) and the hardness decreases along the radius (2.95 mm) until the minimum hardness at the center of the pinion gear is 250 HV (31 HRC). Summarize the effect of hardness on the surface pinion gear at the 3 lines, it is found that the line 3 (Green color) is the hardest. It has the highest hardness of 470 HV and the most abrasive frontal notch. Line 2 (Red color) had the hardness reduced to 400 HV. Line 1 (Blue color) had the least hardness of 370 HV and has the least abrasive front teeth marks, as well as notice that the hardness values of each gear area are quite different(F. Zhao et al., 2018).

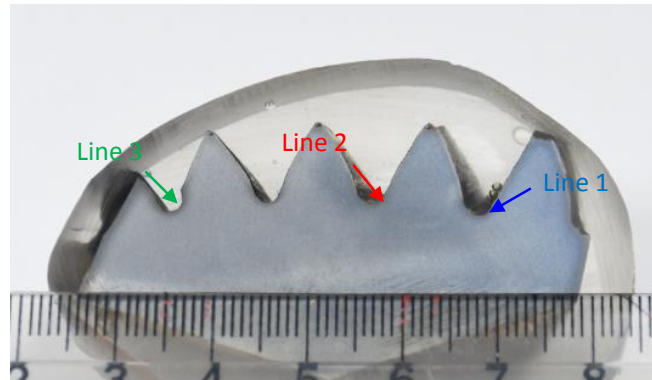


Figure 11 The failed pinion gear hardness measurement line is measured from case to core of the gear.

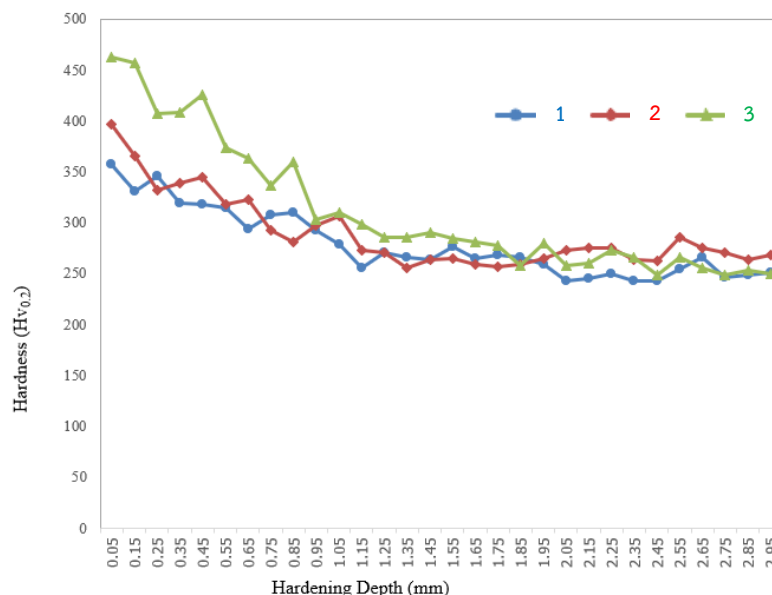


Figure 12 The graph showing the hardness layer of all 3 lines failed pinion gear.

Conclusions

This research was to analyze the failure causes of the differential gear. The chemical composition, mechanical property, and microstructure of JIS-SCM 425 low-alloy steel pinion gear were analyzed by proper processing and surface hardening can be summarized as follows.

The surface microstructure of the pinion gear contains temper martensite and in the central axis of the pinion gear microstructure is upper bainite that has no abnormalities in the microstructure of the pinion gear.

The burn surface area of the pinion gear is characterized by failure from burnt lubricant and molten gear teeth that arise from the rotation of the gear during insufficient lubricant or improper lubricant application. Contact between two gears, which is abrasive to the part while in use, causes damage to the gear tooth contacts.

The hardness test of the pinion gear with Vickers hardness measurement revealed that the hardness values of each gear tooth area were quite different.

Suggestion

Based on the findings and conclusions the following recommendations are drawn:

1. A sample of the lubricant should be taken for testing to determine the presence of foreign substances in the lubricant.
2. A finite element analysis of friction should be carried out.

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People's Behavior and Satisfaction with the Pao Tang Application in the Nong Khaem District

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Abstract

A study of people's behaviour and satisfaction with the Pao Tang Application in Nong Khaem District has several objectives were to 1) investigate people's behaviour of the Pao Tang application in Nong Khaem, and 2) to investigate people's satisfaction with the Pao Tang application in the Nong Khaem area. The researcher gathered data from the 400-person sample group via an online questionnaire in Google Form. The questionnaire was used in this study, and the statistical values used for data analysis were frequency, percentage, mean, and standard deviation using Chi-Square correlation method and One Way Anova analysis.

According to the findings of the personal factors, the majority of respondents were female, aged 18-27 years, single, held a bachelor's degree or equivalent, were employee of a private company with a monthly personal income of 15,001-20,000 baht. It was discovered that most respondents used the service in the form of exercising their rights under the state welfare program, with a time range of 12.01-18.00 hrs., a frequency of use of 1-3 times per week, a cost range of 101-300 baht, and the influential person in using the service, that is himself, uses the service because there is a government welfare program. In terms of satisfaction, it was discovered that in terms of safety and convenience, immediacy was the most important factor. There was a high level of satisfaction.

The hypothesis testing yielded the following results:

1. Differences in personal variables like as age, education level, and average monthly income were seen when users interacted with the Pao Tang application service at the 0.05 level of statistical significance.

2. Different service usage behaviors have an effect on the level of satisfaction with the Paotang application. Through testing the pair, it was discovered that service customers who exercised their rights under the state welfare program have a different level of satisfaction with the service than those who utilize the utility bill payment service. And those who spent between 601 and 900 baht on services had different satisfaction from those who spent between 901 and 1,200 baht at the 0.05 level of statistical significance.

Keywords: behavior, satisfaction, Pao Tang Application

Background and statement of the problem

The current world's society is rapidly changing. And there's additional spending through other apps, one of which is a wallet app that is straightforward, quick, and simple to use. A cashless society is now being discussed. Currency will be less important and will be replaced using computers and mobile phones to conduct financial transactions instead. In Thailand, e-Money was found to account for only 20% of all financial transactions which is around 70-80 percent of the Thai population having bank accounts. Wallet Application or e-Wallet is another sort of electronic money or e-Money that has data on the network, with the potential to increase up to 80%. Network-based is currently gaining popularity and is displacing traditional methods of payment for products and services. Consumers are beginning to understand and adapt to modern technology by beginning to concentrate solely on mobile phones. The growth in smartphone users and the creation of new payment solutions among service providers demonstrate this as well as the government's encouragement through the initiative named “Khon La Krueng” and “Rao Chana” that encourages customers to use electronic payment systems to change their habits. It also helps improve the payment system's efficiency. We see potential for mobile payment business models that are playing a role in based on the reasons. Instead of utilizing cash or credit cards in the future, this is an easy, quick, and effective payment solution.

An e-Wallet, also known as an online wallet, is a payment system that operates through a mobile phone application rather than a physical wallet. This will eliminate the necessity for people to carry cash while purchasing goods or services. Furthermore, an online wallet application is classified as an e-payment or financial technology (FinTech). Thailand uses an online wallet application to eliminate the need of cash and assisting many people who do not have access to debit or credit cards for the purchase of goods or services. As a result, the emergence of online wallet software will aid in bridging the gap between traditional and electronic payment and the use of cash and credit card. Alternatively, people can use mobile technology for payment processes. According to the survey, cash has significant management costs such as the expenses of printing banknotes, the cost of transporting money to various locations as well as security costs. There is also the downside that users must budget enough money to purchase products or services, which can be difficult if the product or service is of high value. Carrying huge sums of money increases the risk of violence. Moreover, the banknotes and coins that everyone uses daily are carriers of many diseases. When considering online wallet applications that Thai people like to use, such as True Wallet, Airplay, G Wallet and Rabbit Line Pay, most of them are non-banks because of the less value of money transfers to pay for goods or services and there is no usage fee. It is also widely popular since it includes receiving special promotions from various retailers, as well as spending the majority of the lifestyle-related, such as top-ups in online games, line stickers, and movie ticket discounts, among other things. If financial institutions are unable to adapt to technological advancements, their position may be diminished. It is probable that the banks' commercial opportunities will dwindle. Therefore, financial institutions began to advertise that they did not impose fees when making financial transfers and paying invoices. As a result, this section's fee income vanished. As the government encourages people to use their phones to do transactions through Wallet Application when doing

payment of goods or services, service providers are also able to track consumer behaviors. For example, a list of items purchased on a regular basis that can be used to showcase products that suit or meet the needs of clients. From the perspective of a financial institution, such data can be used to evaluate how important it is for service providers to improve to affect client behavior and encourage them to switch to the service. Instead of using cash to pay for goods or services, you can use an online wallet program. People are beginning to pay more attention to their phones, and technology is beginning to play a role in everyday life.

Thus, a study of people's behavior and satisfaction with the Pao Tang app in the Nong Khaem district would assist service providers in improving the app to better meet the demands of users. It also enables relevant business departments to use the data to develop and improve the system so that it is safe and effective when in use.

Objectives

1. To investigate people's behavior when using the Pao Tang application in Nong Khaem district.
2. To investigate people's satisfaction when using the Pao Tang application in Nong Khaem district.

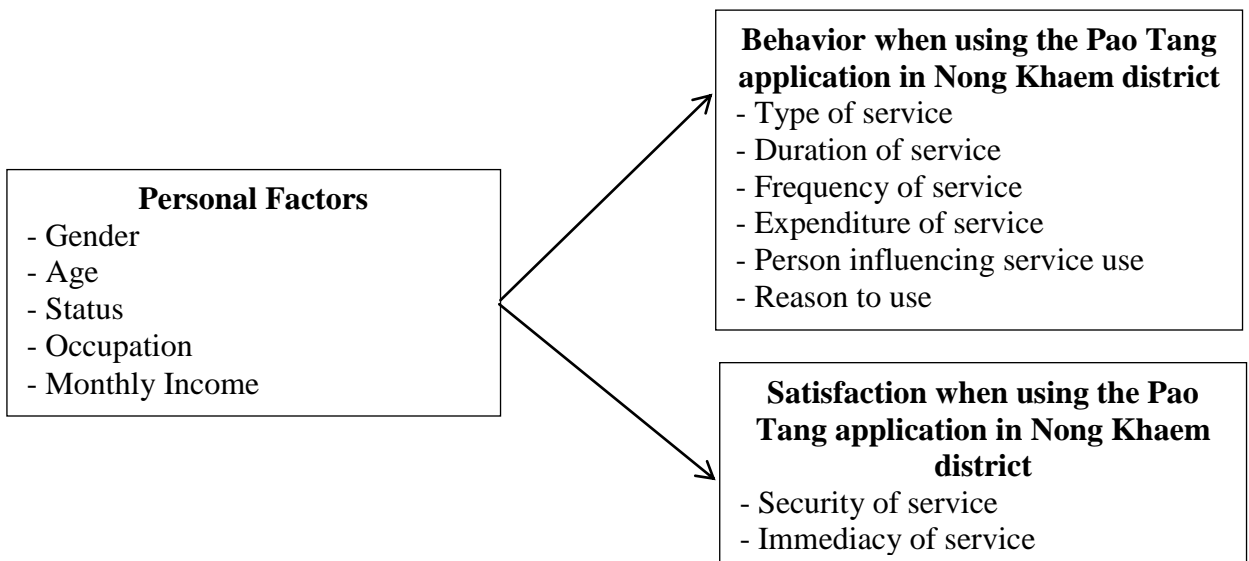
Research Hypothesis

The researchers had developed the following hypotheses for this study:

1. Different personal factors had no effect on how people in Nong Khaem district used the Pao Tang application.
2. Different service usage patterns influence how satisfied residents of Nong Khaem are with the Pao Tang application.

Conceptual Framework

The researcher employed the following principles to the investigation of people's behavior and satisfaction with the Pao Tang application in Nong Khaem district:



Research Methodology

The population in this study was users of the Pao Tang application by focusing exclusively on service users in the Nong Khaem area. The sample for this research was 400 people who used the Pao Tang application in Nong Khaem District between August and September 2021.

The researcher collected data from the sample group by creating a questionnaire in Google Form and then distributing it via social media platforms such as Facebook, Line to a sample of 400 people who responded to the questionnaire via the researcher's link or QR Code.

The researcher analyzed the data using the computer program SPSS, as detailed below.

1. Analyze the respondents' personal characteristics and represent them as a percentage using the frequency approach.
2. Conduct an analysis of respondents' wallet application usage patterns, calculating the frequency and presenting the results as a percentage.
3. The data on user satisfaction with the Pao Tang app was examined using Mean and Standard Deviation.
4. A One-Way Anova analysis was utilized to measure the correlation between individual factor factors and how residents in the Nong Khaem area use Pao Tang applications. Statistical significance is set at the 0.05 level. Given the fact that they were identified to be significantly different, they were analyzed utilizing the LSD (Least Significant Difference) approach to compare the pairings.

Research Results

Section 1 details the respondents' personal characteristics.

According to the research findings, the majority of respondents were female (N=208, 52%), between the ages of 18 and 27 (N=215, 53.75%), had single status (N=233, 58.30%), held a bachelor's degree or equivalent (N=221, 55.25%), were employees of private company (N=196, 49%), and had a monthly personal income of 15,001-20,000 baht (N=156, 39%).

Section 2 details how residents in the Nong Khaem area use the Pao Tang application service.

According to the study's findings, the majority of respondents used the service to defend their rights under the state welfare program (N=127, 31.75 %), did so between 12.01 and 18.00 o'clock (N=204, 51 %), used the service 1-3 times a week (N=15/8, 49.50 %), paid between 101 and 300 baht (N=175, 43.75 %), the person who has the most influence over the use of the service is myself. (N=216, 54%), and had the rights under the state welfare program (N=125, 31.25%).

Section 3 details how satisfied residents of Nong Khaem are with the Pao Tang application service.

The researcher gathered data on customer satisfaction regarding Wallet application service for residents of Nong Khaem, including information on security and

convenience/immediacy from a total sample of 400 people. It may be summarized as follows:

Table 1 Mean and Standard Deviation of People in Nong Khaem District's Security Satisfaction with Pao Tang Application Service

Security	\bar{x}	SD	Interpretations
1. The wallet application's users' information will be kept private.	4.15	0.754	Satisfied
2. Control data access and Pao Tang application access by always inputting the verification code.	4.15	0.741	Satisfied
3. Minimize risk of exposure without carrying cash	4.13	0.771	Satisfied
4. The level of security associated with face authentication must correspond to the level of security associated with the ID card.	4.10	0.832	Satisfied
5. Can successfully transfer money from the wallet application to the bank account.	4.15	0.780	Satisfied
6. The wallet application is a dependable source of funds.	4.06	0.773	Satisfied
7. No one else can access your wallet application's financial information.	4.08	0.784	Satisfied
Total	4.11	0.325	Satisfied

According to Table 1, overall security was high (\bar{x} =4.11) The wallet application's users' information will be kept private (No. 1), control data access and Pao Tang application access by always inputting the verification code (No. 2) and can successfully transfer money from the wallet application to the bank account (No.5) were all rated highly (\bar{x} =4.15)

Table 2 Mean and Standard Deviation of Satisfaction with Convenience and Immediacy of Pao Tang Application Service in Nong Khaem District

Convenience and Immediacy	\bar{x}	SD	Interpretations
8. The Pao Tang application can be used for up to 18 hours (06.00-23.00)	4.14	0.776	Satisfied
9. Verification of identity to exercise rights in the project via the Pao Tang application, which allows users to link their G-wallet accounts easily and rapidly.	4.15	0.727	Satisfied
10. Able to quickly scan and pay via QR Code	4.09	0.751	Satisfied
11. The process of making the transaction is convenient and fast.	4.18	0.713	Satisfied

Table 2 Mean and Standard Deviation of Satisfaction with Convenience and Immediacy of Pao Tang Application Service in Nong Khaem District (Cont.)

Convenience and Immediacy	\bar{x}	SD	Interpretations
12. It is an additional payment channel.	4.17	0.737	Satisfied
13. Able to quickly top up through various bank applications	4.08	0.809	Satisfied
14. Can easily and quickly check the history of previous usage.	4.14	0.763	Satisfied
Total	4.13	0.571	Satisfied

According to Table 2, overall convenience and immediacy was high (\bar{x} =4.13) The process of making the transaction is convenient and fast (No.11) was rated highly among other factors (\bar{x} =4.18)

Section 4 shows recommendations from the research

The findings of an analysis of recommendations from residents of Nong Khaem District regarding their satisfaction with the Pao Tang application. The researcher evaluates the information in form of content analysis and gives the data in form of percentages. The following suggestions were offered by respondents:

1. Hope that the wallet application is secured to access and that users do have ability to examine their own information at any time.
2. Prefer a wallet application that is simple and quick to use.

Section 5 shows comparative findings about the effects of changes on people's behavior and satisfaction with the Pao Tang application in Nong Khaem District

The results of data analysis were used to compare the satisfaction levels of service users with the Pao Tang application among residents of the Nong Khaem area by categorization of individual characteristics, usage behavior and service user satisfaction were compared using the T-test and one-way Anova analysis. The researcher will subsequently perform the pairing (Least Significant Difference: LSD). If no statistically significant difference exists at the 0.05 level, the preliminary agreement is not settled. However, if the difference is statistically significant at the 0.05 level, the results are in accordance with the preliminary agreement.

Discussions

The research regarding users' behavior and satisfaction of Pao Tang Application in Nong Khaem district. The following are some topics that can be discussed:

1. The first hypothesis is that different personal factors influence how people use apps. The residents of Nong Khaem were no difference. Personal characteristics, such as age, educational level, and monthly income, were discovered to have different behaviors when using the Tao Tang application at the 0.05 level of statistical significance which was in line with Grijbanleurat and Kaewpromman (2022) [1] did a study on the factors that influence consumers' decisions to adopt an e-Wallet application in Bangkok. Consumers with gender, age, and education level, type of service were discovered to have different behaviors. It also aligns with the findings of Mikhanmak et al. (2021) [2], a

researcher on the factors influencing the adoption of the wallet application. The findings revealed that respondents' behaviors and acceptance of the Pao Tang application varied depending on their age, occupation, and monthly income at the 0.05 level of statistical significance.

2. The second hypothesis was that multiple service usage behaviors influenced consumers in the Nong Khaem area's satisfaction with the Pao Tang application in different ways. Using the wallet application had a different influence on user satisfaction at the 0.05 level of statistical significance. The satisfaction of the users who make use of the state welfare project's rights was different from those who use the utility bill payment service. And the satisfaction of individuals who paid 601-900 baht for the was a different level from those who paid 901-1,200 baht. This was in line with Worawathamonchai's research (2017) [3] who investigated the topic of factors affecting E-wallet Application usage in Bangkok and periphery. The findings revealed that the sample group that pays various payments such as credit card bills on a regular basis is more likely to use E-wallet Application in the future. Additionally, this is compatible with Wipachpreechakul's study (2020) [4], a study of the behavior of people who use the Pao Tang application in Bangkok. It was discovered that economic policy aspects influenced the population's behavior when it regards to using the Pao Tang application in Bangkok. Most of them use the service as part of their economic and consumption-stimulating initiatives "Khon La Krueng" which their satisfaction was a different level of enjoyment than those who use it because they avoid carrying cash. Furthermore, it aligns with Kitisittichai's finding (2016) [5] examined the factors influencing consumers' acceptance of the technology of using electronic wallets (E-Wallets) in the purchase of goods in Bangkok and discovered that those who chose to use the E-Wallet service for purchases under 500 baht had a different level of satisfaction than those who chose to use the E-Wallet service for purchases between 1,001 and 1,500 baht. Additionally, it was found that attitude behavior influences the intention to use an e-Wallet at the 0.05 level of statistical significance.

Recommendations

Recommendations from this research

From a study of the behavior and satisfaction of Pao Tang application users in Nong Khaem District. At this point, the researchers have recommendations for those responsible or those involved as a guide for improving, developing, and planning the Pao Tang application's service to fulfill the needs of users in the following ways:

1. Security because of the Pao Tang application service's convenience. Service providers must place a greater priority on customer data protection to avoid causing mistakes or harm to the Pao Tang application users.

2. Both convenience and immediacy are required when loading data. The wallet application and transaction processing may be available 24 hours a day.

Recommendations for Future research

1. The questionnaire was distributed via a single channel in this study; it was distributed online. The following research studies should also visit the area and distribute questionnaires to reach a broader audience and make it easier for users to participate in surveys and data collection.

2. Continued research is necessary because of the ever-changing environment and technology

3. It would be appropriate to investigate additional variables apart from the variables examined, such as the attitude of Pao Tang application users.

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English Language Learning Style among the Undergraduate Students of the Faculty of Education, North Bangkok University

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Abstract

This research aimed to study and compare the English language learning styles of students of the Faculty of Education, North Bangkok University, classified by gender, program and academic year. The sample groups were 163 undergraduate students' program in Early Childhood Education and Physical Education and Sports Science of the Faculty of Education, North Bangkok University, by stratified random sampling. The questionnaire was used as a research tool to collect data with a confidence value of .959. The statistics used in the research were percentage values, mean and standard deviation t-test and F-test (One-way ANOVA).

The results showed that most of the respondents were female, studying third year Early Childhood Education. Whereas the English language learning styles of students from the Faculty of Education, North Bangkok University, was moderate. When considering each style, it was found that the learning style with the highest average was Participant Style, followed by Collaborative Style, Dependent Style, Competitive Style, Independent Style respectively and the learning style with a minor outcome was Avoidant Style. The hypothesis testing results showed that students with different gender, program and academic year were not different in English language learning styles.

Keywords: learning style, English learning style, students' Faculty of Education

Background and importance of the problem

In Thailand, English is used as an international language for communicating with foreigners in addition to the Thai language, which is used as the national language. It is essential to learn English nowadays. Because then a more expansive world is more easily accessible. However, the obstacle to understanding those contents is low proficiency in the English language. Learning English in the Thai basic education system has at least 12 years of study in primary and secondary education and further study at the bachelor's degree level. However, learning English for Thai people is not as successful as it should be (Sane Dechawong. 2017). In addition, from the report of the English language ranking of Thai people in 2019, it was found that the English language usage of Thai people continues to decline. Recently, the English language ranking of Thai people has dropped to 74 out of 100 countries and is in the last group, with a deficient level of English language skills (Very Low). From the English ranking report of 100 countries around the world. English is not used as the primary language of the EF institution. The English language proficiency criteria are divided into five levels, starting with very good English (Very high), Good (High), Medium (Moderate), Bad (Low), and Very Low (Very low). As mentioned above. Thai people's English is in the last group, "Very Low", with a score of only 47.61, which is

a decrease for 3 consecutive years, less from 2018, which received 48.54 points, and less than 2017, which received 49.7 points. Asia is still ranked 17th out of 25 countries (Ed du First English Language Institute, 2019). From such information, it can be seen that in the learning management of English in Thailand, Thai people cannot communicate in English successfully from primary education to higher education levels. In addition to teaching and learning management Instructors, we also need to take the learning style of the learners into account in order to accommodate individual differences. (Block. 1986) It said that learners who do not use learning styles that are appropriate for themselves or have the appropriate type of work are less likely to succeed in language learning. A learning style is personal learning that profoundly affects a person's learning. Grasha (1996) said that the learning style is a personal trait that influences a learner's ability to interact with friends and teachers, including participation in the teaching and learning process. Chaiwat Tantharangsi (2011) also said that Learning styles are learning behaviors that learners express in class, which can be clearly observed. Moreover, it is a style that students like. As a result, there is a determination during study time.

Therefore, the learning style is essential that teachers must concentrate on. Because students have different learning styles, and if the teacher does not pay attention and organizes teaching activities that are not following the student's learning style will cause ineffective teaching results by Sanae Dechawong (2017) said the study model may help teachers know the differences of each student. and know the learning style that each learner likes this enables teachers to manage teaching and learning activities following the needs of the learners. Help students succeed in learning English and be able to use it effectively in real life. This is in line with Borirak Naphaiphon (2015) said that knowing how learners learn will make teaching managers understand that each learner has different methods or styles of learning; for example, some people like to learn by memorization. group report self-discovery learning and will help to manage to learn appropriately.

For this reason, as an English teacher, the researcher is therefore interested in studying the style of learning English. Differences in using English learning styles of students of the Faculty of Education North Bangkok University using a learning model based on the concepts of Graza and Riceman (Grasha and Reichman), which is a learning style suitable for learning at the higher education level. This research will be used as a guideline in recommending learning styles suitable for students and used as a guideline for teaching preparation and improving the teaching of English further.

Research objectives

1. To study the English learning style of students Faculty of Education North Bangkok University
2. To compare the English learning styles of students Faculty of Education, University of North Bangkok, classified by gender, branch and year level

Concepts, theories, and related research and research conceptual framework

In the learning of those who will be successful, how Sometimes it may depend on the learning style of the learners by Graza and Riceman's ideas. (Grasha and Reichman, 1975) The learning styles of learners according to personality characteristics of learners are divided into 6 types as follows:

1. Competitive style: This type of learner learns the subject matter to do better than others in the class. Learners will feel that they have to compete with other learners for rewards, from the class in the form of grades or praise from the teacher by

viewing the classroom as a game that has been won by losing. This type of learner has the feeling that he must always be a winner. Other learners tend not to like to engage with learners like this.

2. Collaborative style: Learners feel that they can learn a lot. Best by exchanging opinions and mutual abilities. Collaboration with teachers and A group of friends who like to work with others see classes as a place for socializing. interaction with each other

3. Avoidant style: This learner is not interested in learning the subject content. The class will study according to the scheme. They were not engaging with the teacher and other learners and ignoring what was going on in the classroom. This type of learner will view the classroom as uninteresting.

4. Participant style: This type of learner wants to learn the subject. Like to attend class, have a responsibility to learn as much as possible in class. Moreover, continue to engage with others in as many classroom activities as possible but will be less involved in activities that are not in the course guidelines.

5. Dependent style: This type of learner shows little desire to learn and will learn only what is compulsory or required. See teachers and classmates as a source of knowledge structure and academic support. This type of learner has no initiative.

6. Independent style: This type of learner likes to think and do various tasks by himself, listens to the opinions of others in the class, has the intention to study and learn the subject matter that he thinks is important and has beliefs. Confident in the ability to self-learning

Related research

Apinan Siriratanajit and Yuwanda Churak (2013) studied students' learning styles in the Faculty of Arts and Faculty of Education at Hat Yai University. The objectives of this research were 1) to study the learning styles of undergraduate students. Faculty of Liberal Arts and Education, Hat Yai University 2) Comparison of learning styles of Bachelor's degree students in the Faculty of Arts and Education, Hat Yai University classified gender, year, and majors; and 3) suggests guidelines for learning management following the learning style of undergraduate students in the Faculty of Arts and Education at Hat Yai University. The sample group were undergraduate students from the faculty of Arts and Education, in the academic year 2012, there was a questionnaire learning style as a tool for research, data analysis method done by the program using statistics 1) Percentage for general data analysis of the respondents 2) Mean and Standard Deviation. For analyzing learning styles of students of the Faculty of Arts and Education, Hat Yai University and T-test and F-test for testing for comparing learning styles of students of the faculty of Arts and faculty of Education, Hat Yai University, classified by gender, year and field of study. The faculty of Arts and Education has the vision is included in the extensive range. When considering each aspect, it was found that there were dependent and participative learning styles. Number one, second independent Collaborative form is third place, competitive form is fourth. Moreover, the last avoidance 2) Student level bachelor's degree, faculty of Arts and Education with different gender, year, and discipline factors have different patterns learning is no different.

Wattanaporn Pattanaphakdee and Patcharee Duangchan's (2014) study on the learning style of pharmacy students at Srinakharinwirot University. This research 1) studied the learning model. of the students of Pharmacy, Srinakharinwirot University (SUT) 2) Compared the scores of the learning of pharmacy students, SWU with different genders, years, fields of study Method of study: sample group There were

377 pharmacy students at SWU in the academic year 2012 who voluntarily answered the survey on learning styles. Research tools were a survey of learning styles developed by the researcher according to the theory of Raja & Reichmann (Grasha & Reichmann), David Dolb (Kolb) and Darl Jung (Carl Jung). The descriptive statistics were mean, standard deviation, percentage, and the inferential statistic was a t-test and One-Way ANOVA to test the research hypothesis. Results: A frequency learning model. The highest student is the sensory and thought use model (66.58%), followed by the cooperative model (64.19%) and the improved model (59.42%), respectively. Avoidance (4.77 percent) Female and male students had different learning styles; each year, students had different learning styles, and students from different programs and branches had different learning styles. Conclusion: The learning styles of students differ according to gender, year, and field of study. Teachers should understand students' learning styles and develop teaching and learning management methods, including teaching and learning activities to learn in accordance with the learning style of the students.

Sirisuk Nakaseni (2014) studied the learning style of students of the faculty of Liberal Arts at the Rajamangala University of Technology Rattanakosin. The purpose of this research was to study and compare the learning styles of students of the faculty of Liberal Arts classified by gender, year of study, and discipline. The sample group used in this research was 240 students of the Faculty of Liberal Arts in the second semester of the 2011 academic year. A random sampling method was used. The instrument used for data collection was a questionnaire with a confidence value of 0.7960. The statistics used for data analysis were percentage, mean, standard deviation, t-value, and one-way analysis of variance. The research results showed that the students had participative, cooperative, dependent and independent learning styles at a high level. The gender of students and different disciplines are different learning styles. And students studying in different years, there was a statistically significant difference in avoidance learning styles at the 0.05 level.

Somporn Komaratat (2016) studied the foreign language learning style of students. Faculty of Arts Dhurakij Pundit University The objectives of this research were 1) to study the pattern of learning foreign languages students of the faculty of Arts, Dhurakij Pundit University 2) to analyze Differences in foreign language learning styles among students of the Faculty of Liberal Arts, University Dhurakij Pundit and 3) to study the relationship between the use of foreign language learning styles and the results of learning the language of students An example used is Undergraduate students in the field of English Chinese and Japanese, 3rd year, the faculty of Arts Dhurakij Pundit University, 155 students. The research instrument was a 5-level Rating Scale questionnaire adapted from The Grasha - Riechman Student Learning Styles Scale with a confidence value of 0.92. The statistics used for data analysis were mean standard deviation. ANOVA for mean difference and Chi-square to test correlation. The research results were as follows: 1) Using the foreign language learning model of students of the faculty of Arts, Dhurakij Pundit University was at a moderate. 2) The students who studied different languages, namely English, Chinese, and Japanese, had different learning styles. When considering each learning style, it was found that students learning different foreign languages had different participatory learning styles. When considering each pair, the statistical significance at the 0.05 level found that the students studying the branch of English use a more participatory learning style than students studying Japanese language courses. 3) Overall, learning styles have no relationship to language learning outcomes. However,

students with high language learning outcomes will use the most competitive form of learning. At the same time, students who have Low language learning outcomes use the most participatory learning style.

Sanae Dechawong (2017) conducted a study on the learning style of undergraduate students. The objective is to study the use of the English language learning model. Differences in using the pattern learning English and the relationship of using learning styles and academic performance of undergraduate students. 3rd-year undergraduate students in the English language, the academic year 2015 at eight universities in Bangkok and surrounding provinces. The research tools are the 5-level Rating Scale questionnaire adapted from the Grasha Riechman Student Learning Style Scale (GRSLSS) had a confidence value of 0.942, and an interview form. The statistics used in the data analysis were percentage, mean, standard deviation, one-way ANOVA and Chi-square Test. The students used the English language learning model at a moderate level.

On the other hand, the students used the cooperative, dependent and participatory learning styles at a high level. Students of different genders had no statistically significant difference in learning styles, and English language learning styles did not correlate with overall student performance. Learn The use of independent and participatory learning styles of Students had a statistically significant correlation with academic performance at .05. At higher levels, independent and participatory learning styles were used more than those with higher grades, medium and low, while students with moderate grades and using learning styles Participation at a high level.

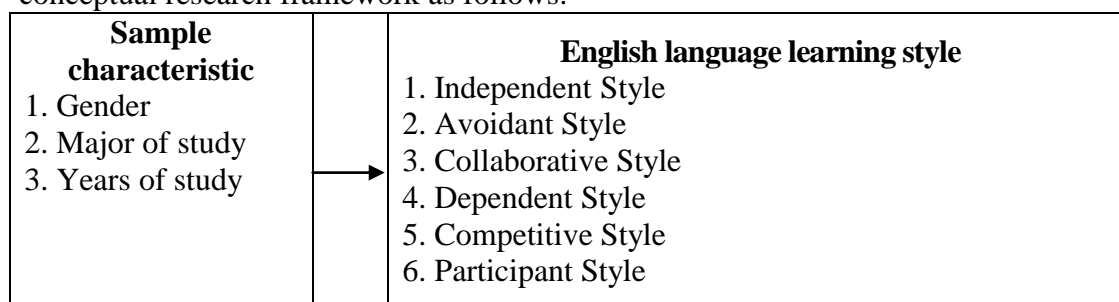
Wilailak Sereetrakul and Peerapat Chukiat (2017) conducted a study on the relationship between learning styles and student personal factors: a case study of Bangkok Thonburi University. The objective of this research was to study the learning style of students of Bangkok Thonburi University and to study the relationship between learning styles and personal factors of students of Bangkok Thonburi University by using a survey research method with a sample of 340 undergraduate students. The research instrument was a conceptual learning model questionnaire by Graza and Riceman. The data were analyzed using a test analyzing variance and Pearson's correlation coefficient. Students use the most participatory learning style and miniature avoidance learning style. Male and female students use different learning styles, and different students use different learning styles. Domicile students upcountry and students residing in Bangkok used different learning styles, and student achievement was positively correlated with participatory learning styles. However, there was a negative correlation with avoidance learning style. The other four learning styles are independent, cooperative, listening and competitive. There was no relationship with academic achievement.

Satita Chokkokkruat (2018) studied students' learning styles in the faculty of Education at Buriram Rajabhat University. The objectives were to study and compare the learning model of students of the faculty of Education, Buriram Rajabhat University, classified by gender, academic results, the field of study, and year. A total of 351 students in grades 1-4 in the faculty of Education, Buriram Rajabhat University, in the first semester of the academic year 2014 was obtained by stratified random sampling. These were independent, avoidance, cooperative, dependent, competitive, and participatory models. The research results were as follows: 1) The learning model of the students in the Faculty of Education, Buriram Rajabhat University, was among the top three as follows: participative model, cooperative

model, and dependency model, respectively. 2) Students of the Faculty of Education, Buriram Rajabhat University. of different genders. There was no difference in learning style, which was statistically significant. 05 3) Students of the faculty of Education, Buriram Rajabhat University. With different learning outcomes, having different learning styles at the level of statistical significance 05 4) Students of the faculty of Education, Buriram Rajabhat University with different branches There are different learning styles. Significant way Statistics at .05 level 5) Students of the faculty of Education, Buriram Rajabhat University, with different years and learning styles, were statistically significant at the .05.

Conceptual framework

From research studies, concepts, theories and related research, it was found that Most variables use gender, branch, and year grade. Most of the dependent variables are based on Grasha and Reichman, the researcher can formulate a conceptual research framework as follows:



Research method

Population and samples

The population used in the research was 275 Undergraduate students studying in Early Childhood Education and Physical Education and Sports Science, the faculty of Education, North Bangkok University, in the academic year 2021.

The samples in the research were undergraduate student's 1st - 4th year studying in Early Childhood Education and Physical Education and Sports Science, the faculty of Education, North Bangkok University, in the academic year 2021, using Taro Yamane's computational formula (Taro Yamane. 1970), a total of 163 samples were obtained by simple random sampling.

Research instrument

The research instrument was a questionnaire with the following actions:

1. Student's learning style adopt a learning style based on the concept of Grasha & Reichman.1975 as a framework and develop the questionnaire divided into two parts as follows:

Part 1, general information is a checklist with gender, field, and year level questions.

Part 2 Study style The Rating Scale form asked about six learning styles, ten items each, totaling 60 items: Independent Style, Avoidant Style, Collaborative Style, Dependent Style, Competitive Style, and Participant Style

2. Bring the questionnaire that has been proposed to qualified persons for review. Appropriateness of questions and revisions, the questionnaire was used to try out (Try-out) with 30 students from the faculty of Education, University of North Bangkok who the sample group were not.

3. Find Confidence (Reliability) in the questionnaire by finding Cronbach's Alpha Coefficient. The confidence value was 0.959.

4. The complete questionnaire was used to collect data.

In the data collection method, the researcher collected data from the target students. One hundred sixty-three returned questionnaires, representing 100% data analyses. Remove all returned questionnaires. Let us analyze the data with the following statistical software packages.

1. Analyze general information of students by finding the frequency and percentage.

2. Analyze the students' learning style level by averaging and the deviation standard.

3. The statistical value of the t-test to compare the differences between the two groups of cases with the students of the faculty of Education.

4. The statistical value of the F-test by One-way ANOVA was used to compare the differences between more than two sample groups with the students' learning styles. Therefore, with statistically significant differences, the test for discriminating in pairs by LSD.

Research results

Most of the respondents were female, accounting for 71.78%, and 28.22% were male, studying early childhood education. The field of physical education and sports science accounted for 47.24%, and most of them were in the second year of study, accounting for 33.13%, followed by the first year of study, accounting for 31.29 per cent, were in the second-year level, accounting for 33.13%. 3rd year accounted for 26.38%, and studying in Year 4, accounted for 9.20%.

Objective 1 to study the English language learning styles of students of the faculty of Education, North Bangkok University, it was found that the English learning styles of students of the Faculty of Education, North Bangkok University Overall, it was at a moderate level ($\bar{x}=3.49$, $SD=0.56$). The areas with the highest averages were: The participant style of learning was at a high level ($\bar{x}=3.74$, $SD=0.67$), followed by The learning style, Collaborative Style, which was at a high level ($\bar{x}=3.64$, $SD=0.61$), Dependent Style was at a high level ($\bar{x}=3.60$, $SD=0.56$). (Competitive Style) mean is moderate ($\bar{x}=3.41$, $SD=0.69$) independent style, mean is moderate ($\bar{x}=3.37$, $SD=0.62$), respectively, and mean style. minimal including the avoidant style, the mean was moderate ($\bar{x}=3.19$, $SD=0.74$) as shown in Table 1.

Table 1 The level of English learning style.

English learning style	\bar{x}	SD	Level
Independent Style	3.37	0.62	Moderate
Avoidant Style	3.19	0.74	Moderate
Collaborative Style	3.64	0.61	High
Dependent Style	3.60	0.56	High
Competitive Style	3.41	0.69	Moderate
Participant Style	3.74	0.67	High
Total	3.49	0.56	Moderate

Objective 2 was to compare the English language learning styles of students. Faculty of Education North Bangkok University, classified by gender, branch and year level, found that. Gender Students of different genders had English language learning styles, Independent Style, Avoidant Style, Collaborative Style, Dependent Style, Competitive Style and Participant Style. (Participant Style) is no different.

The major of the students studying in different fields There were no differences in English learning styles, Independent Style, Avoidant Style, Collaborative Style, Dependent Style, Competitive Style, and Participant Style. Same-year students with different year levels: There is an independent style of English learning, avoidant style, and cooperative (Collaborative Style, Dependent Style, Competitive Style, and Participant Style) were not different, as shown in Table 2.

Table 2 Comparison of English learning styles classified by personal status

English learning style	Gender		Major		Year class	
	t	p-value	F	p-value	F	p-value
1. Independent	0.789	0.431	1.202	0.274	1.519	0.212
2. Avoidance	0.927	0.355	0.331	0.566	0.229	0.876
3. Cooperative	-0.247	0.805	0.052	0.820	1.824	0.145
4. Dependent	-0.233	0.816	0.063	0.802	0.973	0.407
5. Competitive	0.543	0.588	0.679	0.411	1.391	0.248
6. Participative	-0.826	0.410	0.001	0.977	1.369	0.254

* Statistically significant level at .05

** Statistically significant level at .01

Discussion

English language learning style of students Faculty of Education North Bangkok University Overall, it was at a moderate level, consistent with Sanae Dechawong (2017), who studied undergraduate students' subject English learning style. The results revealed that, overall, the students used the English learning style at a moderate level, and Somporn Komaratat (2016) studied the learning style of the foreign language of students of the faculty of Arts Dhurakij Pundit University found that the learning style of foreign language students in the Faculty of Arts, Dhurakij Pundit University at the level middle as well. When considering each aspect, it was found that the students of the Faculty of Education at the University of North Bangkok used a participant style with a high average level first. Learning English is like this maybe because It is a learning style that students like. When attending classes, they are eager to learn about the subject matter they are learning. Like to do activities in class together with friends love the discussion in class learners with this behaviour Want to learn the subject content, therefore rarely miss classes, want to participate in teaching activities as much as possible (Grasha and Reichman, 1975) which is consistent with Wilailak Sereetrakul and Peerapat Chukiat (2017). The relationship between learning styles and personal factors of students: a case study of Krungthep Thonburi University. found that the results of the study found that The students used the participatory learning style the most, and in addition, the top three findings were as follows: Participatory, cooperative and dependent learning were also consistent with Satida Chokkhok Kraut's (2018) have studied the learning style of the students of the Faculty of Education Buriram Rajabhat University found that) the learning model of the students in the Faculty of Education, Buriram Rajabhat University, the top 3 are as follows: participative, cooperative, and dependent.

Student of the Faculty of Education North Bangkok University Using an avoidant learning style, the average was moderate. The last is like this maybe because This learning style is a learning style in which students are not keen on learning. Not interested in studying, does not want to do activities with friends and teachers in class, does not want to participate in teaching activities and is not interested in what is happening in the classroom. The goal is to study to complete the degree and get a degree. We do not think that the knowledge gained is essential. Not interested in the subject matter and, therefore, often miss class (Grasha and Reichman, 1975). Studying in this manner will affect academic success. Therefore, most students do not choose to use this learning style. This corresponds to which is in line with Wilailak Sereetrakul and Peerapat Chukiat's (2017) study on the relationship between learning styles and students' factors: a case study of Bangkok Thonburi University found that students used the most miniature avoidance learning style and also following Wattanaporn Pattanaphakdi and Patcharee Duangchan (2014), who studied the subject of learning styles of pharmacy students, Srinakharinwirot University found that the type that appeared the least in the students was avoidance.

The hypothesis testing results showed that students with different gender, field and year levels. There is an English language learning model. No different from the initial research results, it was found that the students' learning styles were participative, cooperative, and dependent on the top three. Learning English Students want to participate in teaching and learning, such as small group discussions. Conversation match or performing a fictitious role exchange of ideas and mutual abilities Collaboration with teachers and peer groups Working with others sees the teacher and classmates as a source of knowledge structure as a source of academic support and see the class as a place for social interactions (Grasha and Reiceman, 1975). Students also have group behaviours and the nature of the field or year. If the group has what influence? Students will also follow the group (Apinan Siriratanajit and Yuwanda Churak, 2013), so regardless of gender, field or year, everyone has the same learning style, which is consistent with Sirisuk Nakasenee. (2014), which said that students who study English from any field of study would use the form of learning a different language and also in accordance with Apinan Sirirattanajit and Yuwanda Churak (2013), who studied the subject Learning styles of students of the Faculty of Arts and Faculty of Education Hat Yai University found that undergraduate students Faculty of Arts and Education having different genders, grades, years and disciplines have different learning styles.

Feedback

Research Recommendations

Teachers should understand students' learning styles and develop teaching methods and learning activities based on their learning styles, particularly the group that chose the dependent learning style, which was ranked third and was considered the highest-ranking ever. This type of learner lacks initiative because they have little desire to learn and will only learn what is required or assigned to them and take orders or tell them what to do. They dislike thinking and experimenting. This group of students' learning must be managed by teachers. Capable of learning on their own and conducting independent research.

Suggestions for future research

1. Should study other learning styles such as Kolb's Learning Style Inventory (LSI), Felder-Silverman Learning Style Model, The Myers-Briggs Type Indicator and Carl G. Jung Theory etc. with more diverse samples.
2. Should study the relationship between teaching style and learning style.

3. Should study and compare English learning styles with students in different faculties in order to apply the results to prepare teaching and learning management that takes into account the differences of students studying in English courses.

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Research Management System Development

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Abstract

This research was about, a development of information system was an infrastructure that could support research and innovation organizations and institutions in Thailand. The purpose of this study was to develop The Research Management System that could support research personnel. Research related agencies to be an important research and innovation infrastructure for organizations or institutions. The researcher has carried out the design and development of the system by developing the system in the form of a web application.

The researcher evaluated the system. By testing the system to test the acceptance of the system (Acceptance Test) and using a questionnaire to assess the performance of the system. It uses 10 people at Rajapruk University involved in the research management system as a sample, both at the operational and administrative level. Conduct a test and answer the questionnaire to assess the performance of the system in 4 areas. 1) user interface (Average: 4.18, SD: 0.16) 2) system processing (Average: 4.21, SD: 0.29) 3) permissions and system security (Average: 4.07, SD: 0.06) 4) service that meets the needs of users (Average: 4.17, SD: 0.21). The results of evaluation from the 3 assessors in all 4 areas with the highest average is System processing which is at high level and the lowest average is Permissions and system security which is at high level.

Keywords: research management system

Background and statement of the problem

At present, Thailand has formulated the national research policy as a research and innovation strategic plan. Which has drafted a 20 years research and innovation strategy (2017-2036), to determine the direction of driving research and innovation in line with the Thailand 4.0 policy. Emphasis is placed on transforming the country's economic structure towards an innovation-driven economy. Research for development towards innovation is therefore an important part of driving this policy. The preparation of a 20-year research and innovation strategy focuses on various trends. in all dimensions that will develop into an important trend in the future This will bring about a major reform of the research and innovation system. Including changes in goals, directions, management and the country's research and innovation budgeting system. (National Science Technology and Innovation Policy Office, 2017)

The 20-year research and innovation strategy defines the vision "Thailand uses research and innovation as a national power. To step into a developed country within 20 years with stability, prosperity and sustainability", which consists of 4 strategies. 1) Research and Innovation Strategies for Economic Security This is a strategy that focuses on developments in food, agriculture, biotechnology, medicine and logistics. to drive the economy by adding value to the country's core services and businesses. 2) Research and Innovation Strategies for Social and Environment Development This is a strategy that focuses on social development and quality of life, especially the transition to an aging society. Including the management of various natural resources

that affect the environment in the future and spreading prosperity to cover the whole country 3) Research and Innovation Strategies for Building Fundamentals of the Country which is a strategy that focuses on the development of basic knowledge for society and humans to create the population to have more knowledge to be ready for the development of academic work, research and innovation that will happen in the future. 4) Infrastructure and research innovation strategy in Thailand Strategic focus of infrastructure research and innovation in Thailand. The purpose of this study is to improve the systematic research, personnel and technology for the future development of the country. (National Science Technology and Innovation Policy Office, 2017)

Obviously, every step of Thailand's development strategy is very important, which is the development of the country through research and innovation. For this reason, research is necessary to drive together with other factors in an integrated manner. For sustainable development Research is therefore another important task in the country as a whole, which organizations, agencies, educational institutions both public and private different importance and set the mission to develop the organization along with the development of research and academic work especially institutions in higher education that emphasize the importance of research. In addition, each agency has its own policies and strategies to promote and support. The development of policy and practical research is obvious. At the organizational level, different institutions and academic institutions use different systems, processes and models according to their background. There are different problems and obstacles, such as personnel, knowledge and research experience. Researchers had no time to continue their work, insufficient research budget, insufficient research support and research nursing system. (Narong, 2018)

Analytical ideas in the research field: the research atmosphere in the Research Institute, the director of time and budget support. The development of knowledge and technology, facilities and activities contribute to research. It can be seen that the factors affecting the research work of the researchers. There are several components, each of which influences the conduct of research. It can be concluded that the support with any of the above factors will affect the research work of the researchers. Which the development of information systems with specific abilities It is something that can support researchers and creating an environment that is conducive to research operations. It also reduces the steps. Significantly reduce the barriers to conducting research of personnel in that organization. (Nakhon Sawan Rajabhat Institute, 2012)

With that said, it's important to create something that supports research. This research therefore came up with the idea of developing an information system. To be in line with the development strategy of infrastructure, personnel, and research and innovation systems. The development of information system is an infrastructure that can support research and innovation organizations and institutions in Thailand. The purpose of this study is to develop "The Research Management System" that can support research personnel. Research related agencies to be an important research and innovation infrastructure for organizations or institutions in the future. Manage relevant research work, such as research budget approval and follow-up research, research and article management, the management of relevant factors of quality assurance in the Institute Summary report at the organizational and institutional level. The purpose of this study is to develop a research management system that can support and motivate employees. In addition, it is an infrastructure for organizational or institutional development, ready to Thailand 4.0.

Objectives

1. To develop a research management system.
2. To study user satisfaction with research management system.

Related Research

1. Development of a research progress tracking system.

This research has conducted a study of the old system. Especially conducting research in educational institutions which found that each organization different processes and different forms according to their context. Most of them found that there were problems and obstacles affecting the research operations. There are many things. by the process of considering and approving the research grants in each section which is divided into 4 installments of research grant approval. All work will be sent directly to the research center and proceed to request approval according to the process. Tracking the progress of both the researcher's side and the supervisor must always go through the research center. In addition, there are many documents used each time, such as a contract for research funding, 1st-3rd Progress Report Papers.

In the research, it was found that in requesting budget approval there are many steps. All of which are powered by research agencies. Both in terms of receiving documents and forwarded to the relevant parties. At the same time, it must perform a follow-up function and progress reports to administrators and researchers, resulting in delays in follow-up. For this reason, the researcher has introduced a new system. By developing an information system to act as an intermediary in coordinating the necessary parts and to shorten the time in the research grant approval process.

In conclusion, in the process of conducting research, there are complex stages from the beginning to the last and involve multi-level personnel. As a result, it is difficult to track progress at each stage and rely on time. For this reason, information systems are very important. that allows for faster tracking of progress. In addition, personnel at the executive level have access to follow-up results and summarizing results in the overall more easily. Thus, it affects the management of research within the organization more efficiently as well. (Narong, 2018)

2. A study of factors affecting research work of professors Nakhon Sawan Rajabhat Institute, academic year 2012.

This research studied the factors affecting the research work of teachers. To know the factors that promote research work or factors that hinder including studying the needs of teachers that affect the research work of the university. Analytical ideas in the research field: the research atmosphere in the Research Institute, the director of time and budget support. The development of knowledge and technology, facilities and activities contribute to research. It can be seen that the factors affecting the research work of the researchers.

There are several components, each of which influences the conduct of research. It can be concluded that the support with any of the above factors will affect the research work of the researchers. Which the development of information systems with specific abilities It is something that can support researchers and creating an environment that is conducive to research operations. It also reduces the steps. Significantly reduce the barriers to conducting research of personnel in that organization. (Nakhon Sawan Rajabhat Institute, 2012)

Research Methodology

Population and sample

The researcher selected a sample group. Purposive Sampling to allow data collection of satisfaction assessment for system acceptance in accordance with the prescribed research model and procedure. It uses 10 people at Rajapruk University involved in the research management system as a sample, both at the operational and administrative level. This sample have three groups including five researchers, three executive level personnel and two research support staffs.

Analysis and design of the development process

Research Management System According to the system development life cycle (SDLC) model. The model is a clear framework structure, so that the system can solve problems and meet the needs of users. Effective and productive operation.

In the study of the old system by collecting information from relevant personnel. The researcher found that in order to obtain research approval before conducting research, it is necessary to do so in a documented form, which is more flexible than operating through the system. For this reason, in the budget approval process, the developed system will support operations only in the part of budget approval follow-up. Requesting for research project approval still uses the same review process as required by the research center.

In the part of tracking research progress after the budget is approved. The new system will come to support by developing an information system to act as an intermediary in coordinating the necessary parts and to shorten the time in the process of tracking research progress in different phases. As for the evaluation and summary of research results of the existing system, it must be operated by the research center, who remember to summarize various reports to the management and send to the faculty and branch. However, the new system has developed information systems in this section. to facilitate the collection of various information and present reports through the system. The executives can view the summary of various reports directly through the system. This will reduce the workload of the research center.

In the analysis of the system, the researcher presented the results of the system analysis using the Use case diagram as shown in Figure 1 and editor part shown in Figure 2.

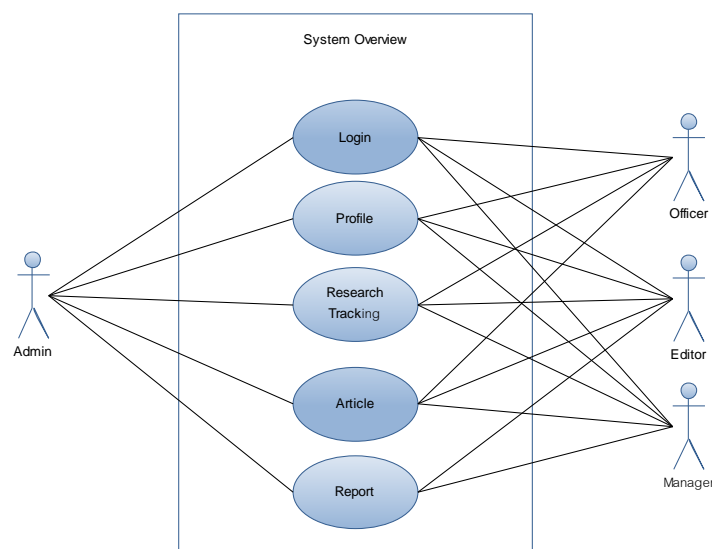


Figure 1 Overview of research management system.

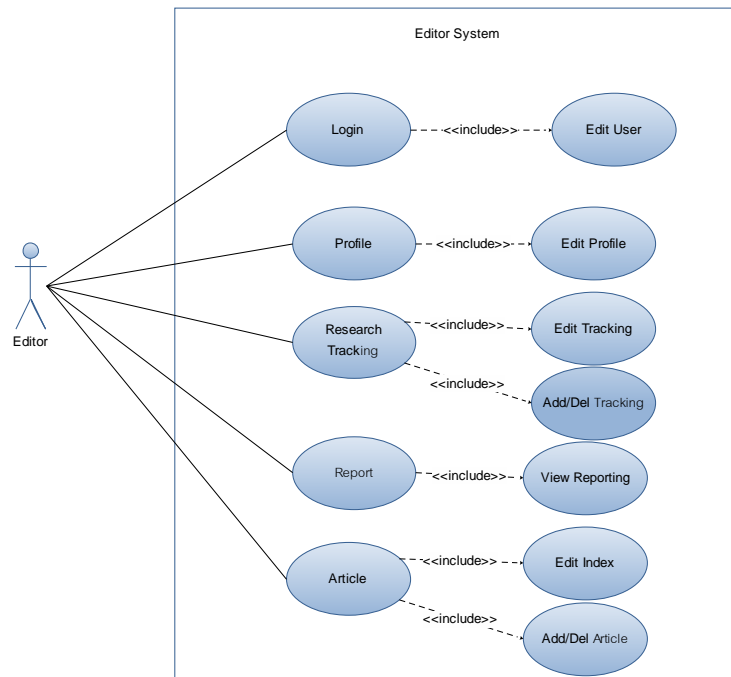


Figure 2 The work of the research center staff (Editor).

In the design of the system, the researcher presented with a Sequence Diagram classified by key activities and activities that happen to users at each level. Example of editor activities shown in Figure 3.

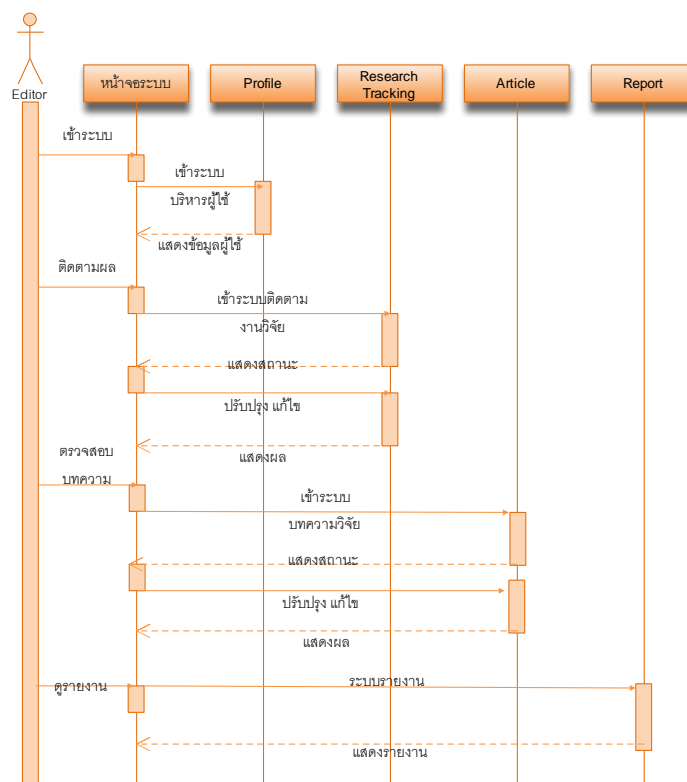


Figure 3 Sequence diagram of the work of the editor (Editor).

The staff of the research center can access all parts of the system and modify, add and delete the list of information related to the system. But cannot change level of user. If an error occurs, the user must contact the administrator.

Research Results

Performance

The researcher has carried out the design and development of the system by developing the system in the form of a web application, which shows the results of the development of the research management system as shown in the picture.

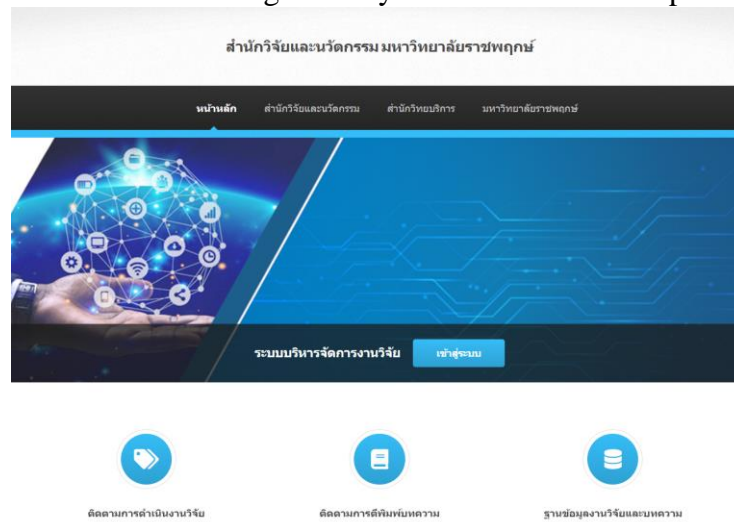


Figure 4 Main page

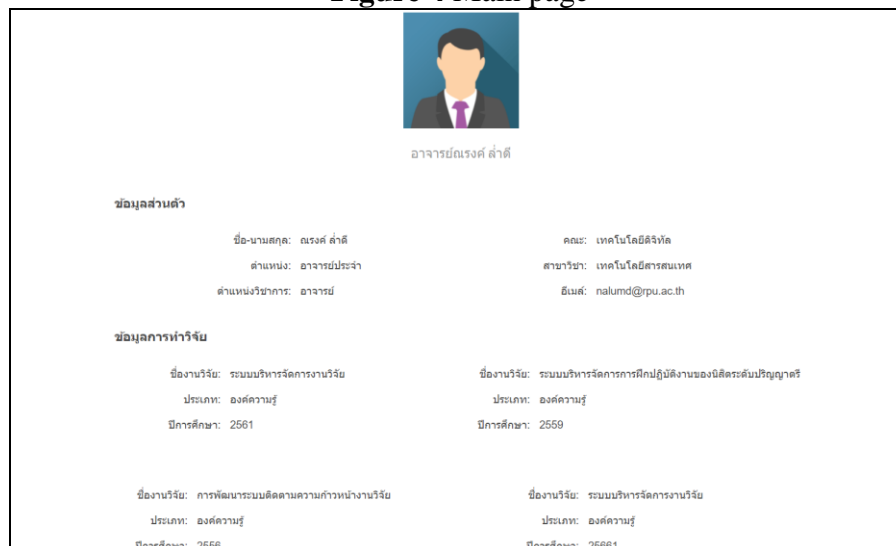


Figure 5 Profile page

In the use of users at the staff level which is a user related to various information within the research center especially. The information in the field of research operations from the start of budget approval, make a research contract ,monitor progress at each time interval within the time frame set forth in the research project. Including the management of the researcher's data. Shown in Figure 6.

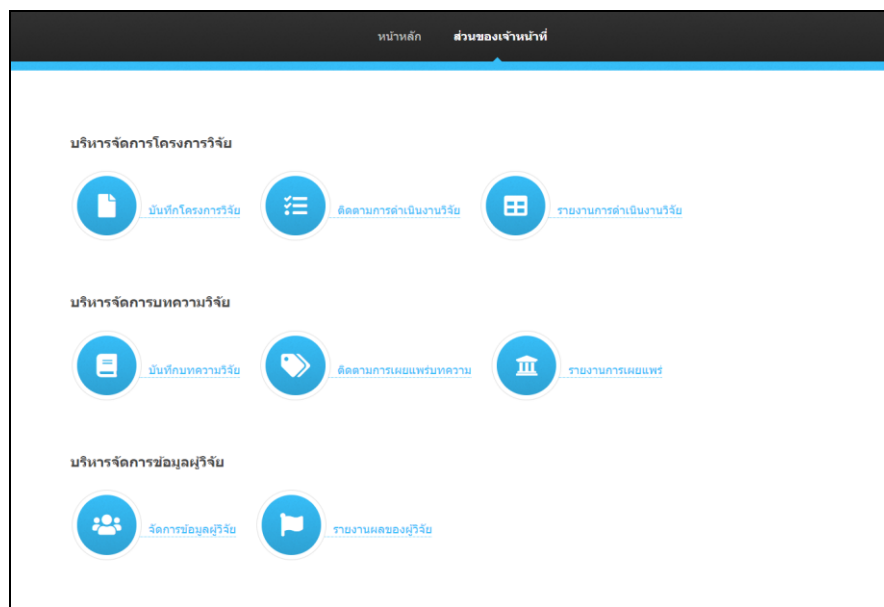


Figure 6 Editor Menu page

Researchers can conduct further research through approved and appropriately formatted research contracts. In this study, the staff will use the data in the system of mechanical recording research. Shown in Figure 7.

The screenshot shows a web interface titled 'ระบบบริหารจัดการงานวิจัย'. The navigation bar includes 'หน้าหลัก', 'ข้อมูลผู้วิจัย', 'ระบบติดตามงานวิจัยและบทความ', 'รายงานและสรุปผลงานวิจัย', and 'เอกสารและแบบฟอร์ม'. A dropdown menu is open, showing options: 'แบบบันทึกโครงการวิจัย', 'แบบบันทึกบทความวิจัย', and 'แบบบันทึกความก้าวหน้างานวิจัย'. The main content area is titled 'บันทึกข้อมูลโครงการวิจัย' and contains a form with the following fields:

เลขที่สัญญา:	<input type="text" value="เลขที่สัญญา/2564"/>
ชื่องานวิจัย (ภาษาไทย):	<input type="text" value="ชื่อภาษาไทย"/>
ชื่องานวิจัย (ภาษาอังกฤษ):	<input type="text" value="ชื่อภาษาอังกฤษ"/>
ผู้วิจัย:(หัวหน้าทีม):	<input type="text" value="ชื่อ-นามสกุล"/>
ผู้วิจัย:(ลูกทีมคนแรก):	<input type="text" value="ชื่อ-นามสกุล"/>

Figure 7 Insert Research page

To add research data the staff can enter the researcher's identification code to increase the name of the researcher according to the number of members in the case

of a research team. The system will retrieve the name of the researcher according to the identification code. If the researcher is a new person, who does not have information in the database the staff will need to add new contacts to the system first.

User satisfaction study

The researcher evaluated the system. By testing the system to test the acceptance of the system (Acceptance Test) and using a questionnaire to assess the performance of the system, which defines the criteria according to the Likert's method. It consists of a qualitative rating scale and a 5-level quantitative rating scale, with scores assigned for each topic as appropriate and in the process of system acceptance testing. The researcher selected a sample group. Purposive Sampling to allow data collection of satisfaction assessment for system acceptance in accordance with the prescribed research model and procedure. It uses 10 people at Rajapruk University involved in the research management system as a sample, both at the operational and administrative level.

Conduct a test and answer the questionnaire to assess the performance of the system in 4 areas, 1) User interface 2) System processing 3) Permissions and system security 4) Service that meets the needs of users. System testing by a group of experts from the results of the evaluation of the system's performance by answering a questionnaire of 10 users from the 3 groups. Shown as group assessed an average and standard deviation (SD).

Table 1 Summary of the system assessment results from the researcher group in all 4 areas.

Assessment item	Satisfaction Level		
	average	SD	meaning
1. User interface	4.28	0.53	High
2. System processing	4.20	0.38	High
3. Permissions and system security	4.10	0.37	High
4. Service that meets the needs of users	4.40	0.53	High

From Table 1, the results of evaluation from the researcher groups in all 4 areas with the highest average is Service that meets the needs of users (Average: 4.40, SD: 0.53) which is at high level and the lowest average is Permissions and system security (Average: 4.10, SD: 0.37) which is at high level.

Table 2 Summary of the system assessment results from the executive group in all 4 areas.

Assessment item	Satisfaction Level		
	average	SD	meaning
1. User interface	4.26	0.54	High
2. System processing	3.92	0.34	Medium
3. Permissions and system security	4.10	0.47	High
4. Service that meets the needs of users	4.10	0.47	High

From Table 2, the results of evaluation from the executive groups in all 4 areas with the highest average is User interface (Average: 4.26, SD: 0.54) which is at high

level and the lowest average is System processing (Average: 3.92, SD: 0.34) which is at medium level.

Table 3 Summary of the system assessment results from the staff group in all 4 areas.

Assessment item	Satisfaction Level		
	average	SD	meaning
1. User interface	4.00	0.56	High
2. System processing	4.50	0.38	Excellent
3. Permissions and system security	4.00	0.56	High
4. Service that meets the needs of users	4.00	0.56	High

From Table 3, the results of evaluation from the staff groups in all 4 areas with the highest average is System processing (Average: 4.50, SD: 0.38) which is at excellent level and not have the lowest average.

System assessment results from 3 groups of assessors in all 4 area, shown in Table 4.

Table 4 Summary of the system assessment results from the 3 assessors in all 4 areas.

Assessment item	Satisfaction Level				
	researcher	executive	staff	average	meaning
1. User interface	4.28	4.26	4.00	4.18	High
2. System processing	4.20	3.92	4.50	4.21	High
3. Permissions and system security	4.10	4.10	4.00	4.07	High
4. Service that meets the needs of users	4.40	4.10	4.00	4.17	High

From Table 4, the results of evaluation from the 3 assessors in all 4 areas with the highest average is System processing which is at high level and the lowest average is Permissions and system security which is at high level.

Discussions

Research management system it is a tool developed as a web application, by focusing on supporting the work of personnel both researchers, executives and staff of the research center or related agencies. To track the status of the research project both in the initial stage of project approval progress reporting disbursement of research funds Including a summary of results in the form of a report on the conduct of research projects by segment.

The researcher developed the system and tested the working process of the system (System Testing). After that, the acceptance test was performed, by testing the system, by allowing experts to assess the efficiency of the system in various fields. The researcher has summarized the results of the system development as follows.

1. Evaluation of the user interface, it was found that most of the assessment results were at a high level. Both in terms of use the data visualization is in an easy-to-understand format and has a good level of beauty because the display is clear and managing the usage in each group Observable and easily accessible.

2. System Processing Assessment, it was found that most of the assessment results were at high level. This is because users at each level can modify their personal data according to their level of permission. On the part of the staff the evaluation results are at excellent level. Because those who can view the summary of the research report divided by departments by management level. This is a good support for the overall information of the agency.

But in the aspect of the management, it was found that the display of the information was still incomplete as required and data scrutiny for senior management is still limited. Therefore, the evaluation results of this part are at medium level.

3. Permissions and System Security Assessment, it was found that the evaluation results were at a good level. Both in the authentication section access to user data at each level including the security of user data by assigning rights to only executives and executives at each level have limited access to information based on their management level only. As a result, the overall information security is at high level.

4. Assessment of services that meet user needs, it was found that the evaluation results were at a good level. Both in the presentation of basic information. User information display related to conducting research projects and a summary of research results. It was found that the basic information presented to the user was complete and cover important information. However, the data in the report were all very relevant to the needs of the users in the researcher group, because the data has various historical records fully. As a result, the assessment in this topic has high level of satisfaction.

The research atmosphere in the Research Institute, the director of time and budget support. The development of knowledge and technology, facilities and activities contribute to research. It can be seen that the factors affecting the research work of the researchers. There are several components, each of which influences the conduct of research. (Nakhon Sawan Rajabhat Institute, 2012) It is a tool developed as a web application. By focusing on the follow-up of the students' practice, which students, teachers, staff, administrators and supervisors can monitor the status of the practice implementation. Both in the initial stage of filing an application for approval to practice practice monitoring results Recording the results of the practice supervision evaluation and follow-up on the results of the preparation of the practice report which helps support students and related personnel can follow up more conveniently. (Narong, 2021).

From the results of the above research summary and this research It was found that technological tools can support research operations. Especially to track progress follow-up on research processes and reduce the burden of personnel in various departments. Affects a good atmosphere for conducting research under an environment with a system to support researchers. This made the satisfaction of using the research management system at a high level.

Recommendations

This research should develop the system to be further developed in other platforms such as Mobile platform and should allow the system to notify users through various channels such as e-mail etc, by automatic notification. To reduce the process of direct follow-up operations of the staff and increase efficiency in research tracking.

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Chinese and Thai consumer: A Cross-Cultural Difference on Attitude towards mobile SMS Advertisement

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Abstract

Mobile technologies imply many opportunities for marketing, in particular a direct communication with consumers without time or location barriers. However, some aspects of mobile marketing such as mobile advertising still require further research. The cross cultural differences are considered as a factor that may impact consumer's perception and behaviors. Consumer attitudes toward mobile SMS advertising are an important issue, but little is known about the role of cross cultural differences in attitude formation. Consumer attitudes toward mobile SMS advertising may therefore differ across countries.

This research investigates the different on attitudes of consumers in China and Thai. The online questionnaire distributed in China and Thailand. The result indicates that entertainment, credibility and permission have same impact on attitudes toward mobile SMS advertisement in both Chinese and Thai respondents. While irritation and informativeness has shown the difference across culture.

The target group for this research is Thai and Chinese consumer who interact with mobile phone SMS and internet frequently. This research will collect 500 questionnaires divided into 250 Thai consumer and 250 Chinese consumer. The questionnaire will be made by Google Form and distribute through Thai and China social networking system.

The researcher going to use multiple regression statistics on automated software as the main calculation platform. All of the respondent's questionnaire will be analyzed through SPSS.

Keywords: SMS advertisement, cross-cultural difference, consumer attitudes

Introduction

The emerging of technology creates advertising opportunities and challenges. Growing on mobile phone technologies also adding more channels for advertiser to reach their target customer. Mobile phones increase the accessibility, frequency and speed of communication through which timely mobile ads can be delivered to customer based on their demographic characteristic and geographic information. Advertising message are most effective when they are delivered to the customer at the time and place in which some need in salient. As short message service (SMS) or text messaging is the most widely used mobile application, marketers have already integrated it into the media mix as one form of direct marketing (Aslam, Batool, & Zia, 2016). Worldwide, more than 350 billion text messages (or SMS) are exchanged across the world's mobile networks every month, with more than 15% of these being classified as commercial or marketing messages (Amin, Amin, & Patel, 2011). The industry studies showed that delivering permission-based advertising alerts to mobile phones captures consumer's attention, drives response actions and builds brand awareness (Smutkupt, Krairit, & Ba Khang, 2012)

Asian consumers are highly interested in wireless advertising and they embrace SMS technology. SMS marketing in Thailand has been growing significantly, thanks to the popularity of the application itself and the high penetration of mobile phones. However, its effectiveness is still unclear as many firms use text message advertising only because it is a convenient medium, without considering consumer permission (Smutkupt, Krairit, & Ba Khang, 2012). This is mainly due to the fact that anti-spam regulation in Thailand has not yet been implemented. In China, SMS has grown rapidly, penetration reached 78% in 2013 when 20 billion text messages were sent, more than either letters or e-mails together (Zhang & Li, 2012).

The public attitude toward advertising has been a focus of attention for a long time. Although some earlier literature reported positive attitudes toward advertising, most of the more recent researchers have found that consumers generally have negative attitudes toward ads. Moreover, the prior research indicated that consumers have negative attitudes towards ads. At the same time, Internet advertising seems to generate positive consumer attitudes (Khan & Siddiqui, 2013). These show some evidence that there are different attitudes towards different forms of advertising. This is because internet advertising is often thought to be informative and entertaining. Given the difference between consumer responses to general advertising and to advertising over the internet, it is unclear how consumers feel about advertising messages on their mobile phone and how their attitudes affect their behavior (Aslam, Batool, & Zia, 2016).

The literatures on cross cultural differences between consumers' attitudes toward advertising also show differences between cultures. As most Asians have a natural playfulness, providing games and prizes via text messaging (SMS) yield high participation (Ahmed, Vveinhardt, & Streimikiene, 2017).

In Japan, games-on-mobile advertising, ringing tones advertisement and other entertainment contents advertising are standard in their mobile phones (Sinkovics, Pezderka, & Haghirian, 2012). However, in the research of (Blanco, Blasco, & Azorin, 2010) using online surveys on European respondents has indicated that people think that mobile advertising is boring and it is less entertainment than other advertising media. Additionally, a survey in Jordan, which investigated consumers' attitudes towards SMS advertising via mobile devices, has indicated that informativeness and credibility of SMS advertisement are the two main aspects that are important to Jordanian consumers (Zabadi, Shura, & Elsayed, 2012). While a research in Europe, studied on entertainment and informativeness as precursory factors of successful mobile advertising messages, using 429 Spanish and English-speaking mobile users as participants, has suggested that European mobile users perceive a low level of informativeness in mobile advertisement and do not consider that mobile advertising provides the information they need (Blanco, Blasco, & Azorin, 2010).

This consideration leads to the research motivation of this paper. To gain insights into the question whether consumers' attitudes toward mobile marketing activities differ between Chinese and Thai consumers using Chinese consumers and Thai consumers as samples. This research summarized in this paper investigated the cross cultural differences of consumer attitude in respect to SMS-based mobile advertising. To address this research goal in one particular context of mobile marketing, we focus on mobile advertising (i.e. advertising via mobile devices). Our research model is based on findings from research on SMS-based advertising. It is validated in two different countries, China and Thailand. The investigation is based on consumer surveys in these two countries.

Objectives

1. To identify key factors that explain the effectiveness of SMS advertisement between Chinese and Thai consumer.
2. To investigate the relation between attitudes and permission of consumers in China and Thailand.

Methods

The research will mainly focus on SMS-Advertising and Attitude. While also use “Factors affecting attitude toward SMS advertising model” (Tsang, Ho, & Liang, 2004) as the base model for making further development to evaluate sample’s attitudes. The model has indicated the dependent factors as “1.) Entertainment”, “2.) Informativeness”, “3.) Irritation”, “4.) Credibility” and independent factor as “Customer’s Attitude”, “Permission”.

Research Sampling

The target group for this research is Thai and Chinese consumer who interact with mobile phone SMS and internet frequently. This research will collect 500 questionnaires divided into 250 Thai consumer and 250 Chinese consumer. The questionnaire will be made by Google Form and distribute through Thai and China social networking system.

Time Limitation

The time for this research is 1 year, which start in October 2019 and end in October 2020.

Area Limitation

The researcher will mainly focus on 2 areas which are Thailand and Republic of China. Because population in Thailand and Republic of China are the main target group for this research.

Research Methods

Determining Sample Size

The sample of this research is calculated by using Taro Yamane (Yamane, 1973) formula with 95% confidence level. According to 69,430,000 persons as a population in Thailand (Thailand National Statistical Office, 2019) combine with 1,393,000,000 persons as a population in Republic of China (United States Census Bureau, 2019). Altogether the whole population of this research will equal 1,462,000,000 persons. After calculated the sample size by substituting the number into Yamane formula, the numbers of sample are 400 persons. In order to obtain reliable of data, researcher going to add 100 more persons as a buffer to sample size accorded Yamane formula to 500 persons.

Research Tools

The primary data in this research consist of data retrieved from an online questionnaire, where knowledge about attitude towards SMS mobile advertising was obtained. The target group for this research is Thai and Chinese consumer who interact with mobile phone SMS and internet frequently. This research collected 525 questionnaires divided into 270 Thai consumers and 255 Chinese consumers. The questionnaire provided answer choices of each question on five-point Likert scale format which included 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and

5= Strongly Agree. The target respondents of this study were mobile users, especially those who often interact with advertisements on mobile web sites and applications. The survey utilized a questionnaire designed to collect data regarding consumer attitudes, intention, and behaviour.

Multiple Regression Analysis: One of the main objectives of the research is to determine the differences on factors of attitudes toward mobile advertising, and multiple linear regression is the chosen technique. It also determines the percentages of model fit, and total variance is explained. The measure of items is 5-likert scales, which meet the requirement of scale for this analysis.

Conceptual Model

According to Tsang, Ho, & Liang (2004) model, we decided to focus on attitudes part of the model. While the modification added on the conceptual model is exploring moderation impact of cross cultural differences (See Figure 1).

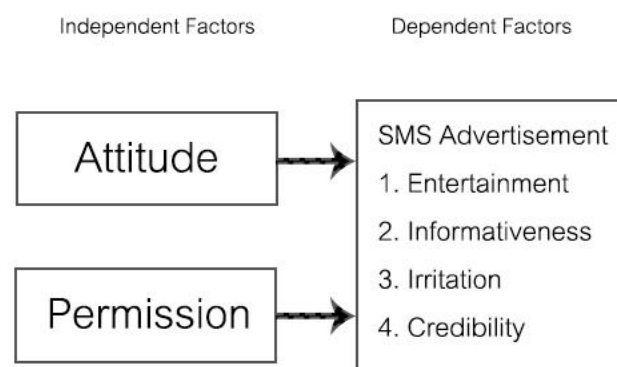


Figure 1 Cross-Cultural Differences toward SMS mobile Advertising Framework
Source: Adapted from Tsang, Ho, & Liang (2004))

From the existing literature we can expect the different of attitudes between Thai and Chinese consumer on Entertainment and Informativeness aspects. While we do not expect the different on Irritation, Credibility and Permission aspects because there are preliminary evidences that these factors are equally important across cultures.

Results

Data reliability

Cronbach’s alpha was used to test the internal consistency of the scales. A score of .70 or higher was considered acceptable for inclusion, while a score above .95 could indicate there were duplicate items in the scale (Bryman and Bell, 2015). A pilot test was conducted once the researcher had collected 30 questionnaires (the first 15 questionnaires each from Thai and Chinese participants). Results are shown in Table 1. Alpha coefficients for the variables range from 0.822 (for Informativeness) to 0.919 (for Attitude). This indicates that internal consistency for all scales fell within the acceptable range.

Construct	Cronbach's Alpha Score
Entertainment	0.861
Informativeness	0.822
Irritation	0.888
Credibility	0.902
Permission	0.864
Attitude	0.919

Table 1: Summary of alpha coefficients

The effect of Attitudes

	H1 (Thai)	H2 (Chinese)	H3 (Thai)	H4 (Chinese)
<i>Constant</i>	1.121***	1.093***	1.047***	1.267***
<i>Attitude</i>	.733***	.725***	.718***	.678***
<i>R</i>	.708	.746	.679	.746
<i>R²</i>	.502	.557	.461	.557
<i>Adj. R²</i>	.500	.555	.459	.555
<i>F (p)</i>	269.618***	317.502***	229.421***	317.786***
<i>Dependent Variable: Entertainment</i> * p < .05 ** p < .01 *** p < .001			<i>Dependent Variable: Informativeness</i> * p < .05 ** p < .01 *** p < .001	
			<i>Dependent Variable: Informativeness</i> * p < .05 ** p < .01 *** p < .001	

	H5 (Thai)	H6 (Chinese)	H7 (Thai)	H8 (Chinese)
<i>Constant</i>	5.222***	5.429***	.559*	.842***
<i>Attitude</i>	-.785***	-.800***	.827***	.776***
<i>R</i>	.648	.810	.687	.812
<i>R²</i>	.420	.656	.472	.659
<i>Adj. R²</i>	.418	.654	.470	.658
<i>F (p)</i>	194.181***	481.913***	239.244***	488.768***
<i>Dependent Variable: Irritation</i> * p < .05 ** p < .01 *** p < .001			<i>Dependent Variable: Credibility</i> * p < .05 ** p < .01 *** p < .001	

The findings (H1-H8) showed that attitudes to SMS advertising had a significant positive effect on entertainment, informativeness and credibility, and a negative effect on irritation. These effects were similar between the Thai and Chinese participants, with the main difference being that the results were more predictive in the Chinese test than the Thai test. However, the beta coefficients were typically similar in size. This indicates that the attitudes of Thai and Chinese consumers toward SMS advertising have similar effects on the perceptions of it.

The literature strongly supported the relationship of attitude towards the four perceptions of SMS. This included studies on the relationship between attitude and entertainment (Ahmed, et al., 2017; Blanco, et al., 2010; Funk, 2004). However, as Blanco, et al. (2010) notes, this does not mean that consumers view SMS advertising as interesting or entertaining – in fact, European consumers surveyed by the authors viewed it as the least interesting form of advertising. There were also supporting

studies about the relationship of attitude and informativeness, which have generally shown that there is a relationship between these variables (Blanco, et al., 2010; Tsang, et al., 2004; Zabadi, et al., 2012; Zhang & Li, 2012). Furthermore, studies have also shown a negative relationship between attitudes and irritation, in which higher levels of irritation were correlated with more negative attitudes toward SMS advertising (Bart, et al., 2014; Blanco, et al., 2010; Hanssens, et al., 2014; Tsang, et al., 2014). Therefore, these findings support that irritation is negatively related to attitudes toward SMS advertising. This finding is particularly important for marketers, who may face higher levels of irritation with SMS marketing. Finally, the positive link between attitudes and credibility of SMS advertising was also supported by several previous studies on SMS advertising (Smutkupt, et al., 2012; Tsang, et al., 2014). Therefore, this study has contributed by showing that existing attitudes toward SMS advertising can have an effect on the perceptions of SMS advertising's entertainment value, informativeness, credibility and irritation. However, it should not be assumed that these would all be highly positive. However, as Blanco, et al. (2010) and Smutkupt, et al. (2012) showed, there are differences between different countries and cultures. These differences are discussed in the final section of the chapter.

The effect of Permission

	H9 (Thai)	H10 (Chinese)	H11 (Thai)	H12 (Chinese)
<i>Constant</i>	2.057***	.990***	1.061***	1.079***
<i>Attitude</i>	.511***	.747***	.718***	.718***
<i>R</i>	.555	.757	.764	.779
<i>R²</i>	.308	.572	.583	.606
<i>Adj. R²</i>	.305	.571	.581	.605
<i>F (p)</i>	119.306***	338.554***	374.753***	389.417***
<i>Dependent Variable: Entertainment</i> * p < .05 ** p < .01 *** p < .001			<i>Dependent Variable: Informativeness</i> * p < .05 ** p < .01 *** p < .001	

	H13 (Thai)	H14 (Chinese)	H15 (Thai)	H16 (Chinese)
<i>Constant</i>	4.650***	5.370***	1.173***	.719
<i>Attitude</i>	-.651***	-.826***	.683***	.801
<i>R</i>	.604	.823	.638	.826
<i>R²</i>	.365	.677	.407	.682
<i>Adj. R²</i>	.363	.675	.405	.681
<i>F (p)</i>	154.154***	529.422***	183.802***	543.640***
<i>Dependent Variable: Irritation</i> * p < .05 ** p < .01 *** p < .001			<i>Dependent Variable: Credibility</i> * p < .05 ** p < .01 *** p < .001	

The findings (H9-H16) also showed that permission for SMS advertising had a significant positive effect on entertainment, informativeness and credibility and a negative effect on irritation. Results were broadly similar between Thai and Chinese participants, though as with Attitudes, the Chinese response to Permission was stronger and more predictable than the Thai response.

The findings of this study are generally supported in the literature. Tsang, et al. (2004) found that permission was a significant factor that influenced acceptance of and attitudes toward SMS marketing. Several other studies have shown that prior permission is a significant factor in SMS advertising attitudes (Ahmed, 2017; Khan & Siddiqui, 2013; Tsang, et al., 2004). Therefore, it was expected that permission to send SMS advertising would influence the perceptions and attitudes toward SMS advertising, which was demonstrated. The novelty of this research is that it tested the effect on specific attitudes, which had mostly only been tested in the context of attitudes (discussed above). This extends, for example, Bart, et al.'s (2014) findings that consumer attitudes toward SMS are negative correlated with irritability, demonstrating that permission has the same effect on consumers. It also adds to the findings of Ahmed, et al. (2017) that attitudes toward SMS advertising can influence perceptions of entertainment, Zabadi, et al. (2012) and Tsang, et al.'s (2004) studies on attitudes toward SMS advertising and informativeness, and Smutkupt, et al. (2012) and Tsang, et al. (2004) on attitudes and credibility. Adding to all of these relationships, the study has shown that permission to receive SMS advertising can have a positive effect on attitudes (although this is not typically as strong as the effect of attitudes themselves). This is a useful contribution to the literature since it shows that it is not only generic attitudes toward SMS that influence perceptions, but also more specific aspects like whether the consumer has granted permission to advertise via SMS.

Discussion

Differences between Chinese and Thai consumers

Overall, there were not many differences between the Chinese and Thai consumers. In tests of H1 to H8, the coefficients were similar, though the Chinese models did tend to be more strongly predictive than the Thai models. Chinese consumers did tend to respond more strongly to Permission than Thai consumers did, with higher coefficients and more strongly predictive models. However, the direction of all relationships was similar. Therefore, it seems that the response of Chinese consumers is more predictable and they are more sensitive to permission to send SMS, but there is not a strong difference between the groups. The differences that do occur could be because of cultural differences, for example in the use of appeals and information cues in advertising (Bart, et al., 2014). It could also be because of more negative attitudes toward mobile advertising, which have been found in earlier studies in China (Zhang & Li, 2012). Therefore, there are some possible reasons why there may be slight differences between Chinese and Thai consumers, which reflect minor differences in perception of mobile advertising. This could be rooted, for example, in past use of SMS advertising in the country or differences in institutional control of the advertising channel, which could increase or decrease the amount of spam or other undesirable communications. Whether there are differences in cultural perception of SMS advertising, how it is used and so on would be an interesting topic for further study.

Conclusion

The aim of this research was to investigate consumer attitudes to SMS advertising in Thai and Chinese consumer populations. The objectives included identifying key factors that explain effectiveness of SMS advertising for Thai and Chinese consumers and investigating differences in attitudes between Thai and

Chinese consumers. To achieve the objectives, the researcher conducted a consumer survey. The survey sampled 525 consumers (including 270 Thai consumers and 255 Chinese consumers). It investigated attitudes about SMS advertising, specific perceptions including entertainment, informativeness, irritation and credibility, and permission to send SMS advertising.

The behavioral analysis showed that both Thai and Chinese consumers were ambivalent about SMS advertising. They preferred not to receive much of it and did not typically read it fully or immediately. However, the over all perceptions of SMS advertising were positive. Thus, the perception of SMS was neither fully negative nor fully positive. Instead, it was nuanced and, while broadly positive, dependent on the consumer's own preferences. The hypotheses of the study tested attitudes and permission to send SMS advertising as predictors of entertainment, informativeness, irritation and credibility respectively. The findings showed that attitudes had a positive effect on the entertainment value, informativeness, and credibility of SMS advertising. Attitudes also had a negative effect on irritation, meaning that the most positive a consumer's attitude was toward SMS, the less annoying they were likely to find it. Tests of permission for receiving SMS showed that permission also had a positive effect on entertainment value, informativeness and credibility, and a negative effect on irritation. Comparing the results within Thai and Chinese samples showed that the overall effects were similar. However, Chinese consumers sometimes had a stronger and more predictable relationship between the dependent and independent variables than Thai consumers. This suggests that the responses of Chinese consumers are more consistent than those of Thai consumers. These differences were relatively minor, however, and the main direction of the relationships was similar, as was the effects size in most of the relationships. In conclusion, this research has tested the relationship of attitudes toward and permission for SMS advertising and perceptions like entertainment value, informativeness, credibility and irritation. It showed that there were significant relationships between these factors, meaning that attitudes and permission are likely to influence the overall perception of SMS advertising. This has some academic implications, as well as practical implications, which are discussed in the next section.

Suggestion

There are some recommendations for future research from this study. One of these recommendations is that consumer experiments could be used to determine the behavioral responses to different types of SMS advertisements (for example, funny or informative advertisements). This type of experiment would offer stronger evidence to consumer responses to different types of advertisements than the current survey, which was limited in what it could address. Another opportunity for more research is cross-cultural investigation of consumer attitudes and perceptions of SMS advertising, potentially including more than two countries. Most previous research has focused on only a single country or at most two countries, which means there is limited evidence for understanding cultural differences. By conducting a study that statistically compares consumer responses, it would be possible to generate more information about the differences between cultures in acceptance of SMS advertising. A multi-method study could also compared institutional and marketing environments to provide a better explanation.

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Private Vocational Education Administrator Skills in the Digital Era

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Abstract

Administrators of private vocational colleges in the digital age era need to develop management skills under current and future technological changes to cope with the challenges to be prepared and to design appropriate learning management in which technology plays a role in educational management as well as in line with the goals of educational management so that learners have both the knowledge and the necessary skills by encouraging teachers to know how to make use of technology, make a difference and promote creativity, encourage teachers and students to co-create innovations in sustainable learning until the emergence of new knowledge.

The skills of administrators of private vocational colleges in the digital era to promote successful management of educational colleges to achieve the goals contains 4 skills as follows: 1) Problem-solving skill, 2) Self-management skills, 3) Skills in using and developing technology (Technology Use and Development) and 4) Skills in working with others (Working with People) to equip administrators, the key persons in the development of private vocational colleges to have the quality to be in line with an international level under the needs of the labor market in driving, promoting the development of the country's economy.

Keywords: executive skills, private vocational colleges, digital era

Introduction

When it comes to the “21 century,” we are living in a time of rapid change in an environment where countries are expected to change. There is an increasing interconnectedness in many aspects e.g., economy, culture, lifestyle, as well as the education system, which needs to be adapted as well. To be able to meet the needs of youth, society, and the labor market now and in the future, the industry needs workers who need to keep up with the world, with special skills in information technology with the changes that occur. Thus, workers must be empowered as a key to making the country competitive and progressive in the 21st century. Both public and private sectors must jointly develop technology and develop labor skills. “Skills of the 21” is a term that is becoming discussed more often, not just because we are entering a new century, but what the classrooms have given us in the last century is no longer enough. Moving from an old industrial revolutionary world to a digital world, the world has changed the demands of the labor market. Routine-work skills may not be desirable because computer technology can be replaced instead. According to research by the World Economic Forum (WEF), a much-needed skill in the 21 century that was

noticeably added compared to the previous world was “social & emotional skills.” The data was based on a trend analysis of occupations over the past 20 years and found that there were more and more occupations requiring social skills (World Economic Forum, 2021).

According to the World Economic Forum, the forecasts for the next five years are released. The working world will face “double disruption” from both COVID and automation as a replacement for hiring people. There is a higher chance of losing a job. It was found that more than 50% of workers lack the skills needed for 2025, which contain four groups of skills: critical thinking skills, people skills, technology skills, and the one that has been added this year, self-management skills, (the World Economic Forum, 2021). At the same time, private vocational education institutions have a major role to play in managing education, as specified in the Vocational Education Act 2008, Section 6, which defines “Vocational Education Management and Vocational Training as a professional education management for the production and development of the workforce in the field of skill level, technical level, and technological level, as well as to enhance professional education by conforming to the National Economic and Social Development Plan, as well as the National Education Plan, so that students can develop practical knowledge under the needs of the labor market and have the capacity to be able to pursue careers as practitioners or self-employed professionals” which are as follows:

Policy 1: To create/produce a vocational workforce to meet the needs of the labor market.

Policy 2: Improve the quantity of Vocational Education Teachers and Personnel

Policy 3: Improve the quality of new schools and learning resources

Policy 4: Improving the quality of management to meet international standards (Office of the Vocational Education Commission, 2012)

Rakkiatwong (2020) claimed that Thailand's vocational education reform on the problem of the Thai vocational education system is ignored, as a result, low quality of education. This causes image problems that are important to all stakeholders as follows:

1. Vocational Students

Many lack career opportunities because poor quality education does not meet market demand. This causes comparisons with those with bachelor's degrees, allowing vocational graduates to progress less in their careers. This affects the social promotion prospects of low-income families, who send their children to vocational education.

2. The business sector faces a shortage of skilled workers. As a result, they hire unskilled workers whose skills do not meet the need to train in the establishment itself. This is why the business has a higher operating cost than it should be, and competitiveness deteriorates.

3. The education system has higher costs while the returns from the education system are lower because students must go to university. After all, vocational education cannot guarantee a good job. What we tend to see as “values” can be “necessity.” This phenomenon can result in two subsequent problems. First, the

overall education system is costly because the university's unit cost is higher than that of vocational education, and second, investing in education offers lower returns as a whole, since university education tends to focus on academic knowledge, which is less useful if graduates do not pursue higher-level professions that require the knowledge they have learned (Rakkiatwong, 2021).

In line with Memorial Sangnimnul, Chairman of the Vocational Education Subcommittee in the Independent Committee for Education Reform (KACC), Thailand has a large demand for vocational graduates, but there are 67% of vocational students at the vocational certificate level and about 700,000 higher vocational certificates (VOC). Of the total number of 700,000 people, 70% are in public schools and 30% are in private schools. At present, there are 67% of high-school learners, and 33% of vocational students. Increasing the proportion to reach 50% is still far.

Another interesting research conducted by Gündüz (2020) is worth noting. He conducted a qualitative study on the phenomenological method with 21 teachers from different branches. Drawing up on qualitative data, the problems in vocational skills training include a lack of materials, technological infrastructure issues, incompatibility of training programs with industry needs, inability to adapt to changing vocational skills, misguided vocational field selection, and educational system-school management issues.

In addition, there are many major problems in vocational management, namely 1) the ongoing shortage of teachers as they are not good at practice, so they cannot teach children to be good at practice, 2) the course does not match and does not meet the needs of entrepreneurs 3) shortage of modern materials and supplies 4) bilateral education as there is only 14% of bilateral learners out of all vocational learners, lacking incentives for establishments to participate, 5) producing people that do not meet the needs of the labor market, and 6) vocational education management lacks a comprehensive process of creating people and building technology as there is no clear policy to promote investment in private vocational education management and poor vocational student image regarding students quarrel issue (Daily News. Unraveling Thai vocational education problems)

As Sukanya Somchoi (2018) mentioned, in the use of technology for school administrators contains of 5 areas, 1) having a vision: school administrators must be able to convey a vision together with the exchange of visions with other people to apply technology and technology integration to support changes in the organization to enhance the excellence of the organization, 2) create a culture of digital learning, in which school administrators must use digital innovation technology regularly as well as digital learning in the organization by supporting and encouraging all learners to access it, 3) professional excellence practices in which school administrators must provide a professional learning and innovation environment for students by empowering teachers and staff to manage learning using digital innovation technologies in the organization, by using information resources efficiently and effectively, and 5) citizenship in the digital age as school administrators must set a good example, support and encourage awareness of ethical issues as well as responsibility for what is relevant for the evolution of the culture of digital society. As a result of the current situation of private vocational colleges, the focus must be

placed on building a vocational education system and developing skilled technicians to prepare students for the profession, as predicted by the World Economic Forum. The working world will face a “double-disruption” of using automation to replace hiring people. This effect may make skilled workers who do not meet the changing market demands more likely to risk losing their jobs (Matichon Online, 2022). The spread of the COVID-19 pandemic has also affected the labor sector, with two important factors, first of all, the impact of state control measures and the impact of adaptation of the sector and employment. The second is the impact of sector adaptation and employment that comes as a concept called “New Normal” pushing workers to be well equipped in digital and technology, increase working skills to meet flexible employment, as well as connect the workforce-producing education sector to the industry.

Therefore, how can executives create skills in the 21 centuries, known as “skills”, of course, cannot be easily done through sitting lectures, because “skill” is not “knowledge”; it is something that takes time to build by constantly practicing through practical action. To make a reformed transition from the old to the new, sometimes it takes studying and learning from a successful prototype. The benefits of having a good role model, such as the success of a person, a model allowing us to see the world in new ways, helping us understand problems and solve them. Good qualities of a model person, such as someone is creative or who strives ambitiously for success or who is free to think. “as the new world, everything happens and changes rapidly, the success of people today comes from being an innovative leader and creating a turnaround change that has created something unprecedented for society and the world” (Chiaravanon, 2018).

Goals for School Management in the Digital Age (Serene Intramane, 2019: 356)

School administrators must set goals for school management in the digital age using information technology and information as follows:

1. School administrators must develop themselves to have vision, awareness, importance, and use IT to enhance the management of educational institutions and learners' learning, including people who use information and communication technology to manage learning in various dimensions.
2. School administrators must promote the development of teachers to have vision, awareness, importance, and skills in using digital technology to manage to learn and encourage learners to learn skills in the use of information and communication technology.
3. School administrators should increase their competitiveness, manage education, and improve the quality of education.
4. School administrators should encourage students to learn with modern methodology techniques using information and communication technology.
5. School administrators should create social opportunities to create social equality and create a trust for the learner and the community to improve the quality of learners as well as enhance the quality of education and quality of life for learners.

Executive skills, according to the World Economic Forum

The Future of Jobs report on future career trends and directions, as well as the skills needed within the year 2025, consists of 10 skills as follows:

1. Analytical thinking and innovation
2. Engaging learning and learning strategies
3. The ability to solve complex problems
4. Critical thinking and analysis
5. Original creative initiatives Unique
6. Leadership and Influence on Society
7. Ability to use Control, supervise technology
8. Technology design and programming capabilities
9. Stress management, flexibility, and handling situations
10. Reasoning, problem-solving and brainstorming

Thus, it is important to know what skills private vocational administrators need to manage private vocational education under technological changes and the covid-19 pandemic and how to inspire disruptors. The challenge to be aware of is the management. Regardless of whether schools and teachers are knowledgeable in time for change and how to take advantage of technology to manage the school to suit the changing context, the main goal of managing education in the digital age should therefore be to organize education for learners' knowledge with creativity (Somchoi, 2018).

Conclusion

Managing private vocational education in the digital age affects the modification of the method to keep pace with technology, which is constantly changing. The goal of managing is that learners can develop themselves to the fullest potential, the knowledge that is ready to change into the future. Therefore, the school must modify the management style of the education establishment in order to get respond to and design the appropriate learning management which includes inspiring teachers and learners to create innovations by learning. School administrators are important factors that affect the school's ability to improve the quality of education for students. Being an executive in the digital age requires an understanding of how to use technology to its advantage effectively and effectively. The private education executives must have 4 skills as follows:

1. Problem-solving skills

Because in the future, work will be more difficult and complex, the modern world needs executives with good thinking and decision-making skills, as well as being able to invent new ways to solve problems for private vocational education institutions. These skills are essential, consisting of 5 of these skills, 1) analytical thinking, 2) innovation skills 3) problem-solving skills 4) critical thinking and analysis skills 5th creative and new initiative skills, and 5) Reasoning, problem-solving, and ideation.

2. Self-management skills because

When vocational colleges face problems or changes as in 2020, every college faces a COVID-19 problem, they were required to cope with problems, as well as be able to deal with emotions and pressures, research more acquire knowledge to find solutions for themselves, and to adapt to changing situations. These are skills that should always be developed and practiced. The skills in this group are 1) active learning and learning strategies and 2) resilience, stress tolerance, and flexibility.

3. Technology Use and Development Skills

As every college becomes adaptive to the digital world, new digital tools and programs are indispensable: they may be data & AI technology, Cloud Computing, Digital Marketing & E-Commerce, Software Engineering or Product Development, design, and programming. The skills in this group are 1) technology use, monitoring, and control skills, and 2) Technology design & programming.

4. Working with People skills

Because in the future, the world will need an executive with an ideology and a goal to move the world forward. Modern executives need to be able to inspire and create a working society where everyone can participate and have common goals. The skill in this group is 1) Leadership & Social Influence.

It is suggested to blend both Innovative thinking skills and Technology Leadership as follows:

- 1) executives find their weaknesses (analyze your weaknesses),
- 2) set objectives with a timeline and expected result,
- 3) execute and
- 4) evaluate and improve (evaluation & improvement).

Developing these skills, they are required the potential of the school, teachers, and related personnel, readiness. It is a challenge for executives to have the skills of private vocational administrators in the digital age to manage schools in order to drive into schools in the digital age, in line with national policies and strategies for education, to restructure the organization and management methods appropriate for digital vocational education. This improves the management style to have the knowledge, skills, and digital capabilities. Promote and support equipment to support the development of digital vocational education in the use of digital education for learners, as well as reducing the redundancy of tasks, the cost-effective use of available resources results in efficiency and effectiveness.

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New Platform of Digital Marketing Management of Local Business in the Digital Economy Age

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Abstract

Local businesses in Thailand are community-based small enterprises. They make things to sell and create revenue for members of the community. They utilized from natural raw resources and local wisdom added value to the product. Local businesses can be strong, requires cooperation and participation of people in the communities. Now a new economic era with technological advancements, innovations, which are used as part of the manufacturing process to produce finished products and deliver local products to customers. However, they use digital marketing to run local businesses. When local businesses produce goods for sale, the marketing management is no less important than any other activities. This article aims to study the new platform of digital marketing management of local businesses in the digital economy age with innovation and modern technology that plays a role in marketing management so that local businesses can sell local products as well. Good marketing management will make local businesses successful and have the ability to compete effectively both in the present and in the future.

Keywords: marketing management, local business, digital economy

Introduction

Local businesses are small community businesses that play an important role in the country's economic development. Local businesses can be strong. It must be through cooperation or participation of people in the community to develop the business group of the community that they have established. Additional local business activities include production activities. Producing products and trading activities which are derived from raw materials from soil, water, forests, combined with local wisdom in that area for the survival of the business. Technology development and creativity taking into sustainability in both social and environmental aspects to enhance the development of the country from being "a country contract manufacturing" as "a country with innovative capabilities" by using the country's strengths such as social and cultural costs, natural resource costs and local wisdom. It is an important tool in building the capacity of the economy through the reform of the economy of Country. (National Science and Technology Development Agency, 2016). Now a day, information technology digital plays a huge role in today's business management, including production management, accounting management, financial management and marketing management. Most of the small and medium enterprises (SMEs) use digital technology and innovations in their operation. Wi-Fi and the Internet are used. It is a tool for searching news, watching movies, listening to music, searching for store information etc. It is therefore an interesting point that marketing

management of local businesses in the digital economy era. It is interesting that if local businesses do not adapt to external environmental that affect, it's hardly to keep a business alive in the digital economy age. They bring digital technology used to manage marketing activities. It is interested that if the local business does not adapt to the external environmental factors that affect it, it's hard to keep a business alive in this day and age.

The Marketing Evolution

Philip Kotler's marketing evolution began with Marketing 1.0, a product-centric industrial period. Many manufacturer produce products for sale, marketing strategy are 4P's including product, price, place and promotion. Entered the market in the Marketing 2.0 era when the production volume was higher than Marketing 1.0 era, many businesses are competition. Therefore, the 4C strategy is customer, cost, convenience, communication, focusing on customer needs. The product is placed in the market, and customers are identified and relationships are formed. The internet world has increased, as have numerous social media, as entered to the Marketing 3.0 era. Marketers may also use social media to find new ways to reach out to their consumers and improve their connections with them. (Kelly, Kerr & Drennan, 2010 as cited in Godey, Manthiou, Pederzoli, Rokka, Aiello, Donvito & Singh, 2016) Customers use mobile phones, tablets and the Internet. There is an increasing number of the population. Conducting electronic commerce (E-Commerce) and social responsibility activities (CSR), in the Marketing 4.0 era, there is growing technology, innovation and higher competition. Therefore, when customers go online, it is inevitable that manufacturers will be fully social network including online marketing to reach more customers.

New Economy

The New Economy is an economy driven by creativity, technology and innovation by building the capacity and strength of local communities. For sustainable economic development of the community using natural resources and local wisdom, technology and innovation are the driving factors. Socially conscious and sustainable conservation of natural resources and the environment to create added value to the economy to be "stable, prosperous, sustainable" and ready to entered the Thailand 4.0 eras. This is the era of technology and innovation to create competitive advantages. Local businesses should recognize the importance of developing Thailand country together. According to the current government policy, this is in line with the new Economic Reform Steering Subcommittee in the National Economic Reform Steering Committee. The National Reform Steering Assembly in 2016 commented that the new economy consists of (1) Bio economy (2) Creative and cultural economy (3) Digital economy (4) Social, economy and (5) Silver economy all aspects of the economy will develop and increase competitiveness and upgrade the Thai economy in the current Thailand 4.0 era. Each economy has different activity patterns, which are detailed as follows:

1. Bio Economy

In today's world, the bio economy is a novel concept. Starting with raw resources that are available in general ecosystems in local communities such as plants, animals, and microbes, which Thailand has a high biodiversity, is the introduction of knowledge from local wisdom to mix with innovation. (Biodiversity) is included into the manufacturing process through the use of production and processing technology to add value and develop new items that are unique to the area such as fermented water, biochemical products bio-plastic natural cosmetics processed herbal products such as soap, shampoo, toothpaste with herbal ingredients, etc. This is in accordance with the Council to drive the country's economic reform described in the 2017 report, ecosystem changes and Investments in new economic trends Bio-economy means using knowledge, technology and innovation as the basis in adding value to biodiversity and agricultural products. To reform the economic development that changed from contract manufacturing continue to develop to increase the value of the product agriculture and biodiversity for sustainable economic, social and environmental benefits. Thailand has formed an Economic Development Agency (Public Organization) based on biological resources since 2007, with the responsibility of putting bio-economic strategies into action (Sersthsiro, 2009, 1) To fulfill its aim, the government has prepared the 20-year National Strategic Framework 2017-2036 in accordance with the Thailand 4.0 Development Guidelines. "Thailand is stable, prosperous, and sustainable" is a developed country that has developed according to the Sufficiency Economy Philosophy by defining four strategies that are environmentally friendly growth; emphasis on achieving the goal of creating green growth, which is the development of balance between economy, society, and environment. Strategy 5 strives to improve people's quality of life while also protecting the environment to the green economy. (Office of the National Economic and Social Development Council, 2017).

An examples of community enterprises that have successfully implemented the Facebook platform for marketing included Ban Chanode, Enterprise Group Klong Yong Community -Lan Tak Fa, Nakhon Pathom Province, the community enterprise group of organic rice over 1,800 rai is an example of community enterprise that has successfully used Facebook digital platform for marketing. The result of the research revealed that digital marketing communication clearly play a role for community enterprises and consumers by digital marketing communication that businesses and consumers both benefit from digital marketing communications. Facebook Page is a platform for consumers to connect more than viral marketing, fair, and Line Official through digital marketing communication. (Ntapat Wongrapingpat, et al., 2020: 118).

According to the research of The development of online social media of mushroom cubes of Mushroom and Non-toxic vegetable community enterprise to sufficient economy, Ratchaburi Province of Ntapat Worapngpat, Rungtiva Choothong, Phongsak Phakamach, Pensri Chirinang, Wasin Phromphithakkul. (2020: 169) found that most of the customers use social media on a daily basis. In addition to the sales of the store in the offline system, selling online is an important channel for

digital marketing such as Facebook, Instagram, Line@, Twitter. There are social media that are easily accessible in the digital economy age and it is a tendency to use social media to make more purchases.

2. Creative and Cultural Economy

The Creative and cultural economy is a new economic system with a process of bringing culture, economy and technology together. An economic event that relies on the creativity of people in local communities to create economic value creative and cultural economy, it is a new economic system that brings culture, economy and technology together that uses the creativity of local communities to create economic value by this creative economy including the production of goods and services related to the arts creativity, culture and local wisdom by creative products and services There are unique elements that do not copy anyone which is unique and unique of that local wisdom which is difficult to imitate easily and are often sold for a price as a result of the marketing success of local community products based on the creative economy concept (Thitithev Sittiyot, 2010, u. 9-12 ; Suchart Jorpradit, Adila Pongyela and Sermsak Wisalaporn. 2014: 173) In terms of Creative and Cultural Economy, it means bringing knowledge from local wisdom integrated local culture mixed with the history and creativity of the local people to produce products from local wisdom that are difficult to imitated. Innovation is a tool that may be used to make a product more valuable. Another definition is to use the body of knowledge creativity intellectual property that is tied to the foundations of history, culture, technology, and invention. In the development of new goods and services that provide value to the economy or society (Council to drive the country's economic reform, 2017).

According to research Marketing Channel Management for the Loincloth Products on the Community Identity Cotton Design Community Enterprise Group, Pathum Thani Province of Jarin Jarusen and Tannicha Virojrut (2022). Found that facebook fan pages were discovered to be the most popular internet marketing channel method. In accordance with Lakkhongkha (2021), in term of successfully adapted to the digital transformation era, as well as the mix of marketing techniques that affect consumer behavior in the New Normal era. An example of the combination of local wisdom and technology under the new landscape in the Covid-19 era is "Niaw wrapped bananas, Yai Sri" or sticky rice wrapped bananas, the wisdom of making local sweets by using a mixture of coconut sugar produced in the community to help distribute income to people in the community and take advantage of social media such as Facebook platform to serve as the main distribution channel. Another eye-catching element is a little letter delivered to customers as a thank you message on holidays such as New Year's and wishing everyone good health via other channels such as Instagram and Shoppee, as well as reaching out with Influencers platform, another channel that allows learners to know more efficiently. In addition, there are also opportunities from various departments in product developments and business operations, such as the Community Development Office, Nakhon Si Thammarat Province. An agency that plays a role in promoting occupational groups by bringing local wisdom to create added value into products and providing knowledge on registration as an OTOP entrepreneur. Professors from Walialak University assisted in

the development of method to extend product life and obtain various networks that resulted in the FDA mark from Food and Drug Administration. They have a distribution channel in the OTOP shop in Maung Nakhon, that located at the Nakhon Si Thammarat Airport. There have been examples of success, such as "Chewar," a Thai herbal product developed by the Chewa-vithi Community Enterprise in Nan Province, that received the Prime Minister Herbal Award (PMHA) 2019 National Outstanding Herbal Product Award and has followers. More over ten thousand people on Facebook, for instance. (BOT Pra Siam Magazine, 2022: 39).

3. Digital Economy

The economy of the digital age is a fascinating new economy. The use of information and communication technology as a key mechanism for promoting economic development and increasing people's quality of life is described in a variety of ways. To boost efficiency, information technology (IT) or digital technology is applied. Increase productivity in less time and provide value to products and services to compete with other countries, particularly with the widespread usage of smartphones and tablets nowadays. High-speed wireless networks (Wireless Broadband) such as 3G and 4G, which are easier to use than a PC, are used to communicate. (Electronics Transactions Development Agency, 2022). In that business, there are still some sectors that are starting to adapt to the digital economy. The digital economy is an interesting new trend economy. The use of information and communication technology is an important mechanism to drive economic development and improving the quality of life of people. Digital technology contributes to the reform of the production process. Business Operations, Services, Education public health Public administration, including economic activity (Council to Drive National Economic Reform, 2017). IT or digital technology, is used to increase productivity with the principle of driving digital economic and social policies. Therefore, it is interesting that local businesses should implement electronic commerce (E-Commerce) to sell their products to the local community via online channels as well as create a website for the provincial local business network to allow members of the local community to use Affiliate Internet Marketing. According to research Factor to Accomplish the Affiliate Marketing for Internet Entrepreneur : a preparation to AEC of Achaporn Kwangsawad and Patcharaporn Chipattanametee, 2013). Found that the success factor of Internet Entrepreneur pays most attention to online business model like Affiliate internet marketing by promoting products through business partner websites such as posting products for sale on other websites such as www.cosmetic-ibeauty.com which is a website for cosmetics, perfumes, beauty accessories, etc. The second factor is the service of web hosting because if the website development is good but the server has been problem such as slow downloading of data, it is not good for business. The storage capacity space, including data transmission, speed data transmission are something that entrepreneur should thinking about. The third factor is to promote website through search engine optimization : SEO by register a domain name with the extension .com, using a website name with keywords that describe your products and services includes promotion through social

network such as Facebook. The fourth factor is the Affiliate Service Provider issue, as well as the marketing plan factor in promoting the website through mass Facebook promotion. Affiliate internet marketing to deposit of products by community business on other websites that are business partners in the expanding digital economy. This is because local businesses are no less important to the country's economic development than other types of businesses. This makes Thai businesses eventually enter the digital economy era.

The research entitled The Model of Online Marketing on Social Network (Facebook) Tool for Community Enterprise Case Studies, Namuensri Community Enterprise Group, Nayong District, Trang Province. Kanokwan Thaipradit et, al., 2020, found that The use of social networks for community enterprises, such as the Facebook platform, will improve the efficiency of commercial operations. It is the process of creating a business using the system, as well as the consumer ordering and delivery procedure that could be seen when performing e-commerce business. There must be an aspect that is relevant both during and after the transaction. This will build credibility with sellers and consumers will be confident to buy again. It can be seen that consumers value credibility more than any other factor.

4. Social Economy

BCG Model is holistic economic development a three-dimensional economy along the way: namely the bio-economy, bio economy system focus on using biological resources to create value added. Focus on the development of high-value products that are linked to the circular economy. Taking into account the use of various materials as much as possible, and both of these economies are under the green economy. It is an economic development that is not just related to economic development. However, it must be developed concurrently with social development and environmental conservation in order to achieve stability and sustainability while also altering Thailand's biodiversity and cultural assets. To be able to compete with innovation in order to establish a developing BCG economy that is globally competitive, leading in the distribution of income to the community, the reduction of inequality, a strong community that is environmentally friendly, and the development of sustainability. (NSTDA: 2022)

The social economy according to the 2017, report of Council to Drive National Economic Reform, the Social Economy Reform is to create a new balance of sustainable development by using economic development as an important tool to reduce inequality in solving social problems, have good resource management, and protect the environment, leading to TRIPLE - BOTTOM - LINE development results in which all three sectors (state, private, and people or civil society) in society can play a concrete and effective role in the development in accordance with the Council to Drive National Economic Reform, according to the 2017 report, Ecosystem Changes and Investments in New Economic Trends. Social economy refers to an economic system that aims to create quality of life. Development of people at all levels in society in terms of economy, society and environment Emphasis is placed on promoting and supporting the private sector to participate in sustainable social development. In terms of CSR (Corporate Social Responsibility), businesses need to

focus on society and the environment. It is like returning profits to society by allocating some resources from the organization for social and environmental development. Assoc. Prof. Dr. Wanchai Sirichana (interview August 30, 2016) said that Singha Park has run business in social enterprises) with tea plantation, orchard and restaurant business by inviting villagers to join. In business by using methods and professions teaching villagers until the villagers began to have a better position and livelihood Resulting in business growth and finally Singha Park is a tourist attraction of Chiang Rai Province, website : <https://singhapark.com>

5. Silver Economy

The National Economic Reform Steering Council, according to 2017 report, Ecological changes and investments in new economic trends, silver economy refers to an economy that creates added value from an aging country. Emphasis is placed on producing and providing services that meet the needs of an aging society in order for the elderly to have a good quality of life in various fields. Encouraging businesses that use their potential of the elderly as a power to create economic value including promoting research Develop technology and innovations to increase sustainable competitiveness and build national security to support the country's Thailand is becoming a fully aged society. (Council to Drive National Economic Reform, 2017)

The five economies are very important to local business, with all local businesses should be adapted in accordance with an environment where technology and innovation affect all sectors of business. Especially local businesses that need to adapt to the new economy by adopting technology, creativity. Local wisdom and innovation are mixed and applied in local business, which is worth noting that Thailand is entering Thailand 4.0 era when digital disruption, in line with the digital economy, involved in technology and innovation, is involved in business management. Thailand 4.0 Vision, a policy vision for the development of traditional economies, moves towards an innovation-driven economy that can create added value and competition with technology and innovation.

Marketing management of local businesses in the digital economic era, if there is traditional marketing, such as handing out flyers, you can use the Windows Media Center. Advertising through amplifier speakers in the village or advertising local newspapers will result in a limited number of customers in the advertising area. Today, digital communication technology and innovations are being combined with marketing management. A new type of marketing communication called digital marketing is a new type of marketing by bringing technology to help manage marketing. It is worth noting that digital marketing on the Internet is a two-way communication in line with Wertime and Fenwick (2008), which defines digital marketing as "The development of future marketing occurs when the company performs most of the marketing tasks through digital media channels, it is a medium in which the user identification code is used, thus allowing marketers today to continue to communicate two-way communication with customers on an individual basis, with information obtained from each customer being considered a shared learning, which may be useful to customers (Chaiyasit Charoenwongwiwat. Messengers and messengers must be recognized only through media or electronic

devices, such as mobile phones. Smartphones, tablets, computers or televisions watched over the Internet are all digital marketing tools, with local businesses gaining access to more customers as the Thai population is increasingly using the Internet. According to the report on the behavior of internet users in Thailand, In 2018, EDTA found that Thai people use the Internet for an average of 10 hours and 5 minutes a day, an increase of 3 hours and 30 minutes from 2017 (Electronic Transactions Development Agency, 2017: Online)

Don Tapscott, book author "The Digital Economy: Promise and Peril in the Age of Networked Intelligence," published in 1995, it has been a bestseller. In 1996, it became the number one best-selling business concept book. According to Tapscott, the Internet would alter the trajectory of trade in ways the world has never seen before, necessitating the development of an IT infrastructure. Effective management, as well as adapting and adjusting people's attitudes, are all governed by rules and regulations. The Internet Economy / The New Economy / Web Economy are some of the various names for the Digital Economy, however the most prominent moniker is Digital Economy. (Digital Government Development Agency [DGA], 2022).

At present digital channels can create opportunities for businesses. What matters is to choose the right channel for local businesses. Popular digital marketing tools and digital marketing communication channels, including websites, are advertising local businesses through digital marketing communication channels. By posting product photos, product codes, product details, prices on the website, and trading products through the website, as well as paying for goods via an online payment system called Internet banking, customers can track the status of the shipment via the website. This is all called e-commerce. Ranked Security Engine Optimization (SEO) is a way to customize your website, which includes improving content and adding quality links to your site so that your site is at the top of the search result page. (Chaisit Charoenwongwiwat, 2016: 8)

E-mail Marketing is online marketing. By sending advertisements or promoting products of local businesses via email directly to customers. This kind of marketing is popular, but the authors of the article noted that email recipients are not interested in reading it. Due to the large number of marketing practices, it can result in annoyance and disregard for e-mail recipients.

Content Marketing is digital marketing, creating content in different ways, such as video, text, audio clips, and graphic data. The purpose of Content Marketing is inevitable in order to create awareness and brand loyalty. (Chai Charoensitwongwiwat, 2016: 9) Social network such as Facebook, LINE, Youtube, Instagram, Twitter, etc. For example, social media like Facebook, where local businesses must first register as a member of that website, for example Facebook, by visiting the website, www.facebook.com, registering, then posting photos, product details and prices, and being able to interact with customers on Inbox or mailboxes, all as advertising local businesses' products through profiles or creating stores using the Facebook page service. Facebook currently has a new distribution channel, Marketplace, a group of people who combine to trade products on Facebook's website. Mobile Application Marketing Communications (Chaisit Charoenwongwiwat, 2016) it is becoming very

popular nowadays. The most popular application type is social networking/social media application and the second most popular application for information exposure.

By engaging with local businesses, digital marketing makes communication with customers easier and faster. It will help bridge the gap between local businesses and customers. Printing additional item inquiries responding to questions or problems can be done in a timely manner through the channels of digital marketing. This is an opportunity to sell more products more convenient, faster, more economic growth according to government policy.

Conclusion

The new economy is driven by creativity, technology and innovation by building the capacity and strength of local communities for sustainable development of the community economy, using natural resources, local wisdom, technology and innovation as a driving factor, taking into account society and conserving natural resources and the environment sustainably to create value-added economy, to create "stable, prosperous, sustainable" and ready to enter Thailand 4.0, an era of technology and innovation, to create a competitive advantage, which local businesses should realize the importance of together in the development of Thailand. By the way, they are using such as Facebook, Instagram, Line@, Twitter and other platform for efficiency digital marketing of the local business in the digital economy age.

The author believes that current business in the community must adapt to evolving technology such as digital technology. Digital marketing, in particular must be used. The author expects that in the future, Thailand will have community enterprises that integrate local understanding to develop marketing within the context of Thailand's existing digital marketing framework.

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Expansion Strategies into the Global Market of Thai SMEs Businesses under the New Normal

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Abstract

This article presents Thai SMEs businesses' expansion strategies into the global market as many businesses continue to grapple with the impact of the COVID-19 pandemic. The goal of Thai SMEs business expansion strategy under the new normal lifestyle is to foresee the long-term future after the COVID-19 pandemic. Moreover, it is about preparing for a sustainable future of Thai SMEs businesses in the global market. It consists of 5 strategies: (1) product and service strategy (2) technology strategy (3) management strategy (4) marketing strategy and (5) adaptation Strategy.

Keywords: Expansion Strategy, New Normal, Thai SMEs Business, Post COVID-19 Crisis

Introduction

International businesses are the factor that has driven Thailand's economy all the way through. Previously, the government mainly focuses on export promotion and foreign direct investment (FDI). However, this situation might have to change, particularly when competitions and usurpation in trade and investments all over the world keep getting more violent according to competitions of the 2 great powers between USA and the People's Republic of China, along with other countries all over world due to speedy business rehabilitation during the post COVID-19 crisis. This causes direct impacts to Thailand. Therefore, Thai entrepreneurs must adapt to the upcoming changes. For example, the tendency to issue trade barriers (nontariff) that will multiply due to changing rules and regulations in many countries for speeding up their internal business rehabilitation after lockdowns to deal with COVID-19 crisis. The collapse of traditional businesses, the increase of numerous new business competitors, and many countries all over the world will promote investment and international capital flow more to speed up economic rehabilitation in their own countries (Affandi, A., et al., 2020).

The key point is that most current Thai entrepreneurs still export goods based on the old price of F. O. B. (Free on Board) while the differential between the price of F.O.B. and the retail price was 5 times higher than previously, along with OEM. This causes Thailand to lose a lot of benefits from the value chain. Economic rehabilitation in many countries during the post COVID-19 crisis. This provides opportunities for more businesses, products, and services from other countries to Thailand. In the meantime, Thai entrepreneurs have not fully utilized trade agreements made with other countries yet, particularly stepping into other markets with advantages of tariff agreements and other privileges. Also, they do not understand upcoming impacts during the post COVID-19 crisis. Therefore, Thai entrepreneurs should adjust business and marketing

strategies during the post COVID-19 crisis by setting goals of national revenue creation through higher value added in export. In the meantime, competitions in the globalization era during the post COVID-19 crisis, particularly the large countries that can deal with COVID-19 crisis efficiently and can rehabilitate before other countries, e.g., the People's Republic of China, Singapore, South Korea, USA, India, and even other ASEAN countries that have advantages of natural resources, labor, and technology transfer caused low manufacturing cost, resulting in the continuity of cheaper products and services in the global market (Amankwah-Amoah, J., Khan, Z., & Osabutey, E. L., 2021)

Many countries turn to give precedence to FDI promotion apart from export promotion. ASEAN economic integration of Thailand during the post COVID-19 crisis will increase trade and investment opportunities. To clarify, from the start of AFTA in 1992, the importance of ASEAN has increased until it becomes no. 1 export market of Thailand and tends to increase continuously in the future. When tariff and nontariff trade barriers are cancelled, there will be opportunities of free flow in the region and of more trade during the post COVID-19 crisis.

The government policies and support to develop strategies to the foreign market among Thai entrepreneurs have developed strategies of stepping into the global market by Department of International Trade Promotion (DITP). It was found that there is the project to promote Thai entrepreneurs to international businesses by providing them more businesses opportunities overseas as a mechanism for value added to Thai products. While many businesses are still fighting against impacts of COVID-19 crisis, the key goal of Thai business strategies that should be implemented promptly is long-term perspectives until the post COVID-19 crisis and later on. This means expansion strategies of Thai businesses will not be related to adaptation during COVID-19 crisis, but rather related to preparedness for the strong future. This is the background and significance of this article writing. Therefore, it is interesting to study expansion strategies into the global market of Thai businesses under the New Normal. These strategies have been started in entrepreneurs of SMEs, and can be used efficiently for further development of SMEs, with success measurement to prove that expansion strategies into the global market of Thai businesses under the New Normal can be used in real until they become the key conclusions of expansion strategies into the global market of Thai businesses under the New Normal for the success of entrepreneurs of SMEs in the global market, and can create national revenue for business growth and better national economy.

What are expansion strategies into the global market of Thai SMEs businesses under the New Normal?

International business expansion strategies are the multilevel official strategies that many businesses use for stepping into the global market, creating progressive status, and making fast profits. International business expansion strategies also create structured and sustainable growth if they are set correctly. These strategies can reduce the risk of expansion and promote the use of resources, time sequence, and capitals efficiently for global expansion of Thai businesses under the New Normal (Crick, J. M., & Crick, D., 2020; Ding, A. W., & Li, S., 2021; Gössling, S., Scott, D., & Hall, C. M., 2020).

The plan of expansion strategies into the global market of Thai SMEs businesses under the New Normal consists of the key components as follows.

1. Internal audit: To make sure that the overall internal variables, e.g., product presentation, types of services, and brands are ready for the global market. Internal audit contains different aspects and should be adjusted to suit main agencies. Thai entrepreneurs of SMEs can use these tools for analysis, e.g., SWOT gap-analysis and market segmentation. The analysis of Thai entrepreneurs will facilitate companies to understand their own current strengths, growth area, and the differences of offers about values for the global market efficiently.

2. Competitive analysis: To examine business offers and operation of Thai entrepreneurs of SMEs under industrial competitions in new markets.

3. Market analysis: To analyze product and service cycle, together with the landscape of new target markets. This includes market analysis in details, market sizes, growth efficiency, consumer base, consumer attitudes, research on the marketing gap, research on distribution channels or marketing channels, investment analysis, economic status, and other related issues.

4. Marketing strategies: Include brand positioning, marketing channels, product or service delivery, marketing KPI, marketing programs, and even price assessment in accordance with economic environment of new markets.

5. Infrastructural plan adjusted to locality: By concluding needs and approaches to create presence at the local and regional levels in accordance with infrastructural plan, employment of employees and international executives, finding local sellers, setting legal status, controllers, tariff, and locating places or physical bases if necessary.

6. Top-down budgeting: Starts from resources for lunching only between 6-12 months in accordance with overall business plans of Thai entrepreneurs of SMEs. Those budgets must be increased to support continuous expansion at least for 3 years, with monthly KPI monitoring.

7. Clear and feasible planning: Check to make sure of clear and feasible workplans, with creativity and current business objectives.

Why Thai SMEs businesses should be expanded to the global market

Thai businesses with determination to grow further will head to the goal of their growth into the global market for sustainable growth for companies. That is because the globalization in the world of trade nowadays expand in other countries more. Also, during the post COVID-19 crisis with rapid changes, one thing that most companies in Thailand rarely do is to identify suitable backgrounds of international business expansion strategies with the post COVID-19 crisis. It can be said that growth for benefits of companies can be harmful. Therefore, to acknowledge “why” is important because it can drive decision making and facilitate Thai entrepreneurs of SMEs more efficiently. It can also measure their success better. The following items are some general causes of expansion into the global market of Thai businesses under the New Normal.

(Hamilton, J., 2020; Liu, Y., Lee, J. M., & Lee, C., 2020; Omar, A. R. C., Ishak, S., & Jusoh, M. A., 2020; Wang, Y., Hong, A., Li, X., & Gao, J., 2020).

1. To find new efficiency or to fulfill the gap of deficient efficiency: Many companies do not have to restrict themselves to remain within local efficiency any longer. When communication technologies can be used to unlock employment for enhancing better business efficiency and for working together across borders sometimes, often, and all the time with same effectiveness as regular work. It can be noticed during COVID-19 crisis with WFH (Work from Home), to which technologies can be integrated and replaced regular work efficiently as the New Normal. Because now there are software that can share documents and project management packages to connect online operation and to create conformity of international operation for working together, along with IT security and protecting end-to-end connectivity support network for safe operation everywhere.

Therefore, it can be said that when all things are combined together, these tools can help expanding original employment groups through backyards of Thai entrepreneurs of SMEs. Moreover, Thai companies would like to hire foreign employees particularly in some situations as follows. (1) When they would like to launch new concrete products to new foreign markets, and thus local work teams are required. (2) When they would like to launch new services to new foreign markets, and thus local work teams are required. (3) When they would like to adjust organizational structures during the post COVID-19 crisis in accordance with objectives of overall organizational strategies that must adapt to the change of consumer behavior. And (4) when they would like to utilize current professional networks at the global level and capable groups around the world available at all levels of employees all over the world.

2. To extend product life: All products or services are available as per their life cycle. Although details are different in accordance with industries, products generally undergo their start and launching, market perfection, and stability. Most are finally reduced and not used any longer.

Therefore, it can be said that expansion strategies overseas *are the start of life cycle in new markets*. Companies should invent new start continuously to expand their markets, focusing on the development and outstanding strategic extension of product or service life in new markets. Previous errors can also be rectified by applying in new markets. And when considering vice versa, foreign markets will rehabilitate produces and services that might be close to due dates in other markets. The outcomes are new branches of revenues for head offices and sustainable growth.

3. To spread market presence: Successful business expansion to foreign markets can reduce risks in the long run. Although expansion to foreign markets of Thai entrepreneurs of SMEs is useful for cost and possibly unavoidable new obstacles, successful international business expansion reduces reliance on strength of domestic markets in Thailand only. Presence of various markets can drive organizations into the global market more efficiently by creating balance of revenues for businesses.

4. COVID-19 crisis that had never occurred before provides rare periods for expansion: mergers, acquisitions, branching, or locations of new sales offices cause

possible a turning point for Thai businesses. Debut into the international stage is also similar because the business situation in each country during the post COVID-19 crisis will not be the same any longer. There will be the marketing gap for Thai businesses to expand into new markets. International business expansion strategies can create such advantage.

Therefore, utilization from COVID-19 crisis that changes markets all over the world is a suitable time to expand company branches, spin-off, or establishing branches in new markets to expand the access scope of products and services of head offices.

5. Because it is time for growth: Sometimes, the most frequent reason for business expansion is because of the need for success of which empirical results can be measured. If Thai entrepreneurs of SMEs view interest in products and services at the international level, it might be time for them to leap and test their strategies in order to create opportunities and alternatives under the time of need for economic rehabilitation in all markets of the world during the post COVID-19 crisis.

Expansion strategies into the global market of Thai SMEs businesses under the New Normal heading to international success

According to COVID-19 crisis, Thai business can step into the global market from the marketing gap that the new market in each country speeds up their economic rehabilitation from now on by using expansion strategies into the global market of Thai SMEs businesses under the New Normal heading to international success (Gartner. Inc., 2021; Wang, Y., Hong, A., Li, X., & Gao, J., 2020; Omar, A. R. C., Ishak, S., & Jusoh, M. A., 2020; SIDDIQUI, K., 2020) as follows.

1. Product and service strategies: Thai SMEs Companies must set various natures of products and services. This conformed to the study of Porter (1990), stating the theory of competition strategies as product differentiation strategies for consumer perception of distinctive differences from competitors. Executives can differentiate their products based on technology criteria, customer services, product design, distribution, and so on, which are meaningful to customers when they believe that those products are different from competitors'. They will be willing and ready to pay for those products at high prices. The received benefits are customer loyalty and higher profits.

2. Technology strategies: Thai SMEs companies should have technological process innovation. It is the improvement of all steps of manufacturing process from input to output. Technology improvement can increase yields. In other words, technological process innovation is the implementation, OEM, or new/ significantly better services that might be related to change of manufacturing equipment, communication tools, human resources, approaches, or the combination of these.

3. Management strategies: Thai SMEs companies should Manage in duties and organizations at the level of international businesses is related to communication among offices, overseas, and activities control overseas. Therefore, the duty of human resources management was important, which is actually financial issues. For example, trade credit that should be given to customers overseas, management of nontariff trade barriers, exchange of financial risks, adding capitals, setting ground teams in countries where businesses intend to set new markets for studying and finding data to deal with upcoming

change, creating CRM with customers in new markets for branding to generate loyalty and repurchase, using supply chain management to increase business opportunities, and so on regarding management as per duties. Executives are important to take care of foreign markets.

4. Marketing strategies: Thai SMEs companies must be alternatives that markets in which countries to be step into, along with consideration of market sizes. There must also be evidence that companies, particularly from the start of stepping into globalization, will step into countries with most similar mental distance of same styles in term of cultural aspect (language), legal systems, business approaches, and so on. This study mainly focuses on product change, new procedures, and new markets; or so-called product innovation, marketing innovation, and technological process innovation. Products using these innovations are based on the principles of marketing innovation, with more groups that need new customers.

5. Adaptation strategies: Thai SMEs companies should refer to alternatives for stepping into markets in new issues during the post COVID-19 crisis. Therefore, approaches of sending products into markets are rather influential to success overseas. Service approaches affect cost-transportation, manufacturing, marketing, and so on like revenues through quality; along with adaptation to local needs, transportation, after-sales competency, government actions, consumers towards product origins, national trade policy during the post COVID-19 crisis, and public organizations. Therefore, Thai direct investment abroad (TDI) is the best approaches to protect market share. Other alternatives, e.g., export and request for permission will not acquire as good data as TDI.

Tips to be considered in expansion strategies into the global market of Thai SMEs businesses under the New Normal

1. More digitalization: The clearest tendency during the post COVID-19 crisis is to continue digitalization, which seems to be continued for decades and possibly for many decades like analog changing into the World Wide Web to connect with the online world since 2020. COVID-19 crisis has changed the way of life in the sense that digital system affects businesses that need such system urgently, which is different from normal situations that might take many years to change or to build acceptance of digital utilization in organizations. COVID-19 crisis has pressed all organizations to adapt themselves for survival under COVID-19 crisis. And from now on, many people might still live under the New Normal, like WFH while reading this message. This can be sure that all in the world are currently undergoing these incidences, e.g., remote work via Zoom, Teams, other applications, e-learning, and digital experiences in other platforms from the start of COVID-19 crisis (Affandi, A., et al., 2020).

According what Gartner (2021) stated in “Strategic Predictions for 2021 and Beyond” that these tendencies will still be influential or exist as private and at work as expected. For example, in 2025 “over 40% of businesses focusing on services through physical experiences will be improved to generate financial outcomes and to win competitors by expanding more to virtual systems and online payment.”

However, despite some examples, business development that needs adaptation for survival and the exact direction guided by COVID-19, it is safe to say that all

businesses must open to further digital systems as a key tendency in their strategies. Thai entrepreneurs of SMEs that aim to expand into the global market must use as part of strategies, either more or less.

2. Responsible businesses: Another tendency having been found for years is giving precedence to responsibility, sustainability, transparency of businesses, and consumers. When the time for businesses can pay their full attention to profits and maximum value added of shareholders is up, companies are definitely still available or might even reach their financial success. But these ideas gradually change. For example, “Over hundreds of millionaires spreading letters during Davos 2020 of World Economic Forum requested the government to increase tax in order to solve the problem of inequality.” Other examples include the tendency of more sustainable and more responsible businesses, driving automobile industry into electric cars, and driving energy companies.

Therefore, it can be seen that according to the tendency behind these examples, all Thai businesses must accept CSR-based businesses that will tend to be a key and unavoidable tendency in their own strategies to expand into foreign markets more.

3. Flexible organizations: Until COVID-19 crisis, there are only a few organizations with systematic ideas of flexibility as a key interest in businesses. This has remained accordingly all the way through, i.e., efficiency in different forms such as cost reduction, lean manufacturing, increasing maximum profits, growth, and so on. Although this leads to prosperous organizations, it can lead to fragile organizations as well. That is because COVID-19 crisis is remaining painfully. Future epidemics or crises can occur anytime. All business must accept flexibility as a key tendency in their strategies to survive and to grow under those crises.

4. Good employment: According to COVID-19 crisis, employment has changed. Good employment basically comes with being as good employers, treating employees nicely by offering prosperities and good, and suitable salary. Also, they should provide employees the level of freedom and work control, work balance; along with inspiring, safe, and healthy workplaces. In other words, it is to take care of their employees.

This trend actually had occurred before COVID-19 crisis. When young generations enter the labor market, their concepts of careers and work gradually change. Employees are looking for suitable jobs to their more suitable and meaningful life. This means they focus on their preferences rather than the necessity of being employed.

This trend is likely to grow further because the labor market becomes a key market with more importance to organizations than usual in many industries, particularly those relying on technology. Lack of skillful personnel is a key obstacle to growth and continuity, not lack of need from general markets. This causes a main worry about attraction and retention of good employees. Therefore, good employment is indispensable. It can be said that COVID-19 is speeding up such trend to occur. Simultaneously, organizations also give more precedence to employee safety to assure of their safety no matter what will occur. It also challenges the basic concepts of the true meanings of offices, the feasibility of WFH or work from anywhere, work-life balance,

and is it necessary to travel for work? Lastly, in the world of personnel with low skills with higher demands, all businesses must accept good employment as a key tendency in their strategies, particularly when entrepreneurs of SMEs must expand into new markets, it is much more important to consider these tendencies into suitable utilization of strategies in accordance with upcoming situations.

Challenges of Thai SMEs business expansion overseas and how to avoid obstacles

More challenges and pain are unavoidable when expanding businesses overseas. Business expansion overseas changes their perspectives of these obstacles from threats into manageable operation by available tools. The general challenges of business expansion overseas changes (Crick, J. M., & Crick, D., 2020; Amankwah-Amoah, J., Khan, Z., & Osabutey, E. L., 2021; Ding, A. W., & Li, S., 2021) are as follows.

1. Follow regulations and law: Smooth business expansion to another country without violating any laws or regulations is most important for the majority of business leaders. They acknowledge that many countries question implementation of rules & regulations and techniques that come with (1) establishing conglomerates or regional companies, (2) opening national bank accounts, (3) registration with tax/tariff agencies, (4) receipt of local trade certificates, (5) storage of records and document submission, (6) starting examination of patents and trademarks, and (7) management of salary, compensation and welfare in compliance with the law of a particular foreign market.

2. Testing and quality assurance: Testing products in foreign markets is a good approach to set the goal of the final expansion of Thai entrepreneurs of SMEs. Soft launch in markets facilitates Thai entrepreneurs of SMEs to test market share implementation during internal audit, and increase overall perception of brands of Thai entrepreneurs of SMEs in that region.

However, testing markets of products or services is difficult if all are tested. What's more, when concrete products drive business expansion to overseas, new materials and supply chains are required as they might lead to incongruent quality of products.

Therefore, product and service localization of Thai entrepreneurs of SMEs for better can assure of acceptance in new markets. Localization helps finding supply chains and quality assurance in accordance with local standards. Besides, it also smoothens transition from a culture to another one, with suitable translation of products or services, new product design, new packaging design, and creating suitable advertising campaigns as well as marketing with culture. These are parts of new wrapping strategy or translation into local languages of Thai entrepreneurs of SMEs.

3. Operational infrastructure: Will companies of Thai entrepreneurs of SMEs be launched to reveal their presence in new markets? Will qualifications of reputable conglomerates meet regulations? When is it necessary for organization to recruit these positions? And what are the requirements for job application? These will be different in each particular country because applicable infrastructures during expansion worldwide are related to construction, modification, and administration of the back of organizations as well as latest workflows for (1) human resources, (2) salary, (3) accounting and bookkeeping, and (4) legal consultants.

The back infrastructures are expensive and take a long time. As a result, most organizations that expand into foreign markets must undergo the severe risk of rules & regulations in case a certain system is not in accordance with laws of new countries.

4. Lack of decision making by data support: Many people surely used to hear the statement that current businesses “are drown with data/ information overload.” Business expansion strategies overseas are usually victims of this old idea. Stakeholders will draft expansion plans; set due dates, resources, and channels; and set goals and objectives for foreign markets. They use data to create these initial expansion outlines, but then they let them go aside.

The suitability for Thai entrepreneurs of SMEs who will expand their markets to overseas that must be considered is to set the clear quantitative goal for each step of international business expansion, starting from measuring those goals immediately. Then, they must be reviewed regularly to assess progress in the entire process of international business expansion. To do accordingly, the cost of resources is reduced, with the answers for feedbacks to disruption of unavoidable processes or culture shock. It is a basis of suitable decision making for future markets.

Conclusions

Business expansion overseas is a delighted opportunity for many Thai SMEs businesses and pressured reality. Sometimes, it causes stress to other Thai SMEs businesses because new markets, new revenue streams, and high return from new investment will rehabilitate product development as “Going global,” a strategic trick to open future international markets for many organizations that seize the time of the New Normal during the post COVID-19 crisis to expand Thai SMEs businesses to markets worldwide.

However, Thai SMEs businesses to be expanded at the international level should be aware of growth, and must be implemented as *marathon rather than sprints* because approaches for success to develop further into international markets, along with the conceptual framework for stepping into foreign markets of Thai SMEs businesses, alertness, adaptation, and the growth of Thai entrepreneurs of SMEs under the New Normal during the post COVID-19 crisis cause most entrepreneurs to adapt in order to be able to implement in competitions in international markets more. That is because opportunities of national rehabilitation during the post COVID-19 crisis in each particular country are different. In addition, new business opportunities that had never occur before in the normal situation during the COVID-19 crisis are even more important for Thai SMEs businesses.

Therefore, to set efficient strategies for stepping into foreign markets, new strategies should be focused on to catch up with competitions in foreign markets, based on the theory of Porter’s competition strategies, product innovation, marketing innovation, and technological process innovation. Four approaches to step into foreign markets should be included, i.e., (1) mergers, (2) acquisitions, (3) international business alliances, and (4) internet as a key tool for direct sales. As a result, Thai entrepreneurs of SMEs will able to compete in the global market with sustainability.

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An Analysis of English-Thai Translation Errors of Global Business English Students

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Abstract

This paper mainly aims to analyze the translation errors in business article "A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars". The objectives of this study were to examine the errors between the meanings of the source language and the in the business article "A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars". It is also intended to show how to translate business article properly from English into Thai. This research, a mixed method combining qualitative and quantitative study- is used. The data in this research are business articles in source language (English) from <https://nytimes.com>. and the target language (Thai) from participant in A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars.

In this study, 283 pieces of translation errors were found in the business article A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars. The data were then analyzed by using House's Model (2015), divided into three main parts; mentalist views, response-based approach, and linguistically-and text-oriented approaches.

The results of data analysis discovered that translation errors are the most for 122 times (43.10%); the response-based approach came the second for 79 times (27.91%) divided into behavioristic view 73 times (25.79%) and functionalistic 6 times (2.12%), and text and discourse-oriented approaches 82 times (28.97%) only one of linguistically-and text-oriented approaches.

The result above showed that the translation errors from one language to another language are different dominantly.

Keywords: translation, translation errors, types of translation errors

Background and Statement of the problem

Language is not only the tool of a nation for expression but also a carrier of its culture. Since every language is closely linked with its culture especially communication completely is also a part of everyday language use, it becomes difficult when the translator tries to communicate completely and correctly. A good translation ought to transfer the message into another language as faithful and thoroughly as possible, so that the viewer of the target language is able to have the same clear understanding and the same strong feeling for the message as the reader of the original work. The process of translation between two languages involves the translator changing an original text to the target language and the most important thing is the meaning. The translator has a several identities. First, a translator is a

reader, they should know the text and its social and cultural background. Moreover, a translator should keep the author's feelings and thoughts from the original text. Secondly, a translator is a writer, they should be proficient in two or more languages, and have a professional writing skill. Thirdly, a translator is a creator who is able to understand the source text well and to recreate to the target text which is faithful to the original text and each translator should have their own method of how to translate using their own style. As mentioned above, translation is difficult to do, and can cause several problems: language ability, culture, creativity and knowledge, for instance.

The aim of this research is to study translation errors made by 3rd year students majoring in Business English and their strategies used in translating from English to Thai.

Objective

To analyze the translation errors in business English translation of Global Business English students

Literature Review

As we known that an error refers to the production of incorrect forms in speech and writing by a non-native speaker of the target language, due to the incomplete knowledge of the rules of that target language.

According to Pym (1990) said that we already know that translators transfer information from one language to another language, in order that people with different knowledge of a certain language will know the information. The question is that how can translators be success in translating? What is the main factor that they must follow, in order that people with knowledge of different language can understand the information? The answer is translators must overcome all problems which they will face during the translation process because translation is the matter of mixing two cultures, two perceptions, two languages and others into a one solid written material that will be understood by the receiver.

Different scholars have defined translation errors; according to Brown (1987: 125) defines an error as a noticeable deviation from the adult grammar of native speaker, reflecting the inter language competence of the learner. While Richard (1997: 25) states that a learner's errors provide evidence of the system of the language that he is using (i.e. has he learned) at a particular point in the course (and it must be repeated that he is using some systems, although it is not yet the right system). While Catford (1965: 20) defined translation as the replacement of material in one language (Source Language) by equivalent material in another language (Target Language). While Nida and Taber (in Nord 1997; 7) said that translating consists in reproducing in the receptor language the closest natural equivalent of the source-language message. From these definitions we can conclude that there are at least two factors involved in translating, they are the sender or the Source language which will be translated and the receiver or the Target Language which translators must translate it into.

The appearance of such errors can be detected. It means that the errors arise because each learner has different motivation, social background, and intelligence. It has a relationship with the learner's language competence. In learning a second

language, some errors appear because the learners have not yet understood the grammar of the second language. Moreover, there are various types of translation error experienced by the translators. Previous studies have reported those kinds of difficulties. This research provides valuable information about the types of Errors.

Types of Error

According to Dulay, Burt, and Krashen (1982: 146) the most useful and commonly used as bases for the descriptive classification of errors is linguistic category, surface category, comparative taxonomy, and communicative effect taxonomy.

a. Linguistic Category

Linguistic category taxonomies classify errors according to either or both the language components or linguistic constituents. Language components include phonology (pronunciation), syntax and morphology (grammar), semantics and lexicon (meaning and vocabulary) and discourse while constituents include the elements that comprise each language component (Dulay, Burt and Krashen, 1982: 146).

b. Surface Category

The categorizing of errors is according to how the surface of a sentence or expression is altered by the error (Shaffer, 2005). Such a classification would include omission, misformation, and disorder.

1) Omission

Omission errors are characterized by the absence of an item that must appear in a well-formed utterance. For example, "She sleeping" (Diasedangtidur) indicates that one item is omitted, which is 'is'. The word 'is' is a grammatical verb form that plays an important role in constructing a proper sentence. And the word 'is' in that sentence function as an auxiliary. A verb in a proper sentence. That type of error is called omission error.

2) Additions

Additions errors are the presence of an item that must not appear in well-formed utterances. Dulay, Burt and Krashen (1982: 156) say addition usually occurs in later stage of second language acquisition or when the learner has acquitted some target language rule. There are three types of addition errors.

a) Double Marking

The failure to delete certain items which are required in some linguistics contraction but not in others. For example, she didn't went (Dia tidak pergi).

b) Regularization

Regularization errors that fall under the addition category are those in which a marker that is typically added to a linguistic item is erroneously added to exceptions that can be found in English. For example, the verb eat cannot be changed into eated but ate. The noun sheep in plural form is also sheep not sheeps, or the noun man cannot be pluralized into mans but men. It is true that in English most of verbs can be changed into past form by adding -d /-ed after the basic verb and most of nouns can be pluralized by adding -s/-es to singular forms, but not all of them. The

description above shows other errors that may be made by the learners, which is error interfered by regularization.

c) Simple Addition

Simple addition is the subcategory of additions. It is called simple addition, if an addition error is neither a double marking nor regularization. According to Dullay (1982: 158), no particular features characterize simple additions other than those that characterize all addition errors-the use of an item which should not appear in a well-formed utterance. For example, in the book is in over there, the student makes a wrong sentence. They add 'in' as preposition. The well-formed sentence is the book is over there (Buku itu disana).

3) Misformation

Misformation error is a type of error that is characterized by the use of incorrect morpheme or structure. For instance, the cat catches a mouse. The simple present tense was not supplied by the learner. The wellformed sentence is the cat catches a mouse (Kucing itu menangkap seekor tikus).

4) Misordering

Misordering error is error that is characterized by the incorrect placement of a morpheme or group morphemes in an utterance. For instance, I do not understand what that is. Here, the learner misorders the word 'is' and the well-formed sentence is I do not understand what that is.

Literature on Translation Strategies

Translation has been defined in various ways by translation theorists. According to Calford (1965), "Translation is an operation performed on languages: a process of substituting a text in one language for a text in another... [by means of general linguistics]". There is another definition of translation stated by Newark (1988): "rendering the meaning of a text into another language in the way that the author intended the text". Newark divides the types of translation as follows:

1. Word-for-word translation

A translation that follows the form of the source language or direct translation, out of context, for instance, the Bible and religious texts.

2. Literal translation

A translation that follows the form of the source text and converted into the target language as close as possible.

3. Faithful translation

A translation that conveys to the original meaning of the source text as directly and accurately as possible into the target languages.

4. Semantic translation

A translation that focused on meaning and is used for "expressive" texts, and the meaning of the source language should be close to the target language as much as possible.

5. Adaptation

The "freest" form of translation, more of a target language and culture-based interpretation of the source text than a translation. It is used mainly for plays, comedies and poetry.

6. Free translation

The only one method that translators can use to translate without a form from source text, which means the translators can select any words that have the same meaning to the original text.

7. Idiomatic translation

The message is similar to the original but tends to distort nuances of meaning by preferring colloquialism and idioms where they do not exist in the original.

8. Communicative translation

According to Newmark (1988), "Communicative translation attempts to render the exact contextual meaning of the original in such a way that both content and language are readily acceptable and comprehensible to the readership."

The use of translation techniques and the selection method tend to be based on the adoption by the translator. The next chapter describes the used to collect the data included details about the studies, research method, data and source of data and the procedure of research.

Shabnam Shkernia (2014) analysed the information that conveyed and what the relationship between sender and receiver. On the process of comparison ST to TT, errors are produced and categorized according to the situational dimensions of register and genre. These dimensional errors are referred to as covertly erroneous errors. Also, There are overtly erroneous errors which are denotative mismatches or target system errors. Then the translation can be categorized into one of two types: over translation or covert translation. Through the analysis of the translation and the source text, it is possible to determine whether the text is translation in his rendering. This paper tends to apply her model on a short story named the Grapes of Wrath by John Stein Beck. It is translated by Mohammad Sadegh Shariati. This paper applies House's model on this short story to find out whether the translated works is translated covertly or overtly.

Bodour Abdulaziz Alfaleh, (2017) He analyzed on the translation quality assessment of proverbs. These proverbs are collected from *One thousand and one English Proverb* translated into Arabic by Omar Jabak. This study aims at pointing out the most frequently used strategies for translating proverbs, and investigating how far Na Pham's error analysis model is appropriate for the description and assessment of the strategies used in translating these proverbs, and investigating how far Na Pham's error analysis model is appropriate for the description and assessment of the strategies used in translating these proverbs. Na Pham's error analysis model is used to identify comprehension, linguistic and translation errors. Moreover, this study aims at detecting the most common errors under each strategy used. The findings of this study show that Na Pham's error analysis model is appropriate for the assessment. It also reveals that there are certain types of errors which are committed more often than

others. In addition, it uncovers that the types of errors detected when translating proverbs using partial equivalence and paraphrasing are very similar. Comprehension errors, giving an inaccurate meaning, and distorting the meaning are the most frequently detected errors when translating proverbs using partial equivalents and paraphrasing. On the other hand, wrong lexical choice and too-literal translation are the most frequently detected errors when using literal translation. Finally, this study suggests solutions for improving the quality of Arabic translations of proverbs. In addition, some recommendations for further studies are suggested.

Safa Hassan Ahmed Al-Haddad (2019) studied in an attempt to evaluate and assess the quality of the translation of the novel *Beloved* (1987) by Morrison from English into Arabic in light of House's model in its latest modified version that has been published in 2015. The analysis covers selected parts of the source and target texts comparing the source text's profile and target text's profile to come up with the mismatches at the register level i.e. (field, tenor, and mode) suggested by House's 2015 model. The analysis of the source text and target text has revealed a number of mismatches along these dimensions where these mismatches caused a change of the interpersonal functional component. The statement of quality at the end states that the end product was far less than the original work in terms of linguistic employment.

Research Methodology

In this research, a mixed - method – qualitative and quantitative – is used. Concerning the descriptive method, it points out that what are the translation errors in Business English article translation, the researcher intended to show what are the translation errors in Business English article translation from <https://nytimes.com>. and how to proper translate in business article from English into Thai – the properly translation theory for business article.

In descriptive qualitative method, it is doing an investigation by analyzing the data from analytical table. And in quantitative method, it is doing the number of translation errors and presented in percentages to show an overall of the result.

The data in this research is a business article of “A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars” from English from <https://nytimes.com>. The data will be analyzed to find out the errors of translation used by the translator. The analysis is also aimed at determining accuracy of translation. In order to do this, the analysis will be analyzed based on theories of translation errors by Julian House as mentioned in Literature Review. The researchers used purposive sampling procedure to obtain the samples. By using this sampling technique, all data focusing on translation errors totally 47 business article translations were used as the sample for translation.

For collecting data, it used a table for collecting translations in target language (Thai language) of “A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars” from population.

For analyzing data, it compared the source language of “A New Tesla Safety Concern: Drivers Can Play Video Games in Moving Cars” from <https://nytimes.com>. and the target language from population individually in paragraph by paragraph.

Example of data analysis

1. Yada Prakhe 631106631

SL: Not long after buying a Tesla Model 3 this summer, Vince Patton saw a YouTube clip highlighting a feature that took him by surprise: three video games that can be played on the large touch screen mounted in front of the dashboard – while driving down the road. ...

TL: หลังจากที่คุณวินซ์ แพทตัน ได้ซื้อรถเทสลาโมเดล 3 ช่วงฤดูร้อนที่ผ่านมา คุณวินซ์ แพทตัน ก็ได้เห็นคลิปวิดีโอที่เป็นไฮไลท์บนยูทูป ซึ่งเป็นที่เจอร์ที่ทำให้เขาประหลาดใจเนื่องจากคลิปวิดีโอพูดถึงการเล่นวิดีโอเกมบนจอทัชสกรีนขนาดใหญ่ในขณะที่

Research Results

Data analysis of Translation Errors (mentalist views, response-based approach in behavioristic view and functionalistic, “skopos”-related approach, and text and discourse-oriented approaches in descriptive translation studies, post-modernist and de-constructionist thinking and linguistically-and text-oriented approaches.

This category refers to the translation errors from <https://nytimes.com>. and population. In this section, it is divided into three main part -mentalist views, response-based approach and linguistically-and text-oriented approaches)

Figure 1 The result of different meaning

No.	Error Categories	Count	Percentage (%)
1	Mentalist views	122	43.10%
2	Response-based approach	79	27.91%
	- behavioristic view	73	25.79%
	- functionalistic	6	2.12%
3	Text and discourse-oriented approaches	82	28.97%
	- descriptive translation studies	0	0%
	- post-modernist and de-constructionist thinking	0	0%
	- linguistically-and text-oriented approaches	82	28.97%
Total		283	100%

The figure shows the mentalist view were the most for 122 times (43.10%); the response-based approach came the second for 79 times (27.91%) divided into behavioristic view 73 times (25.79%) and functionalistic 6 times (2.12%), and text and discourse-oriented approaches 82 times (28.97%) only one of linguistically-and text-oriented approaches.

Discussions

From the results of the analysis, the translation errors were divided into 1) mentalist views with 43.10%, 2) response-based approach with 27.91%, and 3) Text and discourse-oriented approaches with 28.97%.

The above results revealed that the percentage of the translation errors included. In order to be successful in translation, the translator may have used suitable strategies to translate English articles. For this reason, the percentage of inaccurate is much more than accurate.

Another previous study about translation quality assessment by using House's model (2015) on Literary Texts is Safa Hassan Ahmed Al-Haddad (2019). Her analysis of the source text and target text has revealed a number of mismatches along these dimensions where these mismatches caused a change of the interpersonal functional component. The statement of quality at the end states that the end product was far less than the original work in terms of linguistic employment.

The result agrees with Bodour Abdulaziz Alfaleh about Translation Quality Assessment. His study is the finding of error analysis model is appropriate for the assessment. Comprehension errors, giving an inaccurate meaning, and distorting the meaning are the most frequently detected errors when translating proverbs using partial equivalents and paraphrasing. On the other hand, wrong lexical choice and too-literal translation are the most frequently detected errors when using literal translation.

Recommendations

According to the findings from this research, the present study suggests a number of directions for future studies in the field of translation especially in translation from English to Thai for teachers, students, and translators.

1. Business English article translator

In doing translation, especially translation of business article from English into Thai, translators should be able to translate by using suitable translation strategies. It is unnecessary to keep structure, form and meaning of the source language. Further, it may be spontaneous in target language.

2. The further researcher

This research only focuses on translation of business article from English into Thai in business article. The data were collected from only one data source. Translating business article in Thailand, the translators may use different strategies. It is suggested that the next researcher should conduct the translation of business article from magazines, or newspapers, so that the result of translation of business article from the original text will be compared more clearly that what translation strategy will be used and how accurate to target language. For further, researcher who are interesting in writing similar topic, this study will give contribution to comprehend the business article and also this study can give an inspiration and guidance for the further researcher to be more careful in writing this kind of research. Moreover, the researcher could adjust this research to their translation work.

For students practice in translation courses, students are expected to Understand that analysis on translation is not only about language features. Thus, they

have to study language aspects deeper and translation strategies that appropriate with their kind of paper work. It is expected that this research can be used as a reference for ESL students to add their knowledge dealing with language phenomena which emerge in society.

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An Error Analysis of English Writing of the First-Year English Major Students

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Abstract

The purposes of the present study were to examine the language errors in a writing of English major students and to investigate the sources of the errors. This study focused mainly on sentences because the researcher found that errors in students' sentence construction may lead to miscommunication pieces of writing written by 20 first-year English major students who enrolled in Global Business Correspondence course were collected and analyzed. Results showed that the most frequently committed errors were subject-verb agreement, capitalization, punctuation, spelling, respectively. Limited knowledge of English grammar and vocabulary, and carelessness of the students were found to be the major sources of the errors. Intensive knowledge of English grammar and vocabulary should be taught more to students. This finding also implies that explicit feedback on students' writing errors is needed.

Keywords: error analysis, types of errors, errors in writing

Background of the study

Currently, English is an important aspect of working and studying both in Thailand and abroad. As a result, the written language varies in the context of everyday language use, according to HR NOTE. Asia (2019) mentioned that language is related to business. The skills necessary to enter the international labor market in this era are language skills (Working Skills for Globalization Era), and there are 3 popular languages in the international labor market such as English, Chinese and Japanese.

People nowadays are communicating with foreigners online. Therefore, verbal and written communication is required for effective communication. Allen & Corder (1974) pointed that writing is considered as intricate, complex, and is the most difficult of the language abilities to acquire and learners make various writing errors. According to Corder (1967), errors made by learners are beneficial to teachers, learners, as well as researchers. Errors are evidence of learners' progress of the language learning. They improve learners' writing skill. They can be served as resources for their language learning. Dulay, Burt and Krashen (1982) suggested that errors are flawed side of learner speech or writing and they are parts of conversation or composition that deviate from some selected norm of mature language performance. There are two purposes of studying learners' errors proposed by Dulay, Burt and Krashen (1982), they are: 1) providing data from which inferences about the nature of the language learning process can be made and 2) indicating to teachers and curriculum developers which part of the target language students have most difficulty producing correctly and which error types detract most from a learner's ability to communicate effectively.

A number of research studies, as a result, have been conducted both to find out causes of error analysis to help EFL learners overcome difficulties in their writing. For instance, some studies try to identify types of the most problematic errors in learners' various types of writing such as essays and academic writing. The errors are found in lexical and grammatical errors, verb agreement and punctuation. (Hamed, 2018; Owe-Ewie and Williams, 2017; Singh et al, 2017; Khumpee & Yodkumlue, 2017; Sermsook, Liamnimit, & Pochakorn, 2017; Suvarnamani, 2017; Amiri and Puteh, 2017; Zafar, 2016; Iamsui, 2014; Bumroongthai, 2011; Hamzah, 2012)

In business context, beyond the scope of essays and academic writing, there are also writing mistakes such as misspellings and incorrect grammar. For this reason, it is interesting to focus on analyzing error on business writing. Global Business Correspondence course is valuable source in studying and analyzing the nature of errors in English writing among students because of authentic language use in business. Errors provide evidence to researchers on how learners learn and acquire the language. For researcher, understanding students' weaknesses in writing English sentences and applying the results to build on the English Writing Grammar course to lay a foundation for grammar to compose correct sentences. The researcher develops English writing training course to reduce mistakes in writing English further.

Research Questions

1. What type of writing errors committed by English major students?
2. How frequent do writing errors occur in English writing of English major students?

The Purpose of the study

1. To identify errors in English writing of English major students.
2. To identify the frequency of error in English writing of English major students.

Literature Review

Literature review of this research will focus on three areas of study: error analysis, type of errors and writing.

Error Analysis

Several scholars define the term of error analysis in various ways.

Crystal (1987) defined that error analysis is a technique used for recognizing and categorizing the unacceptable forms produced by foreign language learners.

Corder (1967) stated that Error Analysis has two objects: Theoretical and applied. The former is to understand what and how a learner learns when he studies an L2. The latter is to enable the learner to learn more efficiently by using the knowledge of his/her dialect for writing purposes. He also showed error analysis as useful information for three subjects: for teachers, it keys them on the improvement of the students; for researchers, it supports evidence as to how language is acquired or learned; for learners, it provides them with resources to learn.

Chan (2004) argued that the study of error analysis is one of the most valuable methods based on the errors committed by learners in their written or spoken discourse. After examining these errors, the researcher will have better understanding of the participants' linguistic weakness so that instructors, syllabus designers, and textbook writers will be able to address these problems in future.

Type of Error

Corder (1967) stated that there are two types of errors: performance errors and competence errors. The first are made when learners are tired or hurried. The second are more serious since they reflect inadequate learning.

Burt and Kiparsky (1972) made a distinction between two types of errors: Global errors which hinder communication by causing confusion in the relationship between and among the parts of discourse such as "wrong word order in sentence" and Local errors such as the ones that "do not go beyond the clause or sentence level" The local errors affected one element or constituent in a sentence which usually did not blend the meaning of the sentence, whereas the global errors affected the meaning of the whole sentence. An example of a global error is if a student says, "I buy car, after I have trouble with car"; it is apparent that there is a problem between the independent and the dependent clauses. Global errors should almost always be corrected because they cause confusion regarding the relationship between constituent clauses, whereas local errors occur within a clause and should be corrected on a case-by-case basis. Once the global errors are addressed, the utterance becomes a much more manageable, "After I buy car, I have trouble with car." The remaining uncorrected article and tense errors in this example are local, so the teacher needs to evaluate their relative importance as they relate to other factors before addressing them.

Politzer and Ramirez in Dulay, H et al. (1982: 147) introduce their classification into three main categories of error, i.e.: morphology, syntax and vocabulary.

Runkati (2013) categorized the errors found in her study into two main types. The former type dealt with errors at the sentential level which were fragments, run-ons, subject-verb agreement, word order, tenses, capital letters and punctuation. The latter one was errors at the word level, such as articles, prepositions, word choices, nouns and numbers.

Argawati &Suryani (2017) state that writing is producing something in written form so that people can read, perform and use it. However, many students still make errors in English writing. There are many causes in occur of errors.

Methodology

The pieces of written work were analyzed based on Dulay, Burt and Krashen (1982) "Error Analysis". In this study, some examples of written work in business context are students. The material used in this study has been collected from written

work of students in business context in Global Business Correspondence course. The more there are a variety of student's work, the more knowledge we will get. The researcher analyzed and identify errors and source of error in English writing of English major.

Data Collection

The data were collected from first-year English major students, 20 students who enrolled in Global Business Correspondence course; 80 pieces of written work of October 2020 to November 2020 in order to identify errors and frequency of error in English writing of English major students.

Data Analysis

The analysis was based on the work of Dulay, Burt and Krashen (1982) "Error Analysis". The observation approach used to accumulate data from written work in business context. 80 pieces of written work were selected. In this study, all of the 80 pieces of the students' written work were marked by the researcher. Each sentence was examined word by word. The researcher interpreted and analyzed to identify the frequency of sources the errors found in writings.

Discussion

Errors Frequently Found in English Sentences

After the analysis of errors, four types of errors were found in English sentences written by students in the business context. The error at the word level was spelling. The errors at the sentential level comprised subject-verb agreement, capitalization, and punctuation. The table below demonstrated types, frequency, percentage and Rank of the errors.

Table 1 Types, frequency, percentage, and rank of the errors found in the sentence.

Types of Errors	Frequency	Percentage	Rank
Errors at the word level			
1. Misspelling	29	24.16	1
Errors at the sentential level			
1. Subject-verb agreement	37	30.83	1
2. Capitalization	33	27.50	2
3. Punctuation	21	17.50	3
total	120	100	

As shown in Table 1, errors at the word level, misspelling was the most frequently-made error type (24.16%). For errors at the sentential level, subject-verb agreement was the most frequently-made error type (30.83%), capitalization (27.50) and punctuation (17.50) respectively. For errors at the sentential level, a deeper analysis of

the errors revealed that the three types of errors found to be the greatest difficulties of the participants were subject-verb agreement, capitalization and punctuation respectively. For errors at the word level, a deeper analysis of the errors revealed that misspelling found to be the difficult errors found in writing.

Discussion

There is much more the researcher could say about this paper through analyzing the error found in English sentences.

Regarding misspelling the researcher found in error analysis. Carelessness seemed to be the source of the errors. Besides, limited knowledge of English vocabulary is another crucial source of students' errors. Weigle, 2002 mentioned that very limited knowledge of English grammar and vocabulary leads the writers to commit errors.

Example 1: Quoted retes will remain valid for a period of 3 months.

(Quoted rates will remain valid for a period of 3 months.)

Example 2: I brought television at your store last week.

(I bought television at your store last week.)

Example 3: Thank you for your interrest in the product.

(Thank you for your interest in the product.)

Example 4: We imprort guitars with the following model.

(We import guitars with the following model.)

Example 5: I have to carry on my family bisness.

(I have to carry on my family business.)

Example 6: If there is anything we can do to ficilitate your order, We would be pleased to assit you in anyway.

(If there is anything we can do to facilitate your order, We would be pleased to assit you in anyway.)

The six examples above present the misspelling of students when writing in sentences. All of the given examples may be due to limited knowledge of English vocabulary. Weigle, 2002 mentioned that very limited knowledge of English grammar and vocabulary leads the writers to commit errors.

Regarding subject-verb agreement the researcher found in error analysis. The examples demonstrate the writers' confusion about the rules of the subject-verb agreement.

Example 9: I am have enclosed a bank draft for 9000 THB.

(I have enclosed a bank draft for 9000 THB.)

Example 10: Most of the people lives in the countryside.

(Most of the people live in the countryside.)

Example 11: Buyer have to increased your order to 50,000 per month.

(Buyer have to increase your order to 50,000 per month.)

Example 12: Buyer not willing to pay.

(Buyer is not willing to pay.)

Example 13: Could he come to see me at my office by that time? Yes, he can.

(Could he come to see me at my office by that time? Yes, he could.)

Example 14: Have you receive the agenda?

(Have you received the agenda?)

The possible explanation for Example 10 is the faulty application of rules. The writer might think that 'Most of the people' is plural, so the writers added *s* after the verb. In contrast, example 14 writer may be influenced by the first language. In Thai, the form of verbs remains unchanged with any subjects. Therefore, the writer did not change the form of the verb.

In the area of capitalization, the writer is able to use word choices to communicate the meaning but the writers have inadequate knowledge of the English rules. These led to error in writing.

Example 14: You can be assured that You definitely get a high-quality product.

(You can be assured that you definitely get a high-quality product.)

Example 15: I'm free This weekend.

(I'm free This weekend.)

Example 16: Of course i look forward to our meeting

(Of course I look forward to our meeting)

Example 17: We will deliver to you Through the shipping system by air freight, it takes about 2 weeks to transport and the accounting will send you the invoice before shipping.

(We will deliver to you through the shipping system by air freight, it takes about 2 weeks to transport and the accounting will send you the invoice before shipping.)

Example 18: So, I would like an appointMent to Meet at your company.

(So, I would like an appointment to meet at your company.)

Example 19: Jenny kim from YG company.

(Jenny Kim from YG company.)

In the area of punctuation, Punctuation marks which were found to be the most problematic were question mark and period. The writers convey incomplete knowledge of English might apply the Thai rule when they wrote these English sentences.

Example 20: Do you have in stock.

(Do you have in stock.?)

Example 21: May I speak to Ms. Laurie, please.

(May I speak to Ms. Laurie, please.)

Example 22: The deadline for submission is October 30, if your design images match the concept

(The deadline for submission is October 30, if your design images match the concept.)

Example 23: We will instruct you to continue producing samples

(We will instruct you to continue producing samples.)

Example 24: Could you please confirm your contact detail

(Could you please confirm your contact detail?)

Example 25: If you have any questions you can inquire directly with this email

(If you have any questions, you can inquire directly with this email.)

As all the mentioned above, the sentence in Example 22,23 have no period. This phenomenon can be explained that in Thai, a period is not used to signal the end of a sentence. The sentence in Example 20,21,24 have no question marks. Thai writers are not familiar with these punctuations. Then the writers ignore to add them at the end of the sentences.

Conclusion

The present study aimed at analyzing errors committed by students when they produced pieces of writing in English in business context, and to seek for the frequency that lead to the errors. The findings showed that the students made different types of errors such as subject-verb agreement, capitalization, punctuation, spelling, respectively. From these findings, limited knowledge of the target language and their carelessness may be the major source leading to writing error in business context. This can result in errors that could cause written miscommunication. Dulay, Burt and Krashen (1982) state that the analysis of errors is the method to analyze errors made by EFL learners when they learn a language. Not only can it help reveal the strategies used by learners to learn a language, it also assists teachers as well as other concerning people to know what difficulties learners encounter in order to improve their teaching. The finding can uncover real problems learners have in their writing and develop the next writing course effectively.

Recommendation

The future studies should employ different essay genres to find and compare any similar or contrastive result. Besides doing the error analysis of English essays, the researchers may analyze the common errors found in the other text types. Different written genres and text types have their dissimilar nature and patterns. The findings of these future studies will provide various dimensions of problematic areas encountered by learners. Therefore, all benefits derived from the research results can lead the English lecturers, the course syllabus designers, and the researchers to be able to improve students' English writing proficiency.

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Forecasting Model for the Value of Durian's Export of Thailand

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Abstract

This study aims to create a model for forecasting the value of durian exports in Thailand in advance for 5 years, 2020-2024. The data also was illustrated the trends from 2015-2019. The result revealed Trend Analysis is most suitable for forecasting models. When using Trend Analysis to find forecasting equation for the value of durian export value time series of Thailand, the results found that Linear Trend Model, Quadratic Trend Analysis and The exponential growth curve method by Quadratic Trend Analysis method was the most suitable model. Therefore, forecasting the value of durian exports of Thailand was given, MAPE of 4 times, MAD of 835 times, and MSD of 946648 times.

Keywords: forecasting model, the value, durian's export of Thailand

Introduction

Having accurate information about the agricultural situation is very important (Co. H. C. and Boosarawongse. R., 2007). The predicting trends of agricultural product will allow to make right decision in economy nowadays (Gaither N. and Frazier G., 2003). The aims of the paper are to demonstrate the trend in durian export from Thailand to specific period and to plan our strategy and policies accordingly to promote durian production and export.

Thus, majority of exporting product is agricultural product. Currently, Thailand has exported durian to the world market which worth more than 40 billion baht and has expanded more. However, the production of durian in Thailand is still unstable export volume, therefore, forecasting future values will give an idea of the situation.

Moreover, having accurate information about the agricultural situation is very important. The predicting trends of agricultural product will allow to make right decision in economy nowadays. The right decision making about targeting and direction policies should be on the accurate information and current database and knowledge from inside and outside the country. (Munir, K., Khalid, M., Mussawar, S., Naushad, K. and Jehan, Z. K., 2008)

Therefore, this study would address suggestion for most suitable for forecasting models in order to identify what accurate situation of the value of durian exports in Thailand in the future.

Objectives

1. To create a model for forecasting the value of durian exports in Thailand
2. To forecast the export value of durian in advance for 5 years, 2020-2024

Method

The Collected Data

The statistical data of durian export value of Thailand in and import value and production volume in India by Tridge (2021) was used for forecasting. Forecasting of durian export value of Thailand in 2015-2019 and import value and production volume, which are time series data.

The Analysis of Time Series by Decomposition Method

Decomposition method was used for analyzing time series data. Mean Absolute Percentage Error (MAPE) would choose the best model to forecast. The analysis of time series by decomposition method is the applied analysis of regression and time series analysis together. The time series was split into parts with two basic models, a multiplicative model and an additive Model. Regression analysis was applied by the ENTER method for selecting a forecasting model. Applying regression analysis with time series analysis determines trend indication variables. Algorithm for constructing a time series analysis model by decomposition method used Minitab to process statistical data.

Trend Analysis - Growth Rate Analysis

The statistical tools were used for the analysis of the secondary data about growth rate of import, export and quantitative production of durian from 2013 to 2020 at the national level. To compute the compound growth rate from these data, the following models were Linear Trend Model, Quadratic Trend Model, and Exponential Growth Curve Model.

Diagnostic Checking

Diagnostic checking is to investigate the adequacy or suitability statistically by verifying the assumptions and properties, including the relationship. If the model is not consistent with the assumptions in statistical or incompetence, it will be a new and revised model. The need to define a new trial and the parameters of the new model until the model is consistent with assumptions and qualifies statistically. When we gain an appropriate sufficient statistical model then used to forecast future values.

Over time, it should be checked whether the model forecasters are still adequate by using new data, if it finds a suitable excuse for new adjustment. In this study, we use MAPE to consider a fit forecasting model with the lowest MAPE. It will take a prophet to predict the value of durian import, exports, production advance further.

For all methodology as shown in the flow chart, figure 1.

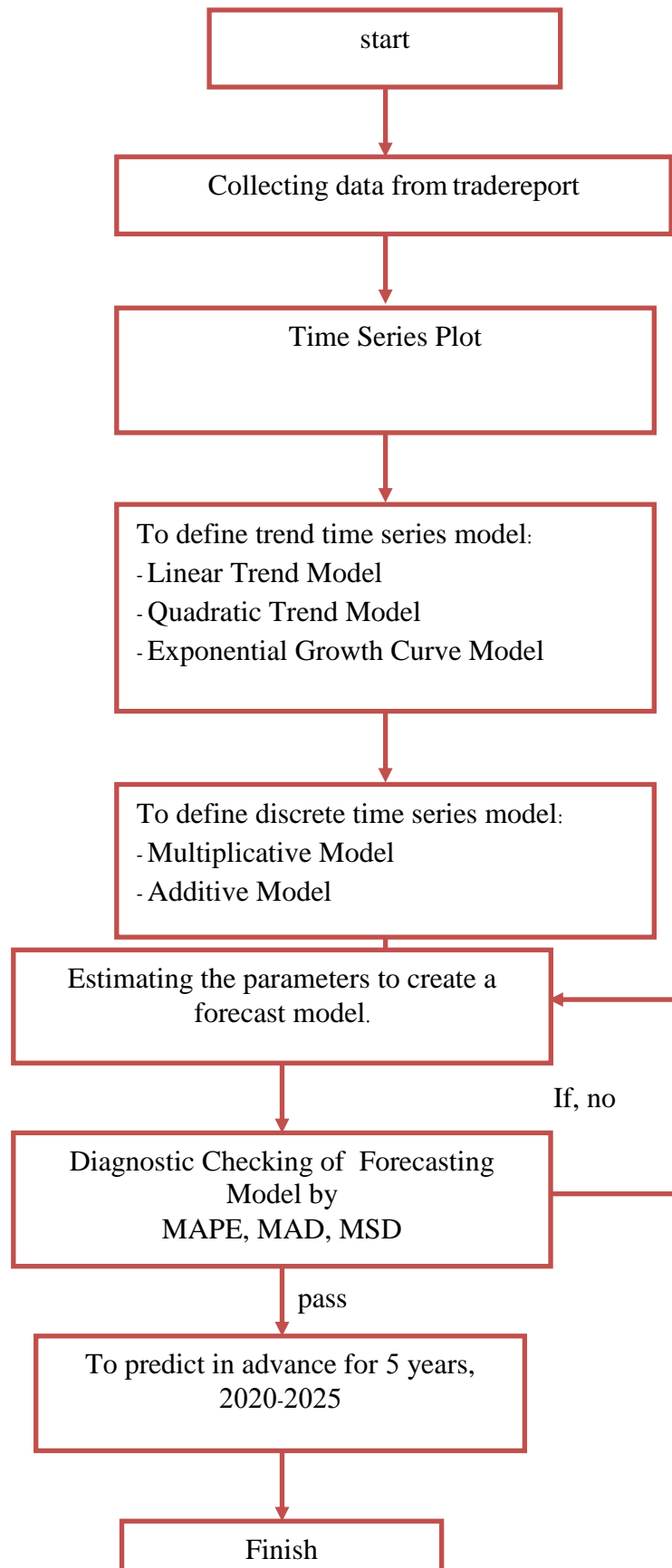


Figure 1 The flow chart of research method

Result

1. The results of the time series model analysis of the value of durian exports.

From the data collection of the value of durian exports of Thailand from 2015 to 2019, the data of the export value of durian collected annually that was plotted as a time series graph (Time Series Plot) as figure 2.

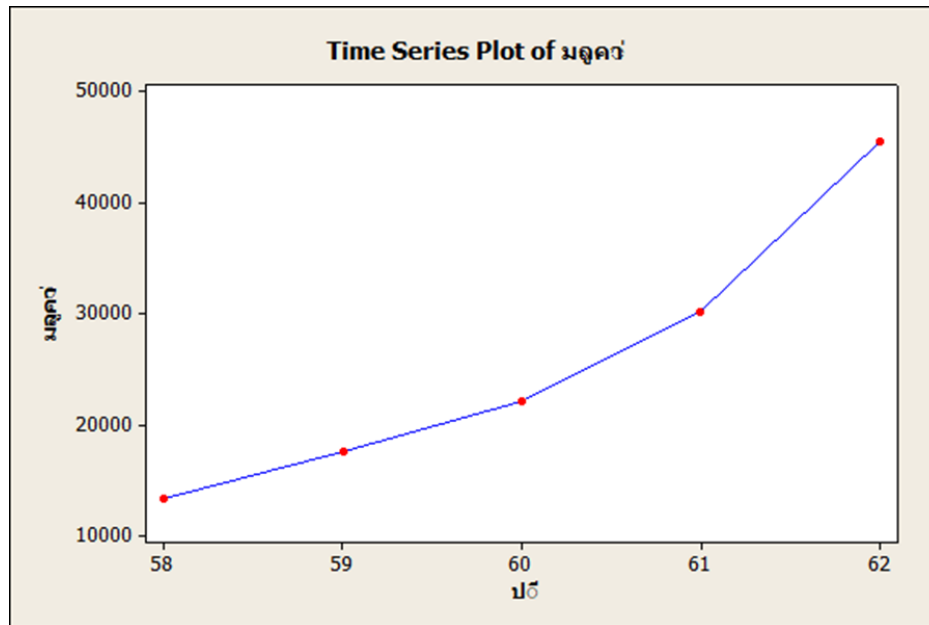


Figure2 Trend of Durian Export Value of Thailand 2015 – 2019

From figure2, trend of Durian Export Value of Thailand 2015 – 2019 was increasing. Moreover, there is no seasonal influence related to the value of Thailand's durian exports. From the year 2015 – 2019.

2. The result of Trend Analysis Model by Linear Trend Model

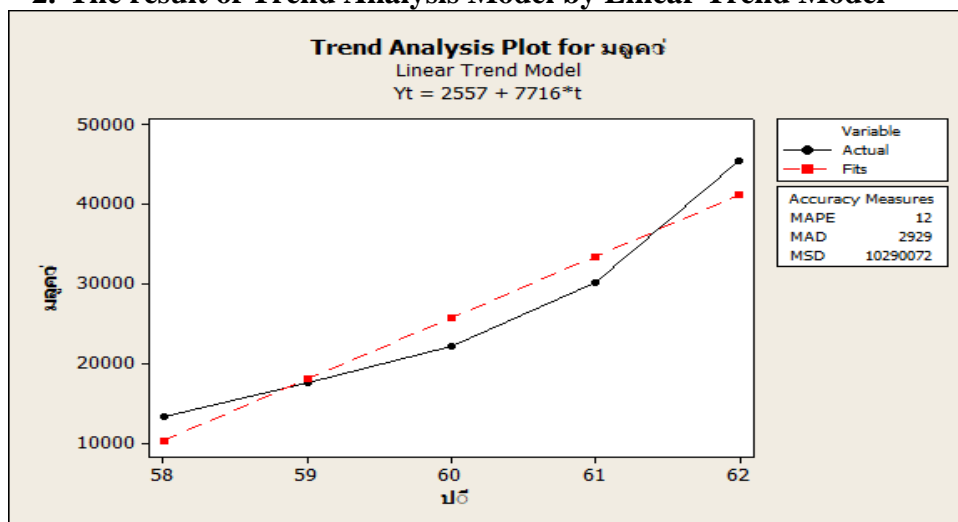


Figure 3 Trend of Durian Export Value of Thailand 2015 – 2019 by Linear Trend Model

From figure 3, Trend of Durian Export Value of Thailand 2015 – 2019 by Linear Trend Model showed that actual values and Fits were closed. Trend of durian export value increasing dramatically. The accuracy of the 3 models were MAPE is 12, MAD is 2929, and MSD is 10290072. The equation of the forecast model can be shown as follows;

$$\hat{Y}_t = 2557 + 7716t \quad (4-1)$$

3. The result of Trend Analysis Model by Quadratic Trend Model

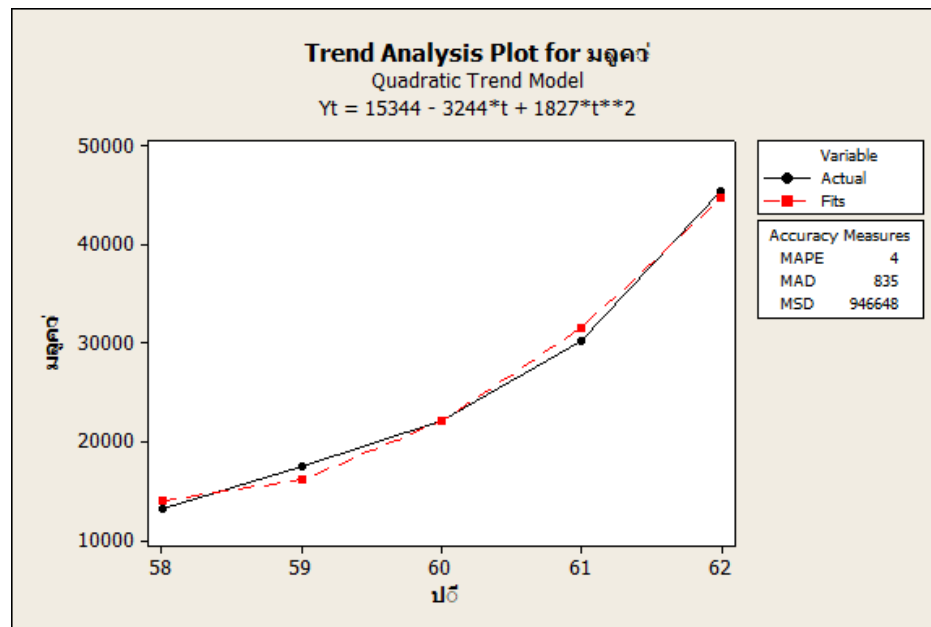


Figure 4 Trend of Durian Export Value of Thailand 2015 – 2019 by Quadratic Trend Model

From figure 4, Trend of Durian Export Value of Thailand 2015 – 2019 by Quadratic Trend Model showed that actual and Fits values were closed. Trend of durian export value increasing dramatically. The accuracy of the 3 models were MAPE is 4, MAD is 835, and MSD is 946648. The equation of the forecast model can be shown as follows;

$$\hat{Y}_t = 15344 - 3244t + 1827t^2 \quad (4-2)$$

4. The result of Trend Analysis Model by Exponential Growth Curve Mode

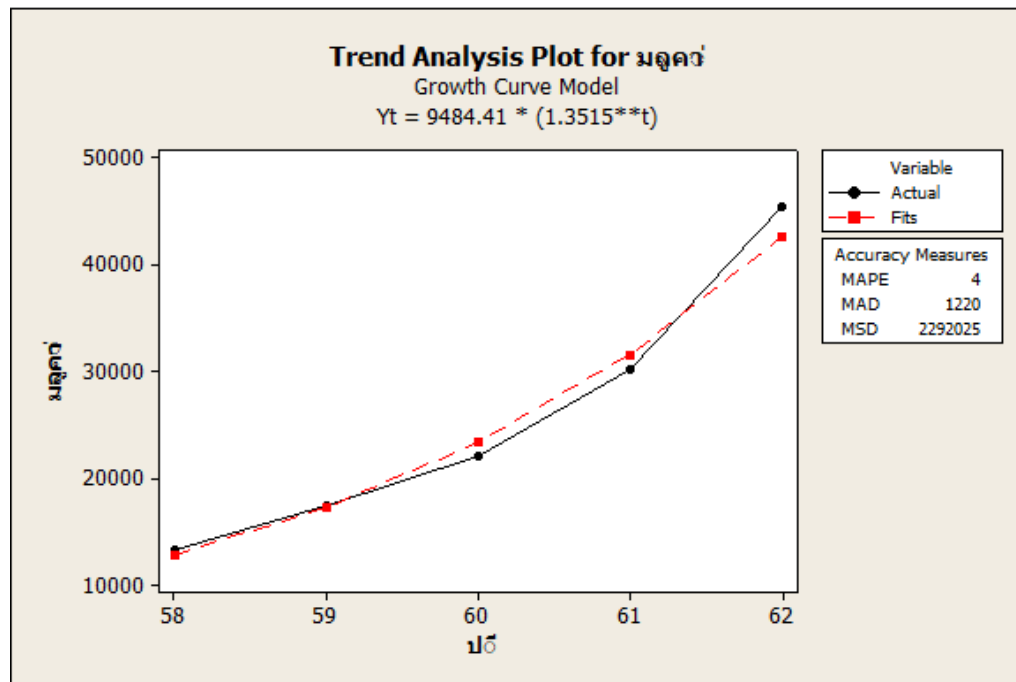


Figure 5 Trend of Durian Export Value of Thailand 2015 – 2019 by Exponential Growth Curve Model

From figure 5, Trend of Durian Export Value of Thailand 2015 – 2019 by Exponential Growth Curve Model showed that actual and Fits values were closed extremely. Trend of durian export value increasing dramatically. The accuracy of the 3 models were MAPE is 4, MAD is 1220, and MSD is 2292025. The equation of the forecast model can be shown as follows;

$$\hat{Y}_t = 9484.41(1.3515^t) \tag{4-3}$$

5. The Result of Decomposition Model Analysis)

The data of durian export value of Thailand was analyzed by decomposition method for analyzing time series data which was split into parts with two basic models, a multiplicative model and an additive Model. Component Analysis was used for plotting graph by using original data. Seasonally Adjusted Data was used to adjust the data. The result was shown in figure 6.

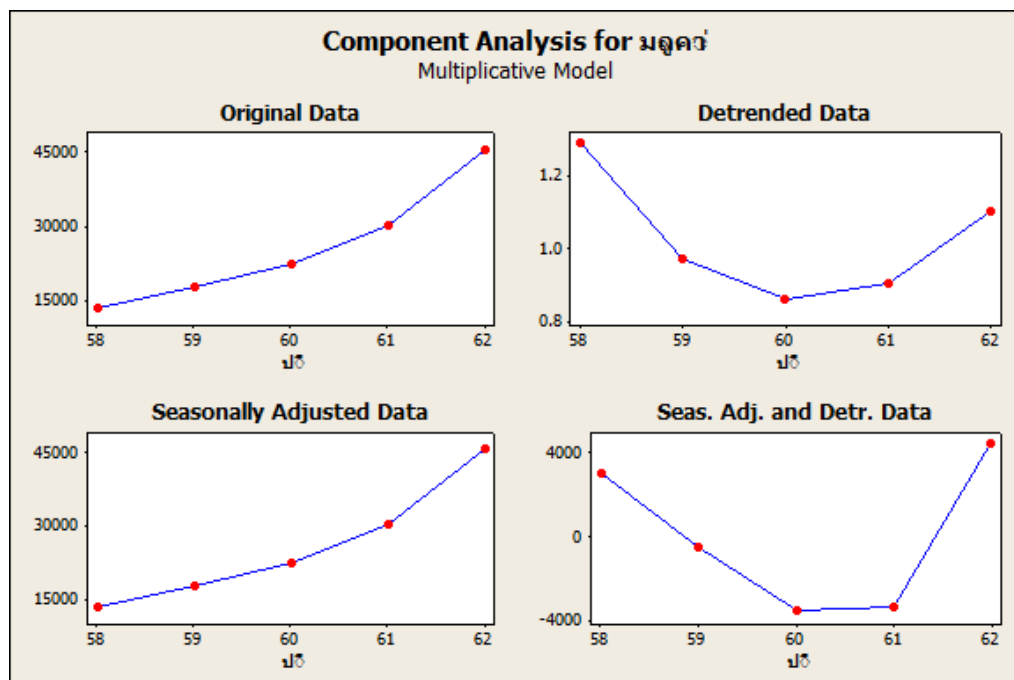


Figure 6 Time Series Models of Durian Exports Value of Thailand, 2015 – 2019, by Multiplicative Model

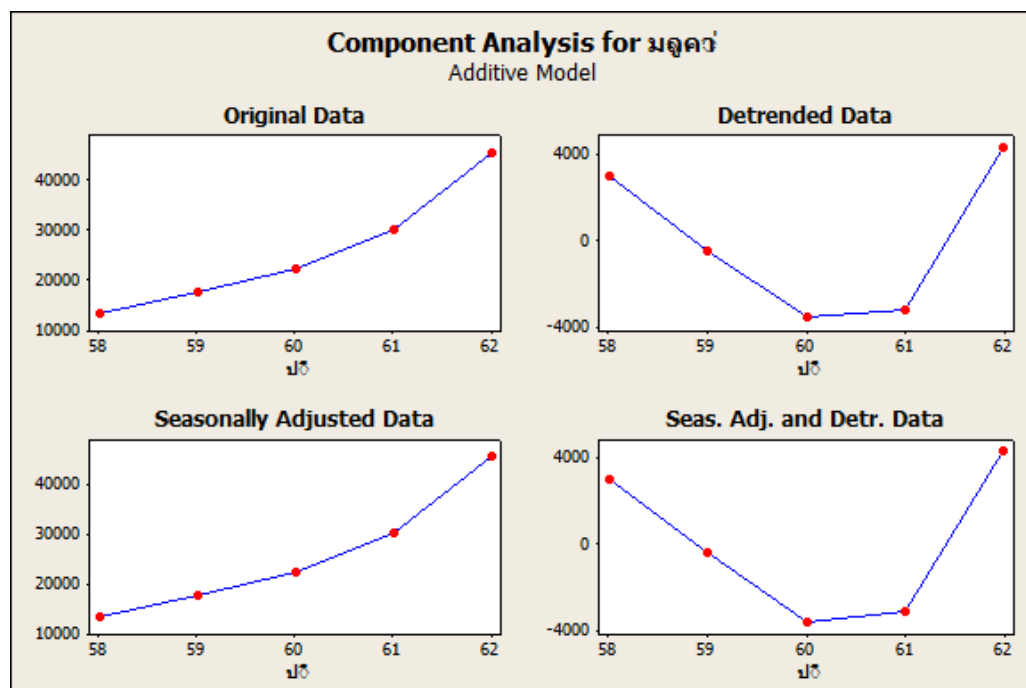


Figure 7 Time Series Models of Durian Exports Value of Thailand, 2015 – 2019, by Additive Model

From figure 6-7, time series models of durian exports value of Thailand, 2015 – 2019, by multiplicative model and additive model showed that the characteristics of the graphs were not different, indicating that the time series data on the value of durian exports of Thailand 2015 - 2019, analyzed by both Multiplicative Model and Additive Model are not suitable for forecasting.

2. Comparison of trend forecasting models

Table 1 Comparison of accuracy of 3 trend forecasting models

Trend Model / Accuracy Measures	MAPE	MAD	MSD
Linear Trend Model	12	2929	10290072
Quadratic Trend Model	4	835	946648
Exponential Growth Curve	4	1220	2292025

From table 1, Quadratic Trend Model is the most accuracy(MAPE = 4 , MAD = 835 and MSD = 946648) which means Quadratic Trend Model is fit model to forecast durian exports value of Thailand. The equations of the forecast model can be displayed as follows:

$$\hat{Y}_t = 15344 - 3244t + 1827t^2 \quad (4-4)$$

3. Trend Forecasting by Quadratic Trend Model in advanced 5 years

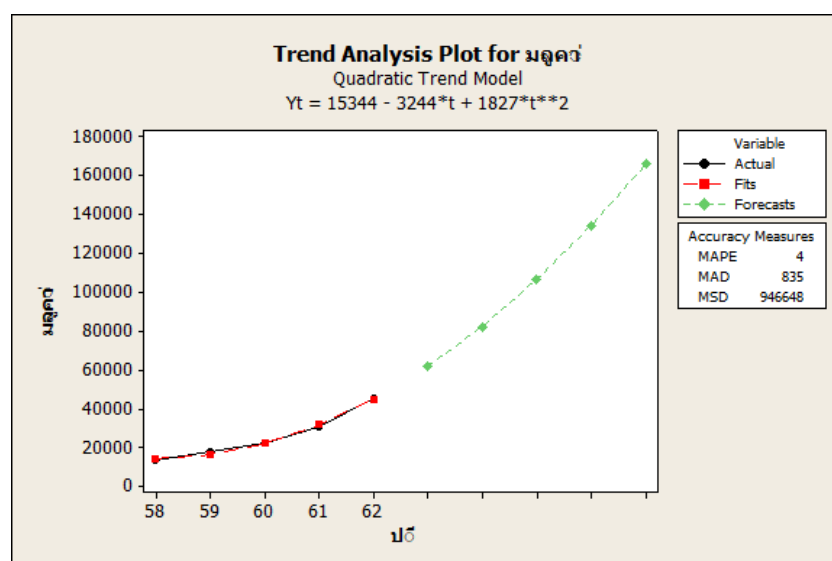


Figure 8 Trend Forecasting by Quadratic Trend Model in advanced 5 years, 2020-2025

From Figure 8, it is found that the Quadratic Trend Model for 5 years in advance from 2020 - 2024, of the value of durian exports is predicted that tends will

increase. When considering the actual and Fits tend to be related in the same direction.

Table 2 Trend Forecasting of the value of durian exports for 5 years in advance from 2020 – 2024 by Quadratic Trend Model

year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
the value of durian exports	13246.4	17505.8	22098.4	30187	45485.5	61639.54	82142.58	106299.1	134109	165572.4

From Table 2, showing the forecast value of Thailand's durian export value 5 years in advance from 2020 - 2024 by using the Quadratic Trend Model will be increasing by 61,639.54 million baht. In 2021, the value of durian exports increased by 82,142.58 million baht. In 2022, the value of durian exports increased by 106,299.1 million baht. In year 2023, the value of durian exports increased by 134,109 million baht, and in the year 2024, the value of durian exports increased by 165,572.4 million baht.

Discussion

This study indicated that Trend Analysis is most suitable for forecasting models. When using Trend Analysis to find forecasting equation for the value of durian export value time series of Thailand, the results found that Linear Trend Model, Quadratic Trend Analysis and The exponential growth curve method by Quadratic Trend Analysis method was the most suitable model. Therefore, forecasting the value of durian exports of Thailand was given, MAPE of 4 times, MAD of 835 times, and MSD of 946648 times.

Therefore, Trend Analysis by Quadratic Trend Model suit for predicting the data used in this study because it gives lesser error than the model above.

Recommendations

1. Trend Analysis is the priority to consider as the pattern of trends in accordance with the trend characteristics of the data, including consider the seasonal influence in order to make forecasting results that are more accurate and effective.

2. In further research, other time-series models should be included in the analysis, such as the Moving Average method, the Box-Jenkins time-series method, and the Holt-Winter method.

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The Environmental Attitudes Influence Sustainable Development, Equitable Access to Resource, and Conservation: A Proposed Conceptual Framework

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Abstract

The purpose of this academic article is to review the existing literature on determinants that the environmental attitudes influence sustainable development, equitable access to resource, and conservation. This paper uses a systematic review of articles on the environmental attitudes that influence sustainable development, equitable access to resource, and conservation. The purpose of this systematic review is to collect and summarize all empirical evidence from literature that fits the context of this study. The findings of the study have been weaved together in a proposed framework for the role of environmental attitudes on sustainable development, equitable access to resource, and conservation. This academic article is a literature review, a framework on the determinants of sustainable development, equitable access to resource, and conservation empirically. There are few research-based studies on the determinants of sustainable development, equitable access to resource, and conservation. This paper has identified key variables that play a significant role in helping sustainability perform effectively.

Keywords: environmental attitudes, sustainable development, equitable access to resource, and conservation

Introduction

Today, the world is focusing on the campaign to conserve natural resources and environmental factors that affect the environment. Not only economic factors that affect the environment but also the consumption of companies and individuals have contributed to the problems with resources and the environment. At present, there is global warming, a problem that has intensified the current make-up of both public and private, as well as people being alarmed to consume more environmentally friendly. Suyong (2012) reported that many companies start switching over to sustainable packaging due to environmental considerations. Even Thailand also concerns about global warming and shortage of natural resource that it make number of eco-friendly products appeared increasingly (Euromonitor International, 2013).

Therefore, the concept of “being green” has happened in society. Ann-Charlotte & Christine (2006) pointed out that green idea can be constructed in the different social boundaries, beliefs, and attitudes. The battle of the green idea was also conducted continuously and intensely. Some groups support the concept of green economic growth in contemporary capitalism, which can lead to green thinking to preserve the environment. Currently, many companies have embraced the trend of green thinking to market their products and increase their business. Some have offered technology to protect the environment, but not everyone agrees with this attitude. In contrast, some believe that technology could lead to significant structural

problems that have caused the ecological crisis because they have not considered the limits of biological capacity.

Official government policy was a factor leading to green, environmentally conscious behaviour, and awareness was the most important factor (Tan & Lau, 2010). In addition, government policy is conducive to the growth and investment of capital, regardless of social fairness. Therefore, the environmental dimension must be linked with social fairness. Moreover, the benefits of economic growth do not reach the poor, and the poor often bear more burdens for the environment than any other group in society.

Joan (2002) stated that the idea insulted the poor because the most of poor protect the environment actually and a good environment should not be a privilege of the wealthy people and high income countries only. Even though some rich country perhaps emphasized on services business and can use technology to emit less waste, but may actually be throwing the burden on the environment and the destroyed nature in other countries through investment and trade. For example, when the weather is hot, the poor will grow the plant or tree to make environment around their house cooler, on the other hand, the rich will buy air-conditioner. Consumption is the use of the earth's resources. Consumption occurrence every day that means the resources are being used that we do not have the resources to balance the population. In addition, after the consumption make up waste, which causes an increase in pollution? Therefore, if we create a real green consumption, it will be beginning to change the world to be green.

Culture is a connection between human and environment (Kay, 1996). Attitudes toward the environment are derived from the culture of society, which leads to a concept of the environment that also influences the social environment. Some believe that people should live with nature because it is the best way to protect the environment. Another pointed out that the environmental problem can be solved by new technologies and. For example, if we need to reduce CO₂ emissions, we introduce new technologies that use renewable resources, solar energy, wind power, and nuclear power (Luke, 1994). The group "Being Green" believes that the main problem of the environment should not be solved only by technology, but the main cause of environmental problems is in society, which is caused by consumption and production (Luke, 1994). Therefore, it is an ecological attitude to find a way to preserve and maintain the environment as much as possible, as the society intends to do in some way. People's attitude and sensitivity can slowly influence the environmental problem (Philip, 2007). People become aware of environmental pollution and try to find a way to prevent it (Philip, 2007). Moreover, some believes "the earth is alive and human being should be encouraged to recognize their essential connection with the rest of nature" (Philip, 2007, p.92).

It would be better situation nowadays, if everyone understands the attitude towards the environment properly and people have equal access to resources, solving environmental problems will be easy. Environmentally friendly consumer behavior will lead to the common development and change of consumption habits that are environmentally friendly. According to Kay (1996), "how human society should be organized is also a question of how environmental problems should be addressed" (p.35). Thus, environmentally conscious behavior means that people strive to protect and preserve the environment by taking responsibility. The first step should be to determine how attitudes toward the environment protect and preserve the environment, which has the greatest impact on environmental changes and benefits.

Therefore, the aim of this paper is to construct a conceptual framework from the relevant literature to identify the determinants whether the person attaches to nature influences their environmental attitudes toward sustainable development and equitable access to resource, and hence to conservation in Thailand.

Literature Reviews

The ideological environment is about protecting and preserving the environment. Nature and the environment have to do with government or political authority. In addition to individuals, NGOs and other groups that differ in ideology, goals and methods. When environmental ideology has been elevated to a political level, it is political goals that are sometimes in conflict. In addition, the economic and social problems have not yet been solved, or the effects of changing the law are not yet satisfactory to most people, so they have become a political issue. Thus, environmental issues have been controversial in politics over the years. The causes and the different factors that cause these problems should be studied in order to reach a better understanding and find the right solutions. Therefore, it is interesting that the measurement of these three constructs as aspects of environmental attitudes has also been studied.

Nowadays, the term environmental protection in its broadest sense refers to the concern that the environment should be protected from human activities and preserved for the future. Therefore, the terms ecocentric, anthropocentric, and technocentric have been used in reference to attitudes toward the environment. These three attitudes are concepts for the development, existence of human life (Kay, 1996).

Eco-centric

Timothy (1976) quoted “eco-centric is modern environmentalism of mid-nineteenth century” (p.3). This focus on the relationship between nature and society through the encounter with nature for economic development and quality of life, reduces the impact on the environment. The natural world is holistic, considering the interaction of all elements. Ecocentrism considers the nature of the system of relationships of all things, therefore, the system is a unified, holistic. (Timothy, 1976). Alexander (2005) believes that ecocentricity should be actively promoted to achieve sustainable community development at all levels.

In summary, ecocentrism focuses on ecological constraints and solves problems by seeking patterns of existence that are consistent with ecological laws. The sustainable development approach is the balance of ecosystems. This attitude assumes that people and all living things in the world live together in the form of a natural and ecological community. If something is destroyed, the whole system is also destroyed. Humans are a part of nature and have no right to destroy this balance and at the same time. People should treat it with respect.

Anthropocentric

Katherine & colleen (2001) stated that “anthropocentric ethics focus on how nature affects humans”. Anthropocentric considered human is the most important and be the center of the universe (Campbell, 1983)

In conclusion, the sustainable development approach based on the development of the quality of human life is essential. Anthropocentric philosophy is to take the man at the center of everything. Any action has taken to meet or support human needs. Thus, the preservation of natural resources and the environment is for the benefit of human life

now and in the future. They believed that development should be based on three main principles, conservation, resource use efficiency, and good management.

Techno-centric

Nowadays, it is a practical notion of integration, ranging from sustainable goals to technical and planning strategies to a technology-driven lifestyle (Chi, 2004). It is possible that technocentrism also supports the environment by using technology to build, plan, and promote environmental sustainability (Chi, 2004). According to Timothy (1976), technocentrists pay close attention to technology, humans and nature are separate, and there are no technical or environmental boundaries. Even in the international market, they need advanced and sophisticated technologies and innovations to improve the standard of their products and compete in an international environment (Euromonitor International, 2013, p.1).

However, some believe that technology has to do with environmental protection, preventing waste, and controlling the earth for humans (Timothy, 1976). Green technology is introduced as clean, environmentally friendly technology, for example, nuclear energy is environmentally friendly because it does not emit CO₂ (Luke, 1994). Most governments and the public are encouraged to use science and technology to solve environmental problems (Philip, 2007).

For example, some companies need to invest in machinery, research and development in environmental technology. Coca-Cola (Thailand) Ltd. has worked with Thai Namthip Co Ltd. to introduce new technology that reduces the use of plastic in production by 13-20%. As a result, the new packaging used less plastic than the previous design (Euromonitor International, 2013). In addition, Euromonitor International (2013) reported that Thai Namthip Co Ltd invested up to Bt700 million in new machines using the new "Eco-Crush" technology to produce lightweight PET bottles for bottled water. The new packaging uses 35% less plastic than the previous design; it is also 100% recyclable and can be crushed after use to save space.

Some companies have technology for cartons that are environmentally friendly. Idea paper, cartons and wrapping paper use special packaging paper that uses fewer chemicals in bleaching the pulp. The Idea paper is also printed with environmentally friendly ink; the wrapping paper is printed with water-based ink and the carton is printed with soy ink (Euromonitor International, 2013). In addition, some retailers such as Tops Market, Tops Super, Central Food Hall, Gourmet Market, and Lemon Farm are more active in promoting biodegradable plastics to consumers. (Euromonitor International, 2013). In China and Taiwan, many companies also tend to be environmentally friendly by using their own innovations. They invest in environmental technologies, which is an alternative management strategy (Terence Tsai, 2002).

Michael (2008) mentioned that technology is a way to create the world's wealth. Technology leads to three environmental strategies: pollution prevention, product stewardship, and clean technology, all of which move a company toward sustainability (Michael, 2008). However, technology is not just one thing that contributes to sustainability; changing individual consumer behavior can also heal the world (Michael, 2008).

Sustainable development in the concept of technocentrism has confidence in the ability of science and technology to solve environmental problems through technologies. Humans have the ability to control nature and be guided by human needs. Technocentric environmental problems that arise can always be solved late.

But sometimes this concept is in contradiction with the economic, social and political realities because it exploits the underprivileged people, the poor or the farmers. It can also harm biodiversity and ecosystems.

Sustainable development

Technological advances and marketing mechanisms contribute to growth, production and consumption that negatively impact the environment, human life, animals and plants. Sustainable development is an idea to prevent the world from ending. It is about using natural resources and the environment to improve people's quality of life. To have a good standard of living without effectively reducing natural resources or the environment or affecting the next generations.

Sustainable development is "Our Common Future" published by the World Commission on Environment and Development (WCED, 1987 cited in Neil, 2007, p.208). The principle of sustainable development has been accepted by many institutes and organizations. Moreover, the world has realized that it should pay more attention to the environment (Neil, 2007).

The principle of sustainable development is also linked to the concept of sustainable consumption, which is about the issue of equity (Neil, 2007). If everyone has equal access to resources, the rich will not be burdened. Equal access to resources could reduce price increases and resource exploitation because resources are the cost of production. If everyone has equal access to resources, there will be no resources used by certain people and no fraud in resource prices.

It is said that technology contributes to the sustainability of the environment. However, technological development is not the only thing that contributes to sustainability, but also social life, attitudes and values that contribute to the preservation of the environment (Luke Martell, 1994). Attitude towards the environment is fundamental to sustainability. Thus, it should start with the idea that humans and nature live together in a balanced relationship and use technology to achieve this.

Equitable Access to Resource

Lorenzo (2008) explained "Access to natural resources is broadly defined here as the processes by which people, individually or collectively, are able to use natural resources, whether on a temporary or permanent basis" (p.9). The different access to resource cause pollution. It seems the wealthy country tend to be more polluting society. For example, European country create more pollution than African country because they have high technology to use in daily life, such as, car, washing machine, and waste of packaging (Steven, 1996).

Conservation

Nature Conservation is the use of the environment with reasonable and knowledge to preserve natural resources that will bring human effects in the future (Kay, 1996). Nature conservation considers the results of using, category, quantity, or scarcity in the future. The value of the resource is to use the resources for maximum benefit and minimal waste by taking into account the public interest, primarily.

A proposed Conceptual framework

The general framework for this study is based on environmental attitudes. Accordingly, environmental attitudes are assumed to lead to sustainable development,

equitable access to resources, and environmental protection. Individuals with environmental attitudes tend to be committed to sustainable development, equitable access to resources, and environmental protection. Therefore, this study examines the relationship between environmental attitudes and sustainable development, equitable access to resources, and environmental protection. The conceptual framework is shown in Figure 1

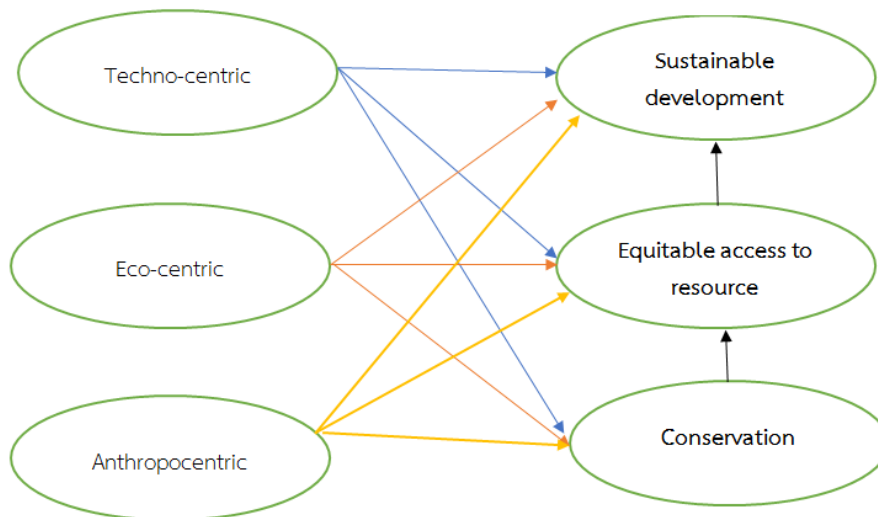


Figure 1 Conceptual framework

Discussion

An anthropocentrist will advocate for the environment if he sees the benefit to people, while an ecocentrist also tends to preserve the environment, but he thinks of nature first. Moreover, these attitudes may determine the use of environmental resources (Bruun & Kalland, 1995). Ecocentrists, anthropocentrists, and technocentrists may express positive attitudes toward natural resources and the environment that relate to protection, preservation, or conservation. Previous research on attitudes toward the environment includes Feifei. X., & Dorothy. F. (2014), whose study concluded that anthropocentric or ecocentric values significantly influence people's attitudes toward sustainable development.

Implications of the study

This research is about understanding the relationship between environmental attitudes and sustainable development, equitable access to resources, and conservation by testing the proposed framework, which may show that some factors can be omitted or added to the model to improve its effectiveness. In addition, it would be interesting to know whether the proposed framework differs in settings in different contexts. Thus, comparing the proposed framework in different countries could provide insights into different factors that contribute to sustainable development. Thus, the framework can be further developed based on the findings in different contexts.

Conclusions

The aim of this paper is to propose a framework that represents the relationship between environmental attitudes and sustainable development, equitable access to resources, and conservation. The study concludes that environmental

attitudes tend to support sustainable development, equitable access to resources, and conservation.

The proposed framework is based on theoretical research; an empirical study is essential to evaluate the potential empirical applications of the proposed framework.

Further studies should focus on validating the proposed framework in terms of relevance, practicality, and appropriateness. Testing the proposed framework in an empirical setting would provide useful information for practitioners to apply the proposed framework. Current studies do not identify explicit competencies and factors that influence sustainable development, equitable access to resources, and conservation. Further research should focus on identifying explicit competencies that influence sustainable development, equitable access to resources, and conservation in different contexts. Another area for future research is how social, emotional, and cognitive competencies are developed and whether they can be affected by destructive environmental practices.

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Attitude, Awareness and Avoiding Unethical Acts for Professional Accountants 2018

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Abstract

The objectives of this research were to study the attitudes and awareness of factors affecting the ethics for professional accountants and to study the guidelines for avoiding unethical acts for professional accountants in Bangkok. The samples were 395 by random sampling, Accounting Officers. The research instrument used in the study was a questionnaire. The data were analyzed by using Stepwise multiple regression analysis to test the hypotheses.

The results of the research were as follows:

The attitudes and awareness of factors affected the professional ethics of accountants in attitudes, neediness, knowledge and ability, competition conditions and understanding. Influence on guidelines for avoiding unethical acts of Accounting Professions at the .05 level. Conflict of Interest and Patronage System factors, there was no influence or relationship that will cause avoidance.

Keywords: Ethics for Professional Accountants, Accountant, Awareness, Attitude

Background and statement of the problem

Accounting is a business language that will help presenting useful information for business decisions. Accounting information helps reflect the image of the business and communicate to the stakeholders of the business. (Chowalee Pongphatiro, 1994). Therefore, the completeness, correctness and truthfulness of accounting information are of great importance. The participant in presenting the correct information is the “bookkeeper” which according to the Accounting Act, B.E. 2543 (2000) has defined as the person responsible for the preparation of the financial statements of the entity to be accurate and truthful. And in accordance with Thai Financial Reporting Standards.

Therefore, the preparation of the accountant's financial statements must adhere to the Ethics for Professional Accountants. In order for the presentation of the financial statements to be accurate and truthful

The Code of Ethics for Professional Accountants is an important tool to control the action of accountants. Resulting in reliable performance in the best interests of the organization and users of accounting data. (Lalita Pimta and Boonchuang Srithonrat, 2019). The Code of Ethics for Professional Accountants consists of Integrity, Objectivity, Competence and Confidentiality. (Jantana Sakhakorn, Niphan Henchokchaichana, and Silpaporn Srichanphet, 2014). Compliance with the Code results in the entity's financial statements showing reliable information. Showing the financial position of the business and operating results. If the bookkeeper does not comply with the Code of Ethics for Professional Accountants will cause the financial statements to present information is not true and result in the user making the wrong decision.

Factors that may affect the unethical acts for professional accountants. Due to the competitive environment in the business world, pressures from various circumstances, knowledge and understanding of the implementation of financial reporting standards and laws. These are obstacles to complying with the Code of Ethics for Professional Accountants caused by taking into account their own interests, familiarity, being a supporter or in any way. The researchers are interested in studying those factors. By studying the awareness of the accountants and finding ways to avoid unethical acts for professional accountants. To present to the accountants and professional accountants. To encourage compliance with the Code of Professional Accounting Ethics that is correct and appropriate for the further development of the accounting profession to be accepted

Objectives

1. To study the attitudes and awareness of factors affecting the ethics for professional accountants in Bangkok.
2. To study the guidelines for avoiding unethical acts for professional accountants in Bangkok

Concept, theory, related research, and conceptual Framework

The Code of Ethics for Professional Accountants

The Code of Ethics for Professional Accountants 2018 conducts six principles that professional accountants must follow including:

1. Integrity: Professional accountants must be honestly both in a professionally and in business.
2. Objectivity and Independence: In the performance of the duties of a professional accountant, does not tolerate any prejudice or influence to be above professional standards.
3. Professional Competence, Due Care and ...: In the performance of duties, either as an accountant or an auditor must perform duties according to knowledge and ability, specialization, professional expertise, judiciousness, attentiveness, and working according to professional standards. Professional accountants will not take jobs beyond their knowledge, ability and specialization.
4. Confidentiality: Professional accountants must maintain the confidentiality of their clients before, during and after their work. Do not reveal customer's information without the approval of the authorized person or do not to use the information for the benefit of oneself or a third party.
5. Professional Behavior: Professional accountants must comply with relevant laws and regulations, avoid compromising the credibility of the accounting profession, and responsible for service recipients and those they work for.
6. Transparency: Professional accountants must perform their duties in accordance with the laws, regulations, rules and regulations in accordance with the professional standards. And does not conceal facts or misrepresenting important facts that will affect the decision of the users of the financial statements. It is considered unethical in terms of transparency.

There are five types of obstacles as described in the Code of Ethics for Professional Accountants 2018

1. Obstacles from personal interests, financial interests, other interests that are improperly influenced or the behavior of a professional
2. Obstacles from self-review. The professional accountant is unable to make

a proper assess about the effects of his or her past judgment.

3. Obstacles from being a supporter. The professional accountant is the supporter of the client's or employer's until unable to be in a position to be able to perform tasks with fairness.

4. Obstacles from familiarity, relationships or closeness with customers or employers, too sympathetic to the interests, or easy to accept in the task of a person.

5. Obstacles from intimidation. Professional accountants are inhibited from their work due to some actual pressure. (Federation of Accounting Professions Under the Royal Patronage of His Majesty the King, 2018)

Accountant means the person responsible for the accounting of the person having the duty to keep accounts whether it has been done as an employee of a person having the duty to keep accounts or not (Section 4). The accountant must have qualifications and comply with the conditions prescribed by the Director-General of the Department of Business Development in the notification. Department of Business Development, Subject: Determination of Qualifications and Conditions of Being an Accountant, 2014, dated 30 July 2014 (Department of Business Development, 2000).

Concept of attitude

Rokeach Milton (1972) has defined the attitudes are blended and organized one's belief in one thing or any status. An overview of beliefs as a constituent of an individual that they may or may not be aware of it, but they can be known through their words and actions. Belief can come in any form. It is the part that determines a person's tendency to do something.

Roger (1978, quoted in Surapong Sothanasathien, 1990) has mentioned attitude as an index indicating that person think and feel about the people around, object, environment, or various situations. Attitudes are based on beliefs that may influence future behavior. Attitude is readiness to respond to stimuli and is a dimension of assessment to show whether you like or dislike an issue. It is an interpersonal communication. It is the effect of exposure that will affect behavior.

Concept of awareness

Awareness is a psychological concept (Psychological Approach) combined with the concept of behavior science

Royal Academy (2002: 428) has mentioned the definition of awareness is to know clearly.

Kulwadee Sudla (2007) mentioned awareness refers to the situation in which a person experiences feelings, thoughts, opinions or experiences from a particular event. It is a condition in which a person can understand and assess a situation that concerns himself. This is caused by a mental state that accepts a situation or an inclination to choose a behavior and behave in response to problem.

Conceptual Framework

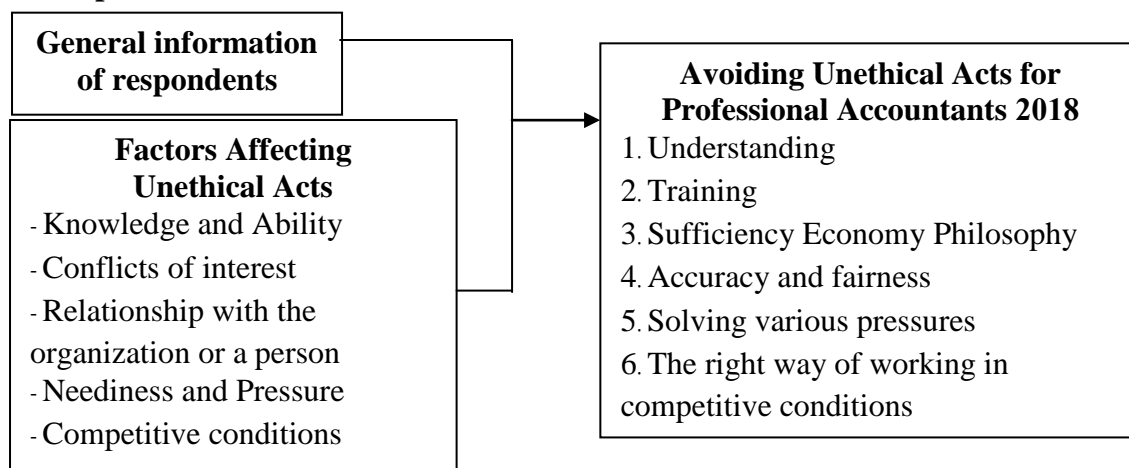


Figure 1 Conceptual Framework: Attitude, Awareness and Avoiding Unethical Acts for Professional Accountants 2018

Attitudes and awareness of factors affecting the professional ethics of accountants are related to and influence on guidelines for avoiding unethical of Accounting Professions

Research Methodology

Population and sample

This research is a quantitative research. The research instrument used in the study was a questionnaire for accountants in accounting offices and companies to answer the questionnaire. The population in this research was accountants in Bangkok which is registered as an accountant with the Federation of Accounting Professions Under the Royal Patronage of His Majesty the King and has a list in the database of the Department of Business Development, Ministry of Commerce, there are 33,471 people. (Department of Business Development, 2020)

The theory of Taro Yamane, there are 3 main variables. All three steps are as follows:

$$n = \frac{N}{1 + Ne^2}$$

n = the sample size

N = the size of the total population of interest.

e = the tolerance percentage amount (Example: A tolerance of 5 percent or 5% would have a value of e of 0.05 or 5/100).

Calculate the result of the equation to find n, where n indicates the size of the population group to be researched.

The number of samples was calculated using the Taro Yamane formula. The researchers used a total sample size of 395 samples. (Yamane, 1970)

Research instruments

The data collection instrument for the research on Attitude, Awareness and Avoiding Unethical Acts for Professional Accountants 2018. The research instrument was a questionnaire divided into 4 parts as follows.

Part 1: General information of the respondents

Part 2: Eight items of the information on attitudes towards compliance with the Code of Ethics for Professional Accountants 2018

Part 3: Thirty items of the information on awareness of factors affecting the unethical acts for the Code of Ethics for Professional Accountants 2018

Part 4: Six items of the information on guidelines for avoiding unethical acts for the Code of Ethics for Professional Accountants 2018

The instrument performance testing which is a measure of the content validity and reliability of questions to measure the consistency of questionnaires with their objectives (Index of Item-Objective Congruence: IOC), where all the questions had an IOC value from 0.87. It is assumed that the questions were representative of the objectives to be measured.

Reliability test, which is a measure of the internal consistency method using Cronbach's Alpha Coefficient and try out of 30 accountants in Nakhon Pathom, Thailand. The results of the try out was 0.89, the questionnaire was accurate in the use of data collection. (Sirichai Kanchanawasi, 2001)

Data collection

The researchers collected the data by sending the questionnaire by mail, E-mail, and walk in to Accounting Knowledge Training Institute. The researchers selected 395 complete questionnaires that were ready to be analyzed and calculated by the Taro Yamane formula.

Data analysis

Data were analyzed using analytical software package. The statistics used in the analysis consisted of Descriptive statistics for analysis of frequency, percentage, mean and standard deviation.

Inferential Statistics for analysis multiple regression. To study the relationship of attitudes and awareness of factors affecting unethical actions from various events and guidelines for avoiding unethical acts.

Interpretation score of questions

Highest	5
High	4
Fair	3
Low	2
Lowest	1

Research Results

From the data analysis of the respondents, it was found that the majority of the respondents were 164 females (65.60%), most of them aged 21-30 years, 125 people (50.00%). Most of them had a bachelor's degree, 201 people (80.40%). Most of them are bookkeepers in business organizations, numbering 175 people (accounting for 70.00 %), followed by 42 people in accounting firms (accounting for 16.80%), and the last number being independent bookkeepers. 33 people (accounting for 13.20 %) in accounting work experience Most of them were aged 3-5 years, of 71 people (accounting for 28.40 %)

Table 1 Attitudes towards the regulations of the Federation of Accounting Professions. On the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. accountants have knowledge and understanding of the regulations of the Federation of Accounting Professions. On the Code of Ethics for Professional Accounting 2018	4.33	0.59	Highest	4
2. Accountants recognize the importance and value of professional accounting ethics.	4.34	0.62	Highest	3
3. Accountants work honestly with the expectation that it will help them succeed in their career.	4.42	0.65	Highest	1
4. Accountants pay attention to work and expected to have quality, efficiency in order to be proud in the accounting profession.	4.32	0.67	Highest	5
5. Accountants work with the public interest in their work over their personal interests.	4.28	0.67	Highest	7
6. The organization of accountants is encouraged to work in accordance with the Code of Ethics for Professional Accounting.	4.23	0.72	Highest	6
7. Accountants believe that the Code of Ethics for Professional Accounting is an important and best practice for the accounting profession.	4.23	0.75	Highest	8
8. Accountants are aware that unethical for professional accountant will affect the organization and themselves.	4.41	0.78	Highest	2
total	4.32	0.48	Highest	

Table 2 Awareness of factors affecting professional accountancy unethical acts caused by an understanding on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Accountants follow the Code of Ethics for Professional Accountants, compare with different facts causing unethical acts.	4.22	0.72	Highest	1
2. Unethical acts caused by negligence in work, not intentionally or intentionally	4.07	0.77	High	5
3. Unethical acts caused by a difficult work environment.	4.12	0.86	High	2

Table 2 Awareness of factors affecting professional accountancy unethical acts caused by an understanding on the Code of Ethics for Professional Accountants 2018 (Cont.)

Item	\bar{x}	SD	Meaning	Ranking
4. Unethical acts caused by incorrect use of the accountant's discretion.	4.09	0.80	High	4
5. Unethical acts caused by a lack of understanding of the correct principles of the Code of Ethics for Professional Accountants.	4.12	0.88	High	3
total	4.12	0.65	High	

Table 3 Awareness of factors affecting professional accountancy unethical acts caused by knowledge, ability to perform tasks on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Accountants must have knowledge, financial reporting standards are adequate.	4.11	0.99	High	5
2. Accountants must have knowledge of the Accounting Act and the Code of Revenue.	4.38	0.84	High	1
3. Accountants must comply with specified reporting standards on the preparation of the financial statements to be correct.	4.32	0.87	High	2
4. Accountants do not agree that some unethical actions are minor offenses that may be overlooked.	4.21	1.05	High	3
5. Accountants must develop up-to-date accounting knowledge in order not to make mistakes.	4.19	1.08	High	4
total	4.24	0.86	High	

Table 4 Awareness of factors affecting professional accountancy unethical acts caused by conflicts of interest on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Unethical acts caused by the receipt of compensation such as wages, rewards.	4.15	0.83	High	2
2. Unethical acts caused by receiving benefits in non-monetary form such as opportunities for advancement, etc.	4.09	0.76	High	5
3. Unethical acts caused by being a contractor in the organization, from the job, or the work done which is afraid of losing job duties.	4.13	0.80	High	3

Table 4 Awareness of factors affecting professional accountancy unethical acts caused by conflicts of interest on the Code of Ethics for Professional Accountants 2018 (Cont.)

Item	\bar{x}	SD	Meaning	Ranking
4. Unethical acts caused by indirect interests such as having other interests in the business.	4.10	0.78	High	4
5. Unethical acts caused by the expectation of future results such as more customers.	4.23	0.75	Highest	1
total	4.13	0.63	High	

Table 5 Awareness of factors affecting professional accountancy unethical acts caused by relationship with the organization or a person (the patronage system) on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Unethical acts caused by accountants have a long acquaintance with organizations or individuals in the organization.	4.19	0.70	High	1
2. Unethical acts caused by preferences, respect, and patronage system before.	4.03	0.78	High	2
3. Unethical acts caused by various social status relationships such as relatives, friends, boss-subordinates.	3.98	0.85	High	5
4. Unethical acts caused by loyalty to the organizations or to individuals in the organization.	3.99	0.86	High	4
5. Unethical acts caused by organizational culture to the patronage system that ignores the correctness.	4.00	0.87	High	3
total	4.03	0.67	High	

Table 6 Awareness of factors affecting professional accountancy unethical acts caused by neediness and pressure on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Unethical acts caused by necessity to follow for their own survival or the survival of the organization.	4.22	0.72	Highest	1
2. Unethical acts caused by the difficulty of working	4.14	0.79	High	3
3. Unethical acts caused by pressure from account supervisors, colleagues and other influencers.	4.20	0.76	High	2

Table 6 Awareness of factors affecting professional accountancy unethical acts caused by neediness and pressure on the Code of Ethics for Professional Accountants 2018 (Cont.)

Item	\bar{x}	SD	Meaning	Ranking
4. Unethical acts caused by working with no other choice.	4.06	0.81	High	4
5. Unethical acts caused by external pressure.	3.92	1.01	High	5
total	4.10	0.62	High	

Table 7 Awareness of factors affecting professional accountancy unethical acts caused by competitive conditions on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Unethical acts caused by the competition from accounting services is highly competitive.	3.89	0.86	High	5
2. Unethical acts caused by inequality in business that is imperfect competition.	3.94	0.67	High	4
3. Unethical acts caused by competitors taking advantage There has been unethical of the code of conduct before.	3.95	0.75	High	3
4. Unethical acts caused by inequality in information such as competitive service quotation.	4.01	0.74	High	1
5. Unethical acts caused by intense competition. Therefore, it must be done in order to survive.	3.99	0.76	High	2
total	3.95	0.63	High	

Table 8 Guidelines for Avoiding Unethical acts on the Code of Ethics for Professional Accountants 2018

Item	\bar{x}	SD	Meaning	Ranking
1. Accountants should understand the Code of Ethics for Professional Accountants by studying from various case studies.	4.45	0.67	Highest	1
2. Accountants should attend accounting training regularly or search for knowledge in accounting that has changed to work properly	4.24	0.74	Highest	5
3. Accountants should apply the Sufficiency Economy Philosophy in their lives in order to avoid greed that leads to unethical acts.	4.32	0.80	Highest	2

Table 8 Guidelines for Avoiding Unethical acts on the Code of Ethics for Professional Accountants 2018 (Cont.)

Item	\bar{x}	SD	Meaning	Ranking
4. Accountants should have the principles of accuracy, fairness more than considering a relationship with an organization, person, or patronage system.	4.24	0.85	Highest	6
5. Accountants should resolve various pressures in the right and ethical way by asking advice from trusted knowledgeable people.	4.26	0.89	Highest	3
6. Accountants should choose the right way of working in competitive conditions and have professional judgment.	4.25	0.85	Highest	4
total	4.29	0.66	Highest	

Hypotheses testing

Attitudes and awareness of factors affecting unethical acts have a relationship and effecting guidelines for avoiding unethical acts.

It can be written hypotheses as follows:

H₀: Attitude and awareness of factors affecting unethical acts. No influence on the guidelines for avoiding unethical acts.

H₁: Attitude and awareness of factors affecting unethical acts. Effect on the guidelines for avoiding unethical acts.

Table 9 The results of the multiple regression analysis by stepwise approach to study attitudes and awareness of factors affecting unethical acts influencing the avoidance of unethical acts.

Attitudes and awareness of factors affecting unethical acts	B	SE	t	Sig.
Constant	.868	.358	2.423	.016
Attitude, Awareness	.474	.078	6.078	.000*
Knowledge, Ability	.236	.056	4.219	.000*
Neediness	.219	.078	2.805	.005
Competition conditions	.198	.082	2.414	.016
Understanding	.152	.066	2.305	.022
R square = 0.322 F = 23.148 Sig = 0.000* Adjust R Square = 0.308				

* Statistical significance at the .05 level

From Table 9 was found that constants, attitudes and awareness, knowledge and ability, neediness, competition conditions and understanding with a value of Sig < .05, indicating that the alternative hypothesis accepted (H₁) and rejected the null hypothesis (H₀), means attitudes and awareness, knowledge and ability, neediness, competition conditions and understanding had a statistically significant influence on the avoidance of unethical acts at the 0.05 level. The Adjusted R-squared (R²) was

used to compare the models with the same number of predictive variables with a value of 0.322, which was able to explain the positive influence on avoiding unethical acts was 32.2%. It can be written as an equation as follows:

$$Y \text{ Avoiding unethical acts on the Code of Ethics for Professional Accountants 2018} \\ = .868 + .474(P_1) + .236(P_2) + .219(P_3) + .198(P_4) + .152(P_5)$$

P1 = the attitude towards Ethics for Professional Accountants

P2 = the awareness of knowledge, abilities

P3 = the awareness of the need

P4 = the awareness of competition conditions

P5 = the awareness of understanding

Discussions

The study of attitude towards Ethics for Professional Accountants and awareness of factors affecting the ethics for professional accountants in various of accountants in Bangkok. There were 395 samples of data. This research uses multiple regression methods for data analysis.

The results showed that Attitudes towards Ethics for Professional Accountants and awareness of factors affecting unethical acts on the Code of Ethics for Professional Accountants in terms of knowledge and ability, Neediness, competition conditions and understanding. They had a statistically significant influence on the approach to avoiding unethical acts at the 0.05 level. Accountants have a good attitude towards the Code of Ethics for Professional Accountants was in the highest level ($\bar{x}=4.32$). Following the Code of Ethics for Professional Accountants would result in efficient work, success in work goals, was agreeable with the research of Lalita Pimta and Boonchuang Srithonrat (2019) who studied Effects Accounting Ethics on Work Success of Companies Accountants in the Roi Et Province.

In term of awareness of knowledge and ability, accountants believed that if they are aware of knowledge. And continually developing knowledge will help to make the work more efficient was in the highest level ($\bar{x}=4.24$), consistent with the requirements of the Code of Ethics for Professional Accountant and the research of Navaporn Koopeateng et al. (2021), who studied the capabilities and efficiency of the bookkeepers in accounting firms in the southern region.

In terms of awareness of neediness, accountants believed that various necessities are factors that contribute to unethical acts on the Code of Ethics for Professional Accountants was in the high level ($\bar{x}=4.10$), which awareness of the causes leads to avoidance. It was agreeable with the Code of Ethics for Professional Accountant which identified obstacles caused by various pressures.

In terms of awareness of competition conditions, accountant believed that competition conditions are a factor affecting the unethical acts on the Code of Ethics for Professional Accountants was in the high level ($\bar{x}=3.95$). It is the part of the accountant in the accounting office and freelance accountants had a high impact from professional competition conditions. Accountants must also maintain the standard of performance in accordance with professional standards which accountants must try to avoid committing unethical acts. It was agreeable with the research of Suwannee Rungjaturong (2019), who studies Factors Affecting Code of Ethics for Professional Accountants and Quality of Financial Budget of Listed Companies in the Stock Exchange of Thailand.

In terms of awareness of understanding of the Code of Ethics for Professional Accountants. It was a factor affecting the unethical acts in the high level ($\bar{x}=4.12$), was to understand the Code of Ethics for Professional Accountant. in all 6 principles, understand the obstacles that lead to the unethical acts on the Code of Ethics for Professional Accountants. In which accountants must study various of case studies to avoid and do not commit any offenses without knowledge.

The guidelines for avoiding unethical acts, the accountants agreed in the highest level ($\bar{x} = 4.26$), agreeing with the guidelines that the accountants should understand the Code of Ethics for Professional Accountants by studying various case studies in the high level ($\bar{x}=4.45$). Next, they agree that accountants should adopt the Sufficiency Economy Philosophy in their lives in order to avoid greed which leads to unethical acts for their own benefit ($\bar{x}=4.32$) and next, they agree that accountants should choose the right solution to various pressure problems from trusted knowledgeable people. ($\bar{x}=4.26$)

The factors affecting professional accountancy unethical acts caused by conflicts of interest was in the high level ($\bar{x}=4.13$), was not a variable that is selected in the multiple regression equation. It was considered to have no relationship or significant influence to the guidelines for avoiding unethical acts on the Code of Ethics for Professional Accountants because these factor is the factor that result in many unethical acts. This is consistent with the research of Pacharadanai Watcharathanapattada (2019), who studied Factors Affecting Corruption in Local Administrative Organizations.

The factors affecting professional accountancy unethical acts caused by the relationship with the organization or a person (the patronage system) was in the high level ($\bar{x}=4.03$), was not a variable that is selected in the multiple regression equation. It was considered to have no relationship or significant influence to the guidelines for avoiding unethical acts on the Code of Ethics for Professional Accountants because these factor is the factor that result in many unethical acts. This is consistent with the research of Teerawat Wongwaranyoo, who studied the Impact of the Patronage System on Performing the Civil Servant's Duties in Loei Province

Recommendations

Recommendations from research

The research results, analysis by using multiple regression equations found that awareness of factors affecting unethical acts on the Code of Ethics for Professional Accountant. In term of attitudes, neediness, knowledge and ability competition conditions and understanding. Influence on guidelines for avoiding professional ethics. Refers to such factors, when the accountant is aware, it can avoid the act of unethical conduct, but the conflict of interest factors and the relationship in the patronage system. They were factors that do not influence or relate to cause avoidance. Therefore, be careful not to cause these two factors in the organization. Conflicts of interest must be eliminated and the patronage system must be eliminated, which is quite deeply rooted in Thai society

Recommendations for Future research

The next research should study from other professional accounting such as certified public accountant, etc.

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Knowledge and Understanding of Online Business Taxation in Nonthaburi Province

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Abstract

This research aims to study knowledge and understanding of online businesses taxation in Nonthaburi Province. Study design by categorizing personal basic factors, sample including 120 people. The research tool is a questionnaire in Google Forms. Data was analyzed by percentage, mean, standard deviation, t-test and variance (One-Way ANOVA). We find that the sample group has overall online business taxation knowledge in each aspect at a high level (average 3.42). The aspect of knowledge and understanding of personal income tax return filing have the highest average, knowledge and understanding of online businesses, consequently. Gender and occupation aspects were not significantly different (p-value <0.05). Age, education and average annual income have a significant difference (p-value = 0.05).

Keywords: knowledge and understanding, online business taxation

Background and statement of the problem

The Revenue Department of Thailand is responsible for tax collection. Taxation is the main source of government's revenue under the Ministry of Finance. There are 5 types of taxes including, personal income tax (PIT), corporate income tax (CIT), value added tax (VAT), specific business tax (SBT), and stamp duty (SD). The Revenue Department of Thailand has established a strategy and policy to support the digital economy such as electronic payment system: e-Payment (Revenue Department, 2563), according to the vision is "Improve Thailand's economy and society through good governance, modern tax collection and attentive services". Due to the Corona Virus disease (COVID-19) outbreak, it is necessary to reduce contact with people so online marketing and delivery services have become popular. Every income includes online marketing income if the income up to the taxable threshold has to be a taxation filing. Determined by income or income from online sales. It is considered to be the 8th type of income, which is income from business, commerce, agriculture, industry, transportation, and real estate sales. Therefore, online marketing income tax filing under Section 40 of the Revenue Code Section 40(8) means that individuals (Anyone who is not commercially registered as a corporate entity) must file taxes to show the Revenue income and expenses. That it is at the level that should be exempt from tax or not (Bangkok Business, 2564). Consequently, the researcher is interested to know the level of knowledge and understanding of online business taxation in Nonthaburi Province. After that improving entrepreneurs's knowledge and understanding in online business taxation.

Objectives

1. To study demographic factors influencing the knowledge and understanding of online business taxation entrepreneurs in Nonthaburi Province.

2. To study the knowledge and understanding of tax payment and tax filing in online business in online business entrepreneurs in Nonthaburi Province.

Hypothesis

1. Differences in personal factors affect the variance of knowledge and understanding.
2. Differences in personal factors affect the variance of online business operations.

Theories, concepts and related research

Knowledge of online business tax

Online business tax, people who are responsible to pay taxes are those who “have income” up to the legal threshold. So you are an online seller, you have income, then you have a responsibility to pay taxes. What kind of tax will be taxed depending on what we sell online, which can be divided into 2 types:

1. Individual
2. Juristic (This case is for online stores that are registered as a company)

If income from sales of goods or services is exceeding 1.8 million baht per year, VAT must be registered. An online store which operates on an individual person (Not registered as a juristic person). Taxpayer have to know and follow the tax role, there are 4 issues as following:

1. Taxpayer Identification Number, Taxpayers must have a taxpayer identification number to perform tax duties with details as follow:

- Thai (individuals) can use their identification card number as a taxpayer identification number.

- Partnerships or non-registered ordinary partnerships . Must submit a request for Lor Por. 10.2 to request a taxpayer identification number at The Revenue Department or branch of The Revenue Department.

- Foreigners must submit a request for Lor Por. 10.1 to obtain a taxpayer identification number at The Revenue Department or branch of The Revenue Department.

2. Preparation of cash received - paid report and document/evidence storage income-expense. Entrepreneurs operating on behalf of individuals. Must prepare a report showing daily income and expenses (cash report, received-paid) at least the items in the form and keep the report with documents/ report of income - expenses to support tax filing.

Examples of supporting documents for reporting that can be tax expenditures

- receipt
- tax invoice
- cash bill
- receipt bill + copy of ID card

It must be expenses related to the business only.

3. Filing income tax return and tax calculation

Income from selling products online is 40(8). Taxpayer are obliged to submit the form twice a year as follows:

Por Ngor Dor 94 is a semi-annual tax filing form. Must be filed by September 30th of that year.

Por Ngor Dor 90 is an annual tax return form that must be filed by March 31st of the following year.

4. VAT, In the case of income from sales of goods or services is exceeding 1.8 million baht per year.

If the entrepreneur has income from selling products or providing services exceeding 1.8 million baht per year must be registered for VAT and perform duties of VAT operators with details as follows:

4.1 VAT registration

If the entrepreneur has income from selling products or providing services exceeding 1.8 million baht per year, submit an application for registration VAT (Phor Por 01) within 30 days from the date that the income is exceeding 1.8 million baht per year at The Revenue Department where the business is located or submit via the internet VAT-SBT Online.

4.2 Sales tax invoices.

- VAT registrants must make a tax invoice and a copy of the tax invoice for selling products or services every time.
- Deliver the original tax invoice to the purchaser of the product or the recipient of the service.
- Keep a copy of the tax invoice at the place of business for at least 5 years.

In the cessation event of the business operators, documents must be kept for another 2 years from the date of cessation of business.

4.3 Prepare a VAT report. VAT registrants are responsible for preparing VAT reports every month, such as input tax reports. sales tax report product and raw material report.

4.4 Filing a VAT return (Phor Phor 30) VAT registrants have a duty to submit a VAT return (Phor Phor 30) on a monthly basis.

Within the 15th day of the following month, if filed at a branch of The Revenue Department where the establishment is located.

By the 23rd day of the following month if submitting through the Internet.

If there is a change in the items that have been registered for VAT in a material part such as changing the type of business, change the type of product or service, change the name of the establishment, etc., submit an application for notification of the change (Por Por 09) within 15 days from the date of the change (depending on the case).

How to file taxes for online merchants.

Whether it's an online merchant who has a one-way income from selling online or salaryman who sells online together, they must file 2 types of taxes, which are Por Ngor Dor 94 and Por Ngor Dor 90, which must be filed according to The Revenue Department as follows:

The first round is the half-year tax filing during July - September of each year to file taxes using income. From 1st January-30th June to show in the tax filing form Por Ngor Dor 94 within 1st July-30th September. Half-year tax payment to alleviate the burden of taxpayers in order not to pay heavy taxes at once.

2nd round of tax filing at the end of the year during January - March of every year. Filing taxes by bringing income for the whole year. Fill out a form Por Ngor Dor 90 form within 1st January – 31st March of the following year (for example, income in the year 2020 must be filed in March 2021).

However, some online sellers may have to pay VAT in case of income exceeding 1.8 million baht, must register VAT and file tax every month by the 15th

day of the following month. Have a duty to leave "Tax invoice" for users to use the service as well.

Through what channels can I file taxes?

For official channels "Personal income tax filing" has 2 options, the first is to prepare paper documents then go to file tax by yourself at The Revenue Department during office hours. The second channel is online tax filing through the website of The Revenue Department (www.rd.go.th) for filing Por Ngor Dor 90/91/94, the service is available 24 hours a day, including public holidays. The online tax filing is convenient and fast. Will also be privileged to extend the time for tax return filing and tax payment later than paper filing (Based on the Revenue Department announced each year) and has a program to help check the initial data. If you find incorrect information when filing your taxes in some cases. The system will notify you immediately. This makes it possible for newbies who have just filed their first taxes. Preparation steps filing taxes for online merchants

Step 1: Make a note of purchase and sale items. To be used in accounting for daily income and expenses, making it not forgotten, not confused, which will help us manage money much easier than doing it backwards.

Step 2: Collect all relevant evidence. whether it is a document related to trade financial transactions. In addition to helping us verify the validity of the account. It also reduces the risk of problems when The Revenue Department comes in and asks for an audit. Especially in the case of checking that the frequency and amount of money transferred into the account is eligible for e-payment tax. This means checking the information of the account holder with the number of times and the amount of money received during 1st January – 31st December of each year as follows:

- There are 3,000 deposits or receipts to all accounts per year or more. Regardless of the deposit per time or the total amount will be how many baht.

- There are 400 deposits or receipts to all accounts a year or more. and have a total amount of 2 million baht per year or more.

Step 3 Continue to study and follow up on financial news and tax related matters. Because of the conditions each year subject to change, staying up to date will help you manage your taxes properly. Manage your own finances properly and no hindsight.

Sell products online "How to calculate tax?"

Unregistered online merchants shall be regarded as a natural person who must "Personal income tax". Online merchants can choose to deduct expenses for tax deductions in 2 types: actual and 60%.

1. Deduction of actual expenses. Who is it suitable for?

Online merchants with high cost of selling products. Suitable for tax filing with deduction of actual expenses. Because this method will allow people with high costs to deduct high expenses as well, which after deducting expenses. The net income that must be used for tax calculation will decrease accordingly. In this way, it must be collected. "Accounts of Income and Expenses" with "Evidences" in full for easy inspection and it helps reduce confusion when filing taxes.

2. Deduction of contract expenses. Who is 60% suitable for?

A very profitable online merchant, for example, real profit minus expenses is more than 40%, meaning that the cost of the business is less than 60% of the total revenue. In this case, it is advisable to choose for a flat tax filing. The advantages of filing this way: That is, no evidence of any expenses is required with The Revenue Department

and it allows us to gain tax benefits on the actual cost difference with chartered expenses.

For online traders who are not good at calculating their own taxes. Can be simplified by trying online tax calculations. Free of charge through The Revenue Department's "RD Smart Tax" application just fill out the information according to the steps. It will help calculate the tax to be paid or tax that will be refunded without having to calculate by yourself.

Related research

Panpen Sittipatna et al. (2021) The results revealed that they are female, aged 20-30 years, with a bachelor's degree. Most of the sample groups were students, with average income per year. Less than 100,000 baht, has an assessable income source 40(1) Income due to employment and had no experience of paying taxes. The sample group had a high level of knowledge and understanding about factors affecting personal income tax return filing via the Internet. When considering the classification in each aspect, it was found that Tech savvy has the highest average. The test of personal factors (gender) on factors affecting personal income tax return filing found that the results of all three factors were not different at the statistical significance level of 0.05. The overview of factors affecting personal income tax return filing via the Internet. The three factors, renewal, educational level and occupation had no difference in overall results at the statistically significant level, only the average annual income that resulted in a difference at a statistically significant level.

Conceptual Framework

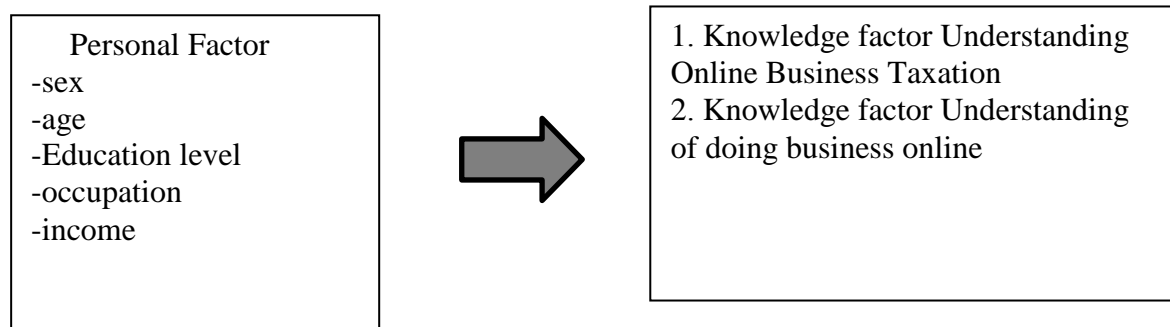


Figure 1 Conceptual Framework

Methods of conducting research

Population and samples used in research

1. Population and sample

Population is people who have assessable income under Section 40 of The Revenue Code, who have working in Nonthaburi Province, amount 956,037 people (Office of Labor Nonthaburi Province, 2021)

2. Samples

Determine the sample size, method of determining the specific sample size (Purposive Sampling), 120 samples.

Research tools

This research, knowledge and understanding of online business taxation in Nonthaburi Province. It is a descriptive research in the form of a survey research. Data collection and collection uses questionnaires as a tool for collecting and collecting questionnaire data.

Creation and verification of the quality of research instruments

The creation of a data collection tool is carried out in the following steps:

1. Study research documents, textbooks and theories. Research papers related to knowledge and understanding of online business taxation in 2 points:

- knowledge and understanding of tax payment filing.
- knowledge and understanding of doing business online.

2. Study how to create a questionnaire and how to create a test got to 0.95 of confidence level

3. Create a questionnaire and present it to the advisor for review and complete review. The questionnaire is divided into 3 parts as follows:

Part 1 The personal fundamentals of the respondents which includes gender, age, occupation, educational level and average income per year

Part 2 Knowledge and understanding of personal income tax return filing, the evaluation form 5 levels in both areas consisted of knowledge and understanding of income tax filing /knowledge and understanding of online business, the researcher used a scale to estimate rating scale using Likert's Scale method. Each question was answered. Choose 5 levels with the following scoring criteria:

5	means	the highest level
4	means	high level
3	means	moderate
2	means	low level
1	means	the lowest level

The researchers set out criteria for determining the average score in interpreting online business taxation knowledge. By dividing the mean according to the following criteria (Likert Scale)

4.20 – 5.00	means	The highest level of knowledge and understanding
3.40 – 4.19	means	A high level of knowledge and understanding
2.60 – 3.39	means	A moderate level of knowledge and understanding
1.80 – 2.59	means	Low level of knowledge and understanding
1.00 – 1.79	means	The lowest level of knowledge and understanding

Collecting Information

This research has collected data from a sample group in Nonthaburi Province. The researcher distributed the questionnaire by creating a questionnaire in the form of a Google Forms and collecting data for 120 people.

Data analysis

The researcher collected 120 questionnaires as needed and the data was processed and analyzed with a ready-made computer program : SPSS (Statistical Package for the Social Sciences).

Data analysis results

The sample group consisted of 120 people, 32 males (26.70%), 88 females (73.30%). Most of the respondents were aged 20-30 years, 48 people (40.00%), 31-40 years, 37 people (30.80%). At the bachelor's degree level, the most common number is 68 people (56.70%), less than bachelor's degree, 47 people (39.20%). The

survey consisted of company employees / employees the most, 64 people (53.30%), private business careers, 43 people (35.80%). The average annual income of the most common respondents with income less than 120,000 baht, 60 people (50.00%), income 120,000 - 300,000 baht, 45 people(37.50%).

Overview of knowledge and understanding of tax filing and knowledge and understanding of online business operations as follows.

Table 1 Shows the mean, standard deviation, knowledge level, understanding of online business taxation and understanding of online business in general.

Knowledge level Overview Understanding Online Business Taxation	\bar{X}	SD	Means
Cognitive in filing a personal income tax return	3.44	0.82	High
Knowledge and understanding of online business	3.40	0.87	High
total	3.42	0.85	High

Table 1 The sample group had knowledge and understanding of factors affecting knowledge. The understanding of online business taxation and the overall understanding of online business in each aspect were at a high level, with an \bar{X} value of 3.42. Paying personal income tax has the highest average. Knowledge of online business has been understood because most of the respondents were employed as company employees/employees without having studied online business directly.

Research hypothesis testing

Table 2 shows the results of a hypothesis analysis (T-test) of individual factors (Gender) affecting knowledge and overview of online business taxation.

The overview tests the personal factors of knowledge. Understanding Online Business Taxation	Sex	N	F	Sig.	Means
Cognitive factors in filing a personal income tax return	male female	32 88	1.59	0.21	no difference
Knowledge and understanding of online business	male female	32 88	0.71	0.40	no difference

* Statistical significance at the level .05

From Table 2 It was found that the overall hypothesis testing (T-test) personal factors affecting knowledge. Understanding of online business taxation as a whole at a statistically significant level of 0.05 by cognitive factor. In filing a personal income tax return and knowledge factors. The respondents' perception of e-business on gender had no difference in the overall hypothesis test results at the statistical significance level.

Table 3 Comparison of factors affecting knowledge and understanding of taxation of online businesses in Nonthaburi Province as a whole

The overview tests the personal factors of knowledge. Understanding Online Business Taxation	Individual factors to knowledge Understanding Online Business Taxation					
	SS	df	MS	F	Sig	Means
1. Age	95.97	119	0.75	2.45	0.03*	difference
2. Education level	37.30	119	0.29	2.31	0.04*	difference
3. Occupation	53.30	119	0.45	0.85	0.53	no difference
4. Average income per year	80.33	119	0.55	5.25	0.00*	difference

* Statistical significance at the level .05

From Table 3, it was found that the overall factors affecting knowledge and understanding of online business taxation as a whole at a statistically significant level of 0.05 by cognitive factor. In filing a personal income tax return and knowledge factors continued understanding of online business. Only the respondents' occupations had no overall difference at the level of statistical significance, age, education level, and the average annual income that differed at statistically significant levels showed that age, education level and the average annual income affects the tax factor of online businesses in both aspects.

Discussions

The results of a research study on knowledge and understanding of online business taxation in Nonthaburi Province. The researchers were able to discuss the results according to the research objectives as follows:

Overall, the sample group had a high level of knowledge and understanding about online business taxation in each aspect. When considering this aspect, it was found that knowledge and understanding factors in filing personal income tax returns had the highest average. Followed by knowledge and understanding of online business operations, age, education level and average annual income of the respondents. There were different comparison results at the statistical significance level, showing that age education level and the average annual income affects the knowledge factor. Understanding of doing business online because respondents' age affects their level of education and average annual income. Resulting in lack of knowledge and understanding of doing business online and in another case, most of the respondents were working in a company style. Without having studied about doing business online directly, so in the tax of online business if taxpayers file personal income tax by themselves. This will result in knowledge and understanding of the tax filing process which is consistent with the research of. Panpen Sittipatna (2564). The results revealed that she was a female, aged 20-30 years, having a bachelor's degree. Most of the samples were students, students with an average annual income of less than 100,000 baht, with assessable income sources 40 (1) income due to employment and had no experience of paying taxes. The sample group had a high level of knowledge and understanding about factors affecting personal income tax return filing via the Internet. When considering the classification in each aspect, it was found that tech savvy has the highest average. The test of personal factors

(gender) on factors affecting personal income tax return filing found that the results of all three factors were not different at the statistical significance level of 0.05 and the overview of factors affecting personal income tax return filing via the Internet. The three factors, renewal, educational level and occupation had no difference in overall results at the statistically significant level, only the average annual income. That resulted in differences at the statistically significant level. Priyaporn Bungthong (2563) studied knowledge and understanding about personal income tax payment in Bangkok. Overall, there was a moderate level of knowledge and understanding about personal income tax payment and the results of the comparison of knowledge and understanding about personal income tax payment in Bangkok Classified by variables, age, education, occupation, it was found that people in Bangkok with different age, education and occupation had different knowledge and understanding about personal income tax payment. Individuals of the people of Phuket with the objective of studying the level of knowledge and understanding of the personal income tax of the people in Phuket and compare the level of knowledge and understanding about personal income tax payment of people in Phuket by gender, educational background and occupation by using a questionnaire. Data were collected from a sample of 393 people. The variables in the study consisted of independent variables such as sex, educational background and occupation. The dependent variable was the knowledge and understanding of personal income tax payments of people in Phuket. The results of the study concluded that the respondents had knowledge and understanding of personal income tax payment and when comparing the level of knowledge and understanding about personal income tax payment of people in Phuket. According to gender, education and occupation variables, it was found that the level of knowledge and understanding about personal income tax payment of people in Phuket according to gender, educational and occupation variables were significantly different at the 0.05 level. The personal income tax is higher than the male. Those with a high school diploma and a bachelor's degree had a higher understanding of personal income tax payments than those with a lower secondary and postgraduate degree. Those who are professional employees have higher knowledge and understanding about personal income tax payment than those who have business owners, self-employed, trading, and civil servants/state enterprises.

These findings reveal factors that affect online business taxation. Most of the people had the highest average of knowledge and understanding in filing personal income tax returns. Followed by knowledge and understanding of online business operations so that people in the Nonthaburi area have more knowledge and understanding of online business tax payment.

Recommendations

Research results knowledge and understanding of online business taxation in Nonthaburi Province can suggest operations as follows:

Recommendations from research

1. Perception that it is useful online entrepreneurs should study online business tax information. will have knowledge of online tax filing.

2. In personnel, The Revenue Department should increase personnel to access educational institutions, to provide knowledge and understanding. Cultivated youth will have an understanding that can be passed on to parents who still lack knowledge of tax filing.

Recommendations for Future research

So the results of this study can be used to expand the study results more broadly. The researcher therefore recommends issues for future research as follows:

1. Should increase the study of other variables to increase research efficiency and it is beneficial to the agency to create more credibility.

2. There should be more samples in each district study. In order to get more diverse and comprehensive information, since online business is currently the main occupation of many people, therefore, the next study may get more diverse information than before.

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The Impact of Attribution Training on Students' Self-efficacy: A case study from S Vocational College

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Abstract

Attribution theory originated from related research in social psychology. After more than 60 years of development, research results have become one of the important theories for understanding human behavior. Positive attribution methods can promote the individual's subsequent behavior and help improve the individual's sense of self-efficacy. In this study, first-year students in higher vocational schools were selected as subjects. Two methods of self-attribution training and teacher attribution training were used to conduct attribution training for students with low self-efficacy six times, and compare the self-efficacy of students before and after the training. Through research, it is found that the self-efficacy scores of the subjects in the self-attribution group are significantly different before and after the experiment. That is, compared with teacher attribution training, self-attribution training can improve students' sense of self-efficacy. As one of the important contents of higher vocational education, mental health education should have a positive effect on the level of students' mental health. There is still a lot of room for improvement in the self-efficacy of vocational students. To ensure the effectiveness of the course, self-attribution training can be more applied to the course.

Keywords: attributional training, self-efficacy, higher vocational students, mental health

Background and Statement of the problem

In the 1970s, Weiner created the attribution theory of emotion and motivation, closely linking attribution, emotion and behavior, and became an outstanding representative of contemporary attribution theory, making the research on attribution flourish. Although the problems and focus of the attribution theories put forward by different researchers are different, some emphasize the premise of attribution, and some tend to the result of attribution, But they all advocate explaining the reasons according to the behavioral results, and the important role of the perceived reasons, expectations, and emotions in choosing subsequent behaviors, emphasizing the specific relationship between the individual's cognitive activities and behavioral responses. Based on this logical cognitive-behavior model supported by a large amount of research, attribution researchers have moved from basic concept research to practical application research, which is closely related to our daily lives. Researchers have studied a large number of attribution phenomena in different fields. With the deepening of the research and the continuous expansion of the scope, researchers have more clearly realized the guiding role of attribution theory in real life.

Attribution is the tendency of individuals to reason about different events or behaviors in a similar or habitual way based on past experience and current expectations. An individual's attribution method will directly affect his subsequent behavior and motivation. Attribution training can guide the formation of positive emotions and

expectations by changing attribution methods. The stable attribution style formed in the process of students' psychological growth will affect the individual's self-evaluation, social cognition, interpersonal relationship, etc., and then affect their mental health. In the process of cognitive processing, attribution is the process of translating perceptual input in order to construct a "mental model", so it is a subsystem of the mental system, not just an influencing factor. Positive attribution methods can improve motivation, change inferiority complex, and enhance self-efficacy.

Attribution theory believes that an individual's cognitive evaluation of attribution is closely related to their expectations of future goals, the generation of emotional experience, and achievement motivation. Therefore, in order to improve students' mental health and achievement motivation level, it is very important to give attribution guidance to them. Carrying out attribution research, especially research on the attribution methods of higher vocational students and how to improve attribution methods, is also very important for teachers engaged in mental health work. In this way, they can use certain methods to guide students to make scientific and reasonable attributions to objective things, so as to take active countermeasures. Teachers of various subjects can also use to guide students' scientific attribution to stimulate their learning motivation, improve their emotional state, and improve their academic performance and innovation ability.

The theory of self-efficacy was first proposed by American psychologist Bandura in the 1970s. Bandura's social learning theory emphasizes individual self-efficacy, which promotes the proposal of the "control source" dimension in attribution theory. Self-efficacy refers to a person's judgment on whether one can accomplish a certain goal or overcome a certain difficulty. It is a subjective judgment of one's own behavioral ability. Self-efficacy is a kind of ability assessment, and it also affects the function of the behavior subject when facing objective stimuli. Self-efficacy can promote the individual's choice of behavioral tasks and the degree of persistence and effort in dealing with the task. It also affects the individual's thinking mode and emotional reflection mode in the process of performing the task (Bandura, 1977).

In terms of time, the goal of self-efficacy is to point to the future. It occurs before the behavior and is an expectation and judgment of whether the task can be completed in the future. This kind of expectation and judgment will change the choice and judgment of human beings by influencing the individual's cognitive process, motivation process, emotional process and selection process. Self-efficacy can be changed. It changes with the environment and with the accumulation of experience. Self-efficacy has an important influence on all aspects of our lives, including our choices and decision-making.

Studies have shown that self-efficacy affects the mental health of college students. Specifically, the level of self-efficacy is closely related to individual behavior. College students with higher self-efficacy are more inclined to adopt positive behaviors, and their mental health status also shows a more positive level. The most direct manifestation of students with high self-efficacy is self-confidence. As a good psychological trait, self-confidence is conducive to the mental health of college students. Generally speaking, individuals with a higher sense of self-efficacy will choose to persevere when encountering difficulties and tend to make more efforts. For higher vocational students, their emotional experience is unstable, and it is also possible to reduce their self-efficacy due to a little setback. In addition, the self-efficacy of students at different stages also

presents different performances. When freshmen face a new environment, their sense of self-efficacy decreases due to lack of self-confidence in adapting. Self-efficacy increased steadily in the second grade. When graduating from junior year, facing various uncertain factors in the future, he is prone to fear emotions and doubts about his own abilities, which leads to a simultaneous decrease in self-efficacy. Studies have shown that the self-efficacy of college students is significantly negatively correlated with depression and anxiety, indicating that a higher sense of self-efficacy can enable individuals to have a certain degree of self-confidence and reduce the generation of negative emotions.

In order to study the influence of attribution methods on the self-efficacy of vocational students, and to explore effective ways to improve self-efficacy, this study conducted attribution training on vocational students to observe the changes in their self-efficacy before and after training. Randomly select first-year students from a higher vocational college. First, analyze the general self-efficacy of first-year students through a questionnaire, and then select students with lower scores and divide them into three groups. One group performed self-attribution training mode, one group performed teacher attribution training, and the other group did not perform any training as the control group. The two groups of subjects were tested before and after training with a general self-efficacy scale.

Objective

This research aims to explore the impact of different attribution training methods on the self-efficacy of higher vocational students, help students with negative attribution methods to form positive attribution methods, improve their self-efficacy, help them improve learning motivation, and Apply to other areas of life.

In order to improve the practicality of mental health courses in higher vocational colleges, self-attribution training can be added to mental health courses to help students master more reasonable attribution methods and improve their sense of self-efficacy.

There is a certain difference between vocational students and ordinary college students, which is mainly reflected in the sense of inferiority and the secularization of value orientation. Due to the general underestimation of vocational education in the current society, most students feel inferior after entering vocational colleges, have a low sense of self-efficacy, and lack learning motivation. As higher vocational students whose psychological mechanism is not yet fully mature, they are highly dependent on the Internet and get a large number of information resources from various media every day. They lack the ability to distinguish, accompanied by negative information, and increase anxiety and pressure during their growth. Large, leading to conflicts between their own requirements in their value orientation and social reality on campus. In the value orientation, the psychological emotions of "caring and indifference are compatible, hope and confusion coexist, enterprising and hesitation are accompanied, identity and loss are intertwined". At the same time, they have little life experience, little social experience, lack of preparation and struggle spirit for hard work, independence and dependence coexist.

Higher vocational students and undergraduate college students show certain differences in self-esteem, value orientation, and behavior habits. Their self-efficacy has been affected by many aspects in real life, such as their direct experience of success or

failure, the behavioral performance of their classmates, the school education and teaching atmosphere, their own energy management and emotional response, etc. The current self-efficacy of vocational students are generally lower.

In view of the poor study habits and learning foundation of higher vocational students, low interest in active learning, and dislike of preaching, the mental health class of higher vocational students should be mainly operability and application. Taking students' needs as the starting point, helping them solve their current problems, resonating with students, allowing students to participate more in the course, experiential teaching, weakening theoretical and professional terminology, using popular expressions, life-oriented language, and storytelling form to introduce psychological knowledge.

The ultimate goal of education is to enable students to learn to learn independently. In the future development, whether students are competitive, whether they have the ability to control knowledge in the information age, fundamentally speaking, depends on whether students have the ability to learn for life. Therefore, whether students can learn to learn in the higher education stage is the goal pursued by higher education today. Cultivating the ability of students to learn independently is to focus on the growth of students in life, from the perspective of being responsible for the future of the students, and strive to build a set of effective methods and means for cultivating the ability of students to learn independently, and ultimately to cultivate students' lifelong learning Abilities, and all of this must first cultivate students' sense of self-efficacy. An unavoidable fact in current education is that most education is for achievement, and does not really take the cultivation of students' sense of self-efficacy and the promotion of students' lifelong growth as the ultimate goal of education. The ultimate goal of education is to promote the growth of people and promote their all-round development. Therefore, it is very important to cultivate a good sense of self-efficacy among students. In higher vocational education, students are the future talents of the country and a comprehensive manifestation of the country's future competitiveness. As an organization for cultivating talents in society, higher vocational schools must cultivate students' abilities in all aspects within a short period of three years, and enable students to achieve development. For students to achieve growth development, self-efficacy training is very important.

Expected benefits

People have various attribution biases in their daily cognition of their behavior. Through attribution training, individuals can obtain various forms of attribution feedback information, eliminate attribution biases and form positive attribution methods. This study compares the effects of the two attribution training methods of teacher attribution and self-attribution on the self-efficacy of vocational students.

As one of the important contents of higher vocational education, mental health courses play an important role in popularizing mental health knowledge and methods. In teaching, attribution training is to intervene in students' obstacles in the learning situation, in order to help students improve negative attribution methods, cultivate positive attribution methods, and improve academic performance. Through attribution training to improve students' sense of self-efficacy, applying attribution training to mental health courses can enable students to improve their sense of self-efficacy in activities.

This research aims to explore attribution training methods that can effectively improve the self-efficacy of vocational students and help them improve their self-efficacy. Students learning positive attribution methods will not only help their learning in school, but also have important implications for how they view successes and failures in life in the future.

Higher vocational students are in their early adulthood, their psychological mechanism is basically mature, and there is little variation in attribution methods. The research on the attribution style of higher vocational students is beneficial to the education field to correctly guide higher vocational students to form a more appropriate way of life and learning, as well as to cultivate social adaptability.

The research and discussion of attribution training methods and self-efficacy will help expand the application of the two in higher vocational education, and also help higher vocational education to further promote teaching reform, and provide theories for enhancing the self-confidence of higher vocational students in teaching Guidance to provide theoretical and practical support to help vocational students overcome psychological difficulties.

Through this research, find ways to improve the self-efficacy of higher vocational students, and improve their sense of self-efficacy through attribution training. Self-attribution training can be applied to mental health courses, and self-attribution training can be used as a mental health course. The operation class helps students improve their sense of self-efficacy.

Conceptual Framework

Attribution refers to the process by which people analyze what they or others do, point out its nature or infer its cause. An individual's attribution of an event affects the level of motivation for subsequent behaviors.

Self-efficacy refers to the individual's judgment on whether he can accomplish a certain goal or behavior, and is the individual's confidence in coping with challenges and overcoming difficulties in the environment.

Attribution training refers to a series of training steps to help individuals master attribution methods and form positive attribution methods. This study compares the effects of the two attribution training methods of teacher attribution and self-attribution on the self-efficacy of vocational students. This research aims to explore attribution training methods that can effectively improve the self-efficacy of vocational students and help them improve their self-efficacy.

Research Methodology

Participants in this study were randomly selected from the first-year students of a higher vocational college, and a total of 205 students in eight classes were selected. Participants first completed the general self-efficacy scale. After data analysis, students with low self-efficacy were selected and randomly divided into three groups. They participated in the self-attribution group, teacher attribution group, and control group. 40 students, a total of 120 students.

205 students first completed the General Self-Efficacy Scale, and after sorting out the scores on the scale, 120 students with low scores on the General Self-Efficacy Scale

were selected to participate in six attribution training sessions. After training, complete the general self-efficacy scale again, and test the significance of the differences in the self-efficacy scores of the three groups before and after the experiment.

The experimental independent variable is the attribution training method, which is divided into student self attribution and teacher direct attribution. The control group does not conduct any intervention. The dependent variable is the self-efficacy score. The two groups of experimental groups received attribution training for two weeks, three times a week, for a total of six attribution training. The experimental group and the control group were measured before and after the experiment.

The difference between student self-attribution and teacher's direct attribution mainly lies in the depth and initiative of students' participation in the discussion. Among them, in the active attribution link, the student self-attribution group is through group discussion, each student can participate in it, and through communication with other group members, they discover unreasonable situations in their own attribution methods. And the teacher's direct attribution group is the analysis of the teacher's attribution method to the students, and the students' participation is low. The third group activity of students' self-attribution was to discuss the specific cases of the group members, while the third group activity of the teacher's direct attribution group was the advantage bombing training. In the third group activity, compared with the teacher's direct attribution group, the student self-attribution group was more able to adjust their attribution methods in the experience of themselves and their peers.

Research Results

Table 1 Multiple comparisons of the general self-efficacy scores of the three groups of subjects

Table 4-5 Multiple comparisons of the general self-efficacy scores of the three groups of subjects				
Group	Group	Mean difference	Standard error	P
Self-attribution group	Teacher attribution group	1.95	0.77	0.13
	Control group	4.18		0.00**
Teacher attribution group	Self-attribution group	-1.95		0.13
	Control group	2.23		0.05
Control group	Self-attribution group	-4.18		0.00**
	Teacher attribution groups	-2.33		0.05

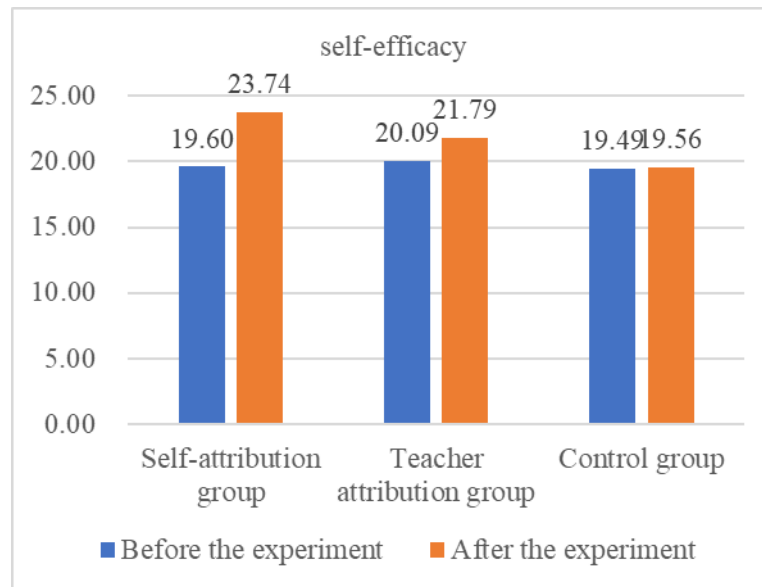


Figure 1 The general self-efficacy scores of the three groups before and after the experiment

Table 1 and Figure 1 show that after attribution training, the scores of general self-efficacy of the self-attribution group were significantly higher than those of the teacher attribution group and the control group. The teacher attribution group and the control group There was no significant difference in the effect on general self-efficacy.

Summary of the Study

After data analysis of the questionnaire results before and after the experiment of the three groups of subjects, it is found that there is no difference in the pre-test results of the general self-efficacy of the three groups of subjects. After six attribution trainings, the self-attribution group and the teacher attribution group and the control group are significantly different among the three groups of subjects. The self-attribution group participants' general self-efficacy scores after the experiment were significantly higher than the pre-experiment scores. However, the teacher attribution model has no obvious effect on improving the general self-efficacy of vocational students.

Discussions

The results of domestic research on general self-efficacy of college students have shown that the general self-efficacy of college students is higher than the middle level, with an average $M=27.06$, and students with a score of less than 25 account for 21% of the total. This research on the first-year students of higher vocational colleges shows that the general self-efficacy of higher vocational students is at a lower-middle level, with an average $M=24.77$, and 49.77% of the total number of scores below 25 points. This shows that the general self-efficacy of higher vocational students is lower than the average level of the overall college students, so improving the general self-efficacy of higher vocational students is a very important task for higher vocational education.

After data analysis of the questionnaire results before and after the experiment of the three groups of subjects, it is found that there is no difference in the pre-test results of the general self-efficacy of the three groups of subjects. After six attribution trainings, the self-attribution group and the teacher attribution group and the control group are significantly different among the three groups of subjects. The self-attribution group participants' general self-efficacy scores after the experiment were significantly higher than the pre-experiment scores, indicating that the self-attribution training model can effectively improve students' general self-efficacy.

The analysis of the changes in the general self-efficacy scores of the three groups of subjects before and after the experiment showed that the self-attribution model compared with the teacher attribution model and the control group, the general self-efficacy score after the experiment was significantly higher than that before the experiment.

Participants with low self-efficacy experienced a significant increase in self-efficacy after self-attribution training. From the perspective of attribution methods, participants with low self-efficacy usually attribute their failure experience to their lack of ability before the experiment, and attribute their successful experience to good luck or easy tasks. After attribution training, guide them to attribute their failures to insufficient effort or external factors rather than ability factors related to individual evaluation, which protects the individual's self-efficacy and confidence. At the same time, during the discussion, I continued to get encouragement and positive feedback from other people in the group, gained a successful experience, and corrected his low self-evaluation.

Recommendations

People's explanations of behavioral causes are not always purely rational based on a three-dimensional structure. People's attributable behaviors still have large individual differences. Some people can directly infer the cause of events or behaviors based on relevant past experience. Some people attribution are based on feelings rather than rationally inferring step by step. Therefore, in the future, the impact of attribution training methods on individual self-efficacy needs to be concerned with individual differences, and how attribution training affects the internal mechanism of self-efficacy.

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Impact of Educational Innovation on Student Learning Outcomes A Case Study from Hebei Middle School Physical Courses

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Abstract

According to the educational philosophy of the Chinese Ministry of Education on the physical education curriculum of full-time compulsory education, the core of current physical education and health curriculum is to meet the needs of students and emphasize the emotional experience of students, and promote the growth of students in the new era of comprehensive development. From the design to the evaluation, the initiative and comprehensive development of students is always the priority. This requires physical education teachers to break away from the existing deep-rooted traditional physical education model, and research innovative physical education models based on the new concepts of the new physical and health curriculum standards.

This study uses the literature method, questionnaire survey method for students in school and other research methods, and the preliminary conclusion is that the conversion rate of the innovation achievements of the current physical education model is low. Therefore, a mechanism for transforming the innovation achievements of the physical education model is proposed to solve the problem that the current teaching innovation results are many, but the actual application rate is very low.

Keywords: physical education, Innovative curriculum, student engagement.

Background and Statement of the problem

Physical Education (Peterson) is both a discipline and a profession. As a curricular discipline, it promotes an understanding of the centrality of movement in daily life, in all its forms. Since the reform and opening up in 1978 until now the pursuit of sports teaching reform by the education and sports circles has not stopped, a lot of progress has been made in the reform of physical education, teachers still pay more attention to the systematic sports skills, yet insufficient attention is paid to the cultivation of students' abilities and emotional experience. According to the results of the National Student Physical Fitness and Health Survey in 2014 students' physical fitness and health shows a downward trend. These conditions indicate that the traditional physical education model needs to be changed and improving the conversion rate of the innovative achievements of the physical education model is one of the effective methods to improve the quality of teaching and the health of students. Although the majority of teachers have both subjective and objective desires and actions for reform, the results of reform are not ideal due to the limitations of various factors. Among them, an institutionalized and effective transformation mechanism is the key to solving the problem. Under this premise, in order to solve the above-mentioned problems and obstacles, promote the reform of China's physical education teaching model and improve students' learning enthusiasm, improve students' physical fitness, and promote the cultivation of lifelong sports, this thesis was born accordingly.

Objectives

1. To study whether the innovation on curriculum has a positive influence on student engagement.
2. To study whether the innovation on faculty and instruction has a positive influence on student engagement.
3. To study whether student engagement can be converted into an increase in students' actual exercise time.

Expected benefits

Theoretical significance: perfecting the theoretical system of physical education teaching, the research results of physical education teaching models are rich, especially the experimental research and application results are numerous, and the theoretical system of physical teaching models still has some defects. For the research of this subject, a brand-new physical education model is introduced into school physical education. The innovation of physical education model can play a positive role in enriching and perfecting physical education theory, and in the construction and development of school physical education theory. At the same time, it provides certain theoretical support for further deepening the reform of physical education in our country and promoting the reform of physical education mode.

Practical significance: There are abundant achievements in the innovation of physical education teaching model, but it is rarely used in practice. This research will explore the fundamental factors that hinder the application of innovative achievements in physical education teaching to the physical education classroom, propose a transformation mechanism for innovative achievements in teaching models to improve the transformation rate of innovative achievements in physical education, and substantially promote the reform of physical education.

Literature Review

Physical Education

To improve the status of physical education, physical educators must first continue to promote and implement the curricular and instructional innovations that exist (Cariaga, 2014). Second, physical educators should explore ways to develop more community-based support for their programs.

Physical Education Model Innovation

With the continuous deepening of the concept of quality education, the importance of physical education and teaching has been widely valued. The innovation of high school physical education is a systematic project. First, innovate the student-oriented physical education content design, strengthen the student's dominant position in the classroom, and stimulate students' enthusiasm and initiative to participate in physical education. Yang Xiuqing, Ren Jing, and Yu Hongbo's First, innovate the student-oriented physical education content design, strengthen the student's dominant position in the classroom, and stimulate students' enthusiasm and initiative to participate in physical education. Finally, strengthen the innovation literacy of physical education teachers. Physical education teachers are direct participants in the innovation of physical education teaching in high schools.

Teaching management and curriculum innovation

In order to enable students to have a better learning atmosphere and enable them to gain more in their learning, schools must carry out teaching management related work in the specific teaching process. In the education process, teaching

management personnel, as the main body of the implementation of management work, need to effectively manage related links such as teaching plans, teaching organization, and teaching quality, so as to create a good teaching atmosphere and improve the teaching quality of the entire school (Qin Haiquan, Li Ruijie2018). With the continuous development of society, the past teaching management methods can no longer meet the current social needs. There are some problems in the teaching management of high schools.

In order to improve the teaching management level of high schools Lucas, (2011), relevant staff must break the traditional ideas of the past, learn advanced teaching management concepts, establish clear management goals, constantly innovate the management system, improve their professional qualities, and serve as teachers. Create a good teaching and learning environment with students.

Curriculum innovation

Curriculum holds an outstanding place when seeking to promote innovation in education, as it reflects the vision for education by indicating knowledge, skills and values to be taught to students. It may express not only what should be taught to students, but also how the students should be taught. Curriculum innovations can include new subjects, combinations of old subjects or cross-cutting learning objectives. CEN Yixuan, Zhang Shouwei They may also take a form of new content, concepts, sequencing, time allocation or pedagogy. Education systems need to become more innovative in their quest to improve quality, access and equity in a cost-effective manner.

Student engagement

Effective measurement and monitoring of the educational process has become a new model for evaluating the quality of higher education globally.Liu Yang (2019)Student participation connects students' study and life process at high school with the results of higher education, which largely affects the transition of higher education quality assessment from focusing on the outcomes of high school education to at the same time focusing on the process of high school education.

Student Put in Exercise Time

Teenagers are the future of the motherland. Adolescence is the basic stage of the formation of human physical health. It is very important to attach great importance to the development of adolescent physical health Huang Qian (2019). But the physical condition of young people in China is not optimistic.The main cause of poor physical fitness in adolescents. It is related to people's living habits and diet. Parents are more concerned about their children's academic performance and neglect physical exercise. The education sector lacks scientific and effective means of promotion. All the sports venues and equipment in the school cannot meet the daily sports needs of students. It can improve academic performance, social assimilation, relieve stress, help students focus, understand the importance of exercise, health and nutrition, and instill positive behavior.

According to the above-mentioned literature data, the conceptual framework obtained by the researcher is:

Conceptual Framework

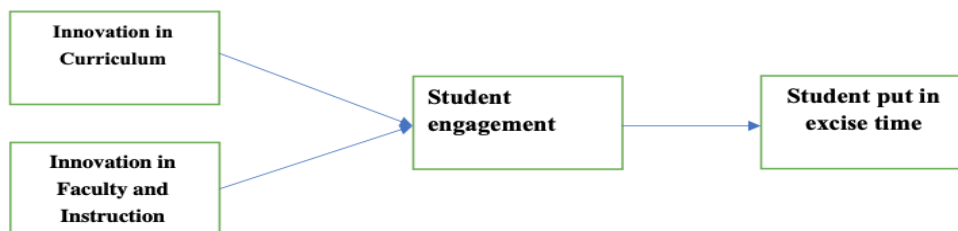


Figure 1 Conceptual Framework

Source: national association for sport and physical education (2019)

From the literature review get the hypothesis:

Hypothesis1:The innovation on curriculum has a positive influence on student engagement.

Hypothesis2:The innovation on faculty and instruction has a positive influence on student engagement.

Hypothesis3:Student engagement can be converted into an increase in students' actual exercise time.

Research Methodology

Researchers study papers, articles, theories, principles, and related research to determine the scope of research and create research tools that cover research goals. The questionnaire survey method will be used for collecting data, respondents will be the individuals who are studying in the Hebei Shijiazhuang 1st high school to represent the population,after calculate (Lamola, Yamane, & Trozzolo, 1973). A total of 650 questionnaires are randomly selected from students of different majors in the school after excluding cases with variable missing values,a total of 630 valid questionnaires are obtained, the questionnaire response rate reached 96.9%..

The first part: The questionnaire is used to investigate the personal factors of respondents: gender, the academic year of student, physical conditions, approximate exercise time per week, attitude towards exercise. This includes measures of nominal scale and sequential scale.Part 2: Evaluation of innovation in physical education Questionnaire consists of 7 items of 2 categories (innovation of curriculum, innovation of faculty and instruction),this section uses Level 5 scale (Likert Scale)Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015) to measure the interval scale.

Very important (5score),
Importance (4score),
Medium (3score),
Less (2score),
Minimum (1score).

Table 1 Demographic characteristics the sample

		(n=630)				
variable	values	Frequency	Percent	Valid Percent	Cumulative Percent	
Year of study	Valid	year1	371	58.9	58.9	58.9
		year2	220	34.9	34.9	93.8
		year3	39	6.2	6.2	100.0
Gender	Valid	male	261	41.4	41.4	41.4
		female	369	58.6	58.6	100.0
Health status	Valid	very good	302	47.9	47.9	47.9
		good	169	26.8	26.8	74.8
		neutral	140	22.2	22.2	97.0
		poor	14	2.2	2.2	99.2
		Very poor	5	.8	.8	100.0
Preference to sport	Valid	very like	158	25.1	25.1	25.1
		like	149	23.7	23.7	48.7
		neutral	252	40.0	40.0	88.7
		dislike	53	8.4	8.4	97.1
		very dislike	18	2.9	2.9	100.0
Average exercise time per week before	Valid	more than 7 hours	120	19.0	19.0	19.0
		5-7 hours	88	14.0	14.0	33.0
		3-5 hours	154	24.4	24.4	57.5
		1-3 hours	153	24.3	24.3	81.7
		less than 1 hour	115	18.3	18.3	100.0

This part defines the frequency and percentage of demographic data which are gender, age, year of study, health status and so on. The table shows that the sample size is 630, of which 41.4% are male and 58.6% are female.

Research Results

Validity and reliability of the instrument:

The Cronbach's alpha of the questionnaire, it can be seen that the Alpha reliability reaches 0.892 and the standardized items reliability reaches 0.894 which means the reliability of the questionnaire reached a very high level. The KMO value is 0.934, and the validity test passes. Hsu et al. (2010), Burt & Encinas (2000), and Hu & Jasper (2006), and others. The survey instrument as follows tables 2.

Tables 2 The Survey instrument

Evaluation list	Evaluation		
	μ	σ	Results
IV1. Do you think the University has well popularized the importance and necessity of learning physical education courses	1.83	0.891	Agree

Tables 2 The Survey instrument (Cont.)

Evaluation list	Evaluation		Results
	μ	σ	
IV2.Do you think that the physical education curriculum achieves interdisciplinary teaching such as a combination of psychology and human sports science	1.85	0.905	Agree
IV3.You think the University management team(curriculum maker)listens well to the needs of students	1.90	0.958	Agree
IV4.In you opinion, the teaching methods and content of faculty members should be taught in accordance with their aptitude	1.85	0.889	Agree
IV5.Do you think that the teaching staff can combine a variety of teaching methods to carry out teaching activities	1.80	0.861	Agree
IV6.Do you think the faculty will promote, encourage and strengthen self directed learning.	1.82	0.853	Agree
IV7.The performance of students is actively	1.85	0.898	Agree

Model establishment: Student engagement was selected as the explained variable, which was recorded as Y. The variables in the above table are used as explanatory variables, and the form of the equation is multiple linear regression equation, which is set as follows $y = \beta_0 + \beta_1 x_1 + \dots + \beta_{10} x_{10} + \mu$. Where, $\beta_0, \beta_1 \dots \beta_{10}$ refers to regression coefficient, μ refers to random error term

Table 3 variable description

IV	
X1	School papalized the importance and necessity of PE
X2	Interdisciplinary curriculum
X3	School management team listens
X4	Teach students in accordance with their aptitude
X5	Combine a variety of teaching methods
X6	Promote, encourage and strengthen self-directed learning
X7	Performance of students is actively supervised and guided

Hypothesis 1 test and the results

Regression analysis was carried out. The following analysis results are obtained table4. R-value equals to 0.792a, and R square equal to 0.627. The adjustment R2 of Model is 0.625, and Sig.= 0.000<0.05. The equation indicating the relationship between School palatalize the importance and necessity of PE, Interdisciplinary curriculum, School management team listens and student engagement can be formulated as:

$$Y=0.328+0.353* X3+0.318* X2+0.156* X1$$

Table 4 Given (1)

Multiple R:0.627
R square:0.792
Adjust R square:0.625
Stand error:0.557

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	325.786	3	108.595	350.317	.000b
	Residual	194.055	626	.310		
	Total	519.841	629			

a. Dependent Variable: Engagement
b. Predictors: (Constant), IV3, IV1, IV2

	Unstandardized coefficients	standardized coefficients	t	P
Constant	0.328	0.053	6.175	0.000
IV1	0.156	0.045	3.495	0.000
IV2	0.318	0.052	6.141	0.001
IV3	0.353	0.044	8.006	0.000

Hypothesis2 test and result

R-value equals to 0.832a, and R square equal to 0.692. The adjustment R2 of Model in Table 5 is 0.690, and sig.= 0.000<0.05. The equation indicating the relationship between Teach students in accordance with their aptitude; Promote, encourage and strengthen self-directed learning; performance of students is actively supervised and guided and student engagement can be formulated as:

$$Y=0.209+0.388* X7+0.248* X6+0.226* X4$$

Table 5 Given(2)

Multiple R:0.692
R square:0.832
Adjust R square:0.690
Stand error:0.506

ANOVAa						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	359.563	4	89.891	350.525	.000b	
Residual	160.279	625	0.256			
Total	519.841	629				

a. Dependent Variable: Engagement
b. Predictors: (Constant), IV7, IV4, IV5, IV6

	Unstandardized coefficients	standardized coefficients	t	P
Constant	0.209	0.049	4.260	0.000
IV4	0.226	0.055	4.118	0.000
IV5	0.044	0.061	0.721	0.471
IV6	0.248	0.063	3.943	0.000
IV7	0.388	0.064	8.454	0.000

Hypothesis3 test and result

It can be seen table 6 that for the question after taking the course, have significantly increased your extracurricular exercise time, R-value equals to 0.08a, and R square equal to 0.006, The adjustment R2 of Model in Table is 0.005, and sig.= 0.044 < 0.05. Indicating that intermediate variable can explain student engagement at a level of 8%, which is a low level.

Table 6 Given (3)

Case Processing Summary			
		N	Marginal Percentage
exercisetimeincreaseafter	time decreases	119	18.9%
	time remain	267	42.4%
	increase more than 1 hours	168	26.7%
	increase more than 3 hours	47	7.5%
	increase more than 5 hours	29	4.6%
	Valid		630
Missing			0
Total			630
Sub population			5

Multiple R:0.006
R square:0.080
Adjust R square:0.005
Stand error:1.016

ANOVAa						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.212	1	4.212	4.083	.044b
	Residual	647.820	628	1.032		
	Total	652.032	629			

a. Dependent Variable: exercisetimeincrease-after
b. Predictors: (Constant), Engagement

	Unstandardized coefficients	standardized coefficients	t	P
Constant	2.534	0.093	27.323	0.000
engagement	-0.090	0.045	-2.021	0.044

Summary of the Study

The researchers recommend that future researchers use a mixed approach to study this topic. According to the conclusions of the quantitative research, interviews were conducted with teachers and students of the respondents in schools, and teachers were interviewed with experts in physical education teaching. Rich scientific research experience, consulted and discussed the transformation of the innovation mechanism of physical education model; through interviews with respondents, students can further analyze why students' participation in sports activities has increased, but the time devoted to extracurricular sports has not increased. The researchers suggest that future researchers could add several more variables to express factors. The researchers suggest that future researchers can build a comprehensive model that includes all the relationships in the model, as the study did not test the relationship between independent and dependent variables.

Discussions

In the process of curriculum innovation, the premise to be guaranteed is that Syllabi and curriculum guide are aligned with current local, state, and national standards; school improvement plan is developed and communicated to all stakeholders.

This is because according to the curriculum concept of the "Full-time Compulsory Education Physical Education and Health Curriculum Standard (Experimental Draft)", the core of the current physical education and health curriculum in China is to meet the needs of students and attach importance to the emotional experience of students, and promote a fully developed society the growth of the new ideology, from the design of the curriculum to the evaluation of each link, always puts students' active and comprehensive development in the first place. This

requires physical education teachers to break away from the existing deep-rooted traditional physical education model and research a new physical education model based on the new concept of the new physical education and health curriculum standards. to develop the School Improvement Plan that requires the involvement of stakeholders, the negotiated decision-making process can include all stakeholders affected by the decision, so that innovation can take into account all stakeholders, maximize benefits and minimize losses as much as possible.

IV5 in is the teaching staff can combine a variety of teaching methods to carry out teaching activities. Because of its $\text{sig.}=0.471>0.05$, it is excluded from the regression equation, which shows that the faculties are not complete in the school. To achieve the teaching staff combine a variety of teaching methods to carry out teaching activities, the traditional physical education teaching model is one of the most representative physical education teaching models in our country, and has always been favored by front line physical education teachers. Affected by the educational ideology of the "intellectualism" of the former Soviet education system, the teaching of basic knowledge, basic skills and basic technical teaching is emphasized, and the concept of sports skills education is the guiding ideology. The teaching method is relatively rigid. In the next section, the researcher will give a recommendation based on the current problems in physical education in China.

Through the statistical study of student engagement and student put in exercise time, it is concluded that student engagement has a negative correlation with student put in exercise time. Although the value of coefficient is relatively small, it still reflects the current physical education in Chinese high school. Some of the current problems in the Chinese Academy of Sciences, the most important ones are the low conversion rate of the results of curriculum and teaching method innovation, and the degree to which students are encouraged and motivated to learn independently.

The teaching process is usually divided into the beginning part, the basic part and the end part. In classroom teaching, the teacher first puts forward the teaching tasks and goals according to the syllabus to make students understand what to do, and makes students clear on the basis of perceptual knowledge through explanation and demonstration methods. What to do, and then use the complete method, decomposition method, and error correction method. Under the guidance of the teacher, organize students to gradually master motor skills after repeated exercises. Finally, the teacher will make a summary evaluation of the students' learning results. The traditional physical education mode is to act in a unified manner under the command of the teacher, so the teacher student relationship emphasizes that the teacher is the center, the teacher is the leader, and the student is only the receiver. It is precisely because of the leading role of the teacher that the teacher can control the classroom situation at any time, strictly control every link of the teaching in the teaching organization, strictly control the density and intensity of the exercise, which is conducive to the teaching of sports techniques and enables students to effectively master the basic knowledge and basics. The learning of skills and basic techniques has also played a positive role in improving students' physical fitness. However, this learning mode ignores the subjective initiative of students, so that students are always in a passive learning state and do not actively participate in physical education activities.

Recommendations

At present, China has the following problems in the process of transforming sports teaching innovation achievements: 1. The education department's policy guidance is not strong, resulting in insufficient motivation to promote the transformation of sports teaching achievements; 2. The closed nature of teaching activities makes various teaching resources lacking. The integration has led to the waste of teaching resources; 3. The lack of strict physical education management systems and policy guarantees; 4. The lack of scientific and correct attitudes and value orientations in the process of physical education teaching models for physical education teachers, and the lack of corresponding new teaching models knowledge accumulation; 5. The assessment and evaluation system is tailor-made for traditional teaching models, and the promotion of non-traditional physical education models is not fully encouraged.

The Ministry of Education and its subordinate Department of Education should actively promote the development of physical education guidance, and promote the formation of a policy environment in schools that encourages innovation and promotes the transfer and transformation of scientific and technological achievements.

Running schools behind closed doors not only cause education itself to be closed and narrow, but also a great waste of educational resources. The teaching method is essentially the use of various methods and means to promote the smooth and effective development of "communication" and "learning". A good teaching environment can stimulate students' positive emotions and fully mobilize students' learning enthusiasm. The open experience teaching model insists on openness in the breadth of teaching content. Deepen the reform of the system and mechanism, enhance the vitality and vitality of education development, by promoting the reform of the education management system.

The purpose of the innovation of various physical education teaching models is to better improve the learning effect and classroom efficiency of students, highlight the status of students as the main body of the classroom, and let students become the masters of the classroom.

Physical education reform is a long-term work with characteristics of complexity and uncertainty. Educational departments at all levels can first plan a small number of schools as teaching pilots, and experiment with teaching models suitable for promotion in pilot schools. Then, the more successful teaching model will be transformed into a nationwide popularization.

The reform of physical education is aimed at improving the quality of teaching and cultivating students' lifelong physical exercise habits. Teachers should use this goal as the teaching goal to carry out physical education activities, strengthen the study of professional theoretical knowledge, and use it flexibly according to the physical needs of students. Different teaching modes carry out teaching activities.

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The Impact of Educational Program Innovation on Youth Emotional Intelligence: A Case Study of Outdoor Development from Chengdu Youth Activity Centre

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Abstract

Emotional intelligence is one of the important abilities that individuals need to adapt to survive, compete and develop in modern society. This paper is a meaningful practical exploration of the expansion of quality education for young students under new historical conditions. It will broaden ideas and provide insights into the systematic deployment and implementation of educational project innovation to operate the mutual integration of emotional education with moral and functional education, which in turn will have a positive contribution to the normalization, systematization, and orderliness of educational project innovation emotional intelligence education, as well as the comprehensive development of young people's multiple intelligences and personalities.

Keywords: educational project innovation, experiential teaching, outdoor teaching.

Background and Statement of the problem

As a means of achieving educational goals, the curriculum has always been at the heart of the education system and therefore central to the process of developing people into certain individuals. The way forward for developing emotional intelligence lies in reform, of which curriculum reform is key. For a long time, the core of our basic education curriculum has changed with the dominant culture of society, with a single structure that is not conducive to the development of students' judgment and overall quality. Without a reform of the secondary school EQ curriculum that is in line with the trend of the times, secondary school EQ will lack the ability to develop secondary school students' ability to respond to multiculturalism proactively.

Based on this, the General Office of the Central Committee of the Communist Party of China has promulgated the Opinions of the General Office of the State Council on Further Strengthening and Improving EQ in Primary and Secondary Schools in Response to the New Situation, and the Ministry of Education of the People's Republic of China has issued a guiding article on Cultivating and Promoting Socialist Core Values around Building Virtue and Raising People. Together, they point to important resources for expanding the content of the EQ curriculum in secondary schools - the soil of local culture and the roots of traditional culture. We expect secondary school students to grow up to be highly qualified people who will bear the heavy responsibility of the country's future, so we need to give them a clear understanding of the moral spirit of their own country; we expect secondary school students to be able to cope with the modern trend of the multi-polar development of the world, so we need to constantly absorb and make use of the advanced concepts of emotional intelligence from other countries. Only through inheritance can we develop and learn can progress through inheritance. We need to further improve the moral education system for secondary school students, and we need the local culture to

provide us with the resources for the content of the EQ curriculum. These local resources are an order, philosophy, and spirit that have been Overview and formed by local people under a long historical development, and have a strong fit with our concept of emotional intelligence itself, so there is a realistic basis for drawing from empirical resources to expand the content of the secondary school EQ curriculum.

Secondly, under the good social context of reform and opening up, many schools have recognized the drawbacks of confining EQ to bookish knowledge and have boldly tried to reform the form of EQ. Experiential EQ is an excellent product of this phase. In response to the drawbacks of traditional indoctrination, experiential EQ activities place greater emphasis on the subjectivity of students' cultivation of their overall qualities. As the content of EQ is no longer static, experiential re-production, integration and creation have become the order of the day. In this form, innovative forms of experiential EQ combined with experiential learning have become an inevitable need to expand the content of secondary school EQ courses.

This paper explores the reasons for experiential EQ from the perspectives of EQ recipients, EQ educators, new content, affirms the value of experiential, EQ, and sorts out the rationale for its implementation, aiming to provide sound and powerful theoretical support. At the same time, it focuses on improving students' overall competence and Emphasis on the importance of quality the importance of social platforms to build a long-term foundation of emotional intelligence that integrates Chengdu's local culture; and emphasizes cultural confidence and the use of experiential reflection to promote students' development.

Objectives

1. Building a synergy of educational vehicles

Guide students to adhere to the correct values, independent thinking, and active practice of the three major curriculum concepts. Therefore, through the study of the integration of local culture and experiential emotional intelligence curriculum exploration, to achieve the original intention ideological character subject teaching innovation breakthrough, focus on the teaching links of innovative research, formal emotional intelligence application will provide data and theoretical reference for future innovation and improvement of secondary school ideological character curriculum implementation.

2. Fully exploit the role of new media carriers

Increase the coverage of new media carriers and expand the use of new media carriers. Fully exploit the educational factors of various new media, make use of new media platforms such as WeChat, Weibo, and QQ to the car, try out ideological and political education, and occupy new positions in the network of emotional intelligence education with advanced culture.

3. In terms of curriculum reform strive to integrate local traditional culture on the based on memotional telligence research.

The dissection and interpretation of local traditional culture can strengthen patriotism, collectivism, and socialism education for students, closer to their daily lives and more in line with the moral values they receive in their formative years. Numerous moral role models have emerged from a wide range of localities in China, each of which is a different inheritance of local Chinese culture. They are not created out of thin air, nor do they rely solely on verbal proclamations; they are rooted in the local culture and practice the lives of individuals.

Expected benefits

Teachers give the classroom back to the students; the teacher is only the director's role for the students in the classroom; the students are the protagonists in the classroom, allowing them to play to their heart's content and 'perform' to the best of their ability. In short, a study student-centering philosophy means that teachers give the classroom back to the students, who are irreplaceable and important participants in the learning process. In such a classroom, students gain their true selves and learn comprehensive knowledge that contributes to their academic development, in addition to book knowledge.

1. Scientific inquiry should focus on the process and on developing participants' emotional intelligence in problem identification and problem-solving, while the outcome is secondary.

2. Participants should be guided to learn to manage scientifically and to strengthen the management of the five aspects of time, space, money, manpower, and emotions, and specific methods and ideas should be proposed to guide young people to learn to manage with emotional intelligence.

3. To carry out educational project innovation and practice activities, we should focus on independent exploration, timely and effective guidance and reflection on inspiring and deep-rooted issues, and lead education to depth.

In short, educational project innovation is not simply a training program, but a process of transforming the fragmented knowledge and mechanical processes learned into a process of exploring the world. Therefore, we should introduce educational project innovation into science and technology venues to make them better integrated and to better develop young people's sense of innovation and emotional intelligence education.

Conceptual Framework

1. Emotional intelligence, defined by Mayeralovey(2004), lu Jamie (2005), xu sheng et al. (2013), Wu Xiaoyang (2014): emotional intelligence is the consciousness and ability of individuals to socialize their emotions rationally through active regulation based on cognition; It is the internal power source linking individual value pursuit, will and self-motivation. It is the emotional mind that promotes cognition and the cultivation of personality quality. The four dimensions of operation are defined as follows:

- Recognition of self-emotion -- refers to the ability of the emotional subject to timely and accurate recognition and awareness of self-emotion in different situations and states as well as the positive and negative attributes of this emotion.

- Self-emotion management -- it refers to the regulating ability of subjects to be active and restrain impulses, timely control negative emotions, and release positive emotions to a certain degree based on understanding and awareness of their own emotions.

- Recognition of others' emotions -- it refers to the subject's ability to observe and recognize others' emotional changes promptly and adapt to empathic responses.

- Interpersonal relationship management -- refers to the ability of the subject to actively adapt to the interpersonal environment and work harmoniously with others and groups to obtain interpersonal support and help.

2. EQ education: This study adopts the definition made by Zhu Xiaoman (2011) and Xu Sheng (2008): EQ education refers to the education in a certain direction, to follow the law of education and through the education development

pedagogue's mind and potential function, use modern scientific culture and humanistic culture dominant educatees correct understanding and control of self-life attitude, value orientation, needs, motivation, such as psychological activities, guiding educatees emotional mechanism and physiological and psychological mechanism of coordination work, To pursue the best functional effect of activities, is the process of the education and practice of the trainees to control emotions and cultivate good qualities.

Research Methodology

A survey was designed to investigate the level of emotional intelligence of young people and the current status of innovative emotional intelligence education in educational programs A questionnaire was first distributed to Chengdu High School. To ensure the efficiency of the questionnaire 220 questionnaires were completed by students on-site 209 and questionnaires were returned, with a return rate of 95%. The results of this questionnaire showed the current situation of the application of local culture to experiential emotional intelligence and the current situation of the application of experiential emotional intelligence in Chengdu secondary schools. Finally, the innovative design of the educational curriculum for experiential emotional intelligence in Chengdu secondary schools is discussed about the teaching reality in Chengdu secondary schools. In order To objective and accurate understanding of the development of emotional intelligence in adolescents, this study used a unified five-point Likert option measurement scale to allow students to freely and authentically express their feelings about different issues, and this study used three sets of face-to-face interactive tests to allow students to express their views on different issues in their own words. The specific dimensions measured were as follows.

Independent variable dimension	1	2	3	4	5
Classroom teaching					
1. The teacher sets different learning objectives according to your learning base.					
2. The teacher designs teaching objectives that you can achieve.					
3. higher level development goals are set for students with high learning ability					
4. The teacher will give more complex learning tasks to students with higher learning ability					
Out-of-school classrooms					
1. you think that the school should instead have an emotional business partnership with local cultural carriers					
2. You think that the school should have established an emotional intelligence base based on the school platform.					
3. You think that the schschool'sotional intelligence base established by the school should be innovative.					
4. You think that schools should have a variety of special experiential activities for different grades.					
Of the options, 1 means "strongly disagree", 2 means "less agree", 3 means "average", 4 means "more agree" and 5 means "strongly agree"					
Dependent variable dimensions	1	2	3	4	5

Growth in emo emotional intelligence						
1. Most of the time I am very aware of why I am feeling that particular way at the time						
2. I am very aware of my emotions.						
3. I am always able to understand my friends' emotions by their behavior.						
4. I can control my temper and deal with problems sensibly.						
5. I am a self-motivated person.						
6. I believe that schools should have an emotional partnership with local cultural vehicles.						
Of the options, 1 means "strongly disagree", 2 means "less agree", 3 means "average", 4 means "more agree" and 5 means "strongly agree"						

Research Results

A study of the current state of emotional intelligence of adolescents and innovative emotional intelligence education in educational programs. The main topics include a selection of measurement scales and prediction tests, sampling methods and subject characteristics, empirical statistical analysis of adolescents' emotional and intellectual development, the influence of educational methods on adolescents' emotional and intellectual development, and analysis of factors affecting the development of innovative emotional intelligence education in educational programs.

Figure 4-2 shows the frequency analysis of gender. The number of female students is 1. This indicates that the number of male respondents is relatively high.

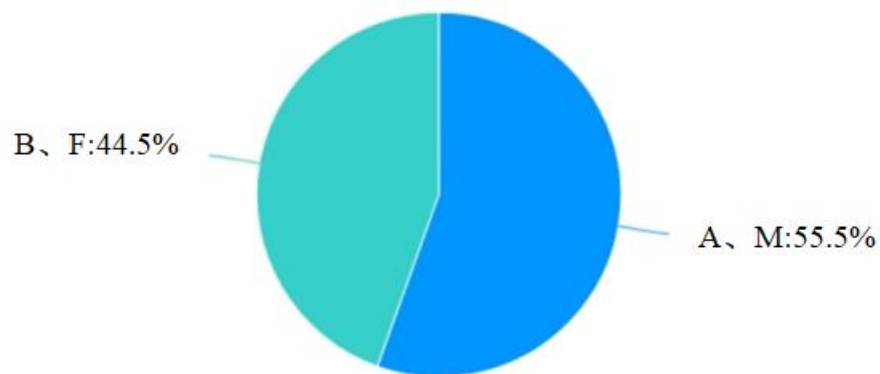


Figure 4-2 Histogram of Genders

Table 1 shows the mean standard deviation and opinion levels, operational results for experiential education innovations and youth emotional intelligence growth

Evaluation list	Evaluation		
	μ	σ	Results
1.Classroom Teaching	14.287	4.861	high
2.Off-Campus Classroom	14.162	5.057	Quite high
3.Experiential Courses	21.976	6.768	high
4.Emotional Growth	22.234	6.825	high

Summary of the Study

Emotional intelligence education, ideological education, and mental health education all act in the direction of the human spiritual world, and we can refer to the integrated synthesis of these three types of education as Greater Moral Education. The strengthening and innovation of the Great Moral Education is the need for the development of human civilization, the need for the comprehensive alignment of education with the human life mechanism, and the need of the innovation of educational projects to cultivate high-quality secondary vocational talents for the society.

At a time when the importance of emotional intelligence to the development of the whole person is well known, the findings of the survey indicate that the following factors have influenced and constrained the development of innovative educational programs on emotional intelligence.

Firstly, in many countries and regions of the world, emotional intelligence education has been formally introduced into the school curriculum. As China's research on emotional intelligence theory started late and the theoretical system of emotional intelligence with Chinese characteristics is not yet mature and complete, emotional intelligence education has not yet been officially recognized as a part of the educational curriculum in China. EQ education has only been introduced in many secondary and higher education institutions as a non-prescribed supplementary education to meet the needs of students' comprehensive development. The lack of a proper name for EQ education in China's education sector has largely limited the awareness and attention that educators and recipients can give to EQ education.

Secondly, as EQ education does not have legal status in the education sector, and because of the long-standing influence of the traditional concept of emphasizing intellectual education over moral, physical, aesthetic, and emotional education, educators and learners generally focus, consciously or unconsciously, on intellectual education in their teaching and learning. This is the reason why there is little overall decision-making and systematic deployment of non-prescriptive and complementary education in schools, and there is no assessment and incentive mechanism for EQ education.

Thirdly, it is an indisputable fact that there is a general lack of professional teachers for EQ education in educational programs. Current teachers have not received formal training in EQ and lack the basic skills to effectively develop the emotional and intellectual potential of young people.

Fourthly, due to the lack of attention given to emotional intelligence education, there has been little practical innovation in the integration of emotional intelligence education into moral and mental health education, and into the teaching of professional knowledge and the development of vocational skills, and little direct

experience of success. At present, many educational programs have not yet developed effective approaches, methods, and strategies for EQ education.

As a result of these four key factors, it is not surprising that EQ education in educational programs is still at a rudimentary stage of dissemination.

Discussions

The above research findings have the following implications for the reform and innovation of youth education practices.

First of all, through the investigation and analysis of the level of emotional intelligence development of adolescents and the current situation of emotional intelligence education in educational program innovation, we can enlighten the innovators and teachers of educational programs to re-understand the necessity and urgency of emotional intelligence education for the healthy growth of adolescents on the one hand. On the other hand, it can provide an opportunity for educational project innovation. On the other hand, it can provide evidence from the frontline for educational programs to strengthen the decision-making and deployment of emotional intelligence education for youth.

Secondly, by analyzing the different effects of four different family education approaches on the emotional and intellectual development of adolescent children, parents are informed that adolescent children are independent subjects with ideas and pursuits, and that simple brutality or over-indulgence is not conducive to the healthy growth of their children. Parents are encouraged to rethink their family education methods and summarise the lessons learned during their children's growth so that they can choose the right family education methods.

Thirdly, the path and way to innovate the organic combination of emotional education and moral-psychological education in the education project are to innovate the "four requirements" of great moral education, which can enlighten educators to deepen their understanding of the development and changes of modern moral education and traditional moral education in terms of tasks, contents, forms, characteristics, and practical requirements.

Fourthly, the path and way of organically combining emotional intelligence education and professional competence education in the education project are aimed at the two psychological processes of student learning, transforming the teaching process and pursuing the teaching context, providing insights to help teachers understand the fundamental difference between indoctrination and quality teaching, guiding them to change their teaching mindset and innovatively choosing the path and way of deepening quality education reform.

Fifthly, the innovative design of the implementation plan for innovative emotional intelligence education in education projects, the four keys that must be grasped for innovative emotional intelligence education in education projects, and the five practical guidance methods for innovative emotional intelligence education in education projects can provide positive insights and references for the innovative planning and operability, systematization and normalization of innovative emotional intelligence education for young people in education projects. The five practical guidance methods for innovative emotional intelligence education in educational projects can provide positive insights and references for innovative planning and operability, systematization, and normalization of educational projects.

1. Content, methods, and intended goals of emotional intelligence education for adolescents

Steps in the implementation of the innovative EQ education program. Following the principle of progressive education, the program focuses on learning the basics of emotional intelligence, guiding students to a proper understanding of themselves, the relationship between today's learning and tomorrow's career, and enhancing intrinsic motivation and self-confidence. For Year 2 students, the focus should be on developing students' ability to manage themselves rationally and handle interpersonal relationships correctly, and on promoting the development of students' knowledge, skills, abilities and values, and emotions through the "four requirements" of emotional and moral intelligence education to improve the quality of classroom teaching. Although the focus of emotional intelligence education is different in the three academic years, it can be cross-promoted.

2. Operational pathways and safeguards

Give full play to the role of various organizations and activities in promoting and demonstrating emotional intelligence education (1) Encourage student organizations to carry out a wide range of emotional interactions close to students' lives through publicity wall posters, knowledge talks, competitions, debates, cultural and sports activities, emotional intelligence fun games, emotional intelligence network salons, volunteer activities, social care activities, etc. (2) In conjunction with organizing activities, linking up A cadre of students involved in emotional interaction is cultivated, through which the class is made more emotionally active.

Recommendations

Emotion is a normal physiological reflection of the human organism, which has both positive and negative attributes and is present in all conscious activities, playing a positive or negative role in one's studies, career and life. Emotions are the result of a person's feelings and emotions, and they often precede the rational consciousness. If they are not restrained by reason in time, they can cause a person's behavior to spiral out of control and cause harm to their education, career, life, and others. Emotional intelligence is the quotient of a person's emotional intelligence, and the level of this quotient is closely related to the person's psychological maturity. Emotional impulsiveness and rebelliousness are important characteristics of adolescents at this age, as they are young and amid their physical and psychological development. Most of the factors that affect the mental health of young students stem from their lack of rational understanding of society and their future studies, and their confusion and emotional disorientation. "Emotional intelligence is not innate or unchangeable, but can be shaped before the prefrontal lobe of the brain is fully developed by the age of 18 (Shen Yicheng, 1997). Most contemporary adolescents are between 14 and 18 years of age, which is the best time to receive education on emotional intelligence. On the one hand, they have a certain amount of cultural knowledge, and on the other hand, they have indirect perceptions of the real world. This makes it easier to achieve relevance and effectiveness when educational programs are innovated and adapted to the psychology of young people's personalities. At the same time, the mission of quality education also dictates that innovative education programs should not only teach students professional knowledge and learning skills, but also the philosophy of life and how to behave. By strengthening emotional intelligence education and helping young people to improve their self-awareness, self-management, self-motivation, and the ability to get along with others, the program will not only help young people to resolve their confusion and disorientation in terms of learning, success, career choice, friendship, health, and

life, but also strengthen their awareness that today's studies are closely linked to their future studies and increase their internal motivation to learn, and effectively help them to learn many social and life knowledge that they cannot learn from books. It also helps young people to learn a lot about society and life that they cannot learn from books, and helps them to become healthy, mature-minded and stable people. From the perspective of young people's self-development, this is a time for promoting the value of human creativity. An important feature of Chinese culture is that it understands human beings as belonging to a class, as derivatives of the social relations to which the individual belongs, and attaches importance to the social value of the individual, whose value and meaning exists because of and is reflected in the group (Xu Xingyan, 2005). For young people to develop themselves and maximize their value in life, they must have strong social skills, and the education they receive on emotional intelligence is a way of developing the social skills they need to adapt to the group environment and realize their value in the group. Social skills education is a weakness in the internal development of learning education in China, and it is also the crux of the problem that innovative students in education programs find it difficult to perform their duties effectively when they graduate and enter the workplace. This is why it is not only necessary but also urgent to innovate in educational programs to teach emotional intelligence.

Due to the constraints of time, energy and capacity, this study also has many shortcomings. For example, the number of sampling units was limited by its resources, and only two schools were selected, so its generalisability could be improved. The study used face-to-face interaction between the classroom teacher and the researcher and the student's responses to the questions were more or less influenced by the presence of the classroom teacher and the researcher, consciously or unconsciously. At the same time, this study used only a simple statistical analysis of percentages, and such findings are subject to a large margin of error. Future studies should reform the sampling method, preferably using a group experiment in which teachers and researchers are recused and students are organized in certain contexts, and then using a comparative analysis of experimental results to assess the current state of students' emotional intelligence levels by attribution, the credibility of the results would be higher. Another example is the differential impact of different family education styles on the development of students' emotional intelligence, and the differences in the emotional intelligence of adolescents in different age groups. This study only collected static cross-sectional survey data, and the statistical analysis of such data can only reflect the correlation between different family education styles, different age groups, and students' emotional intelligence, rather than a causal relationship. In future studies of this kind, a time interval should be allowed for the collection of longitudinal survey data, and only through a comprehensive comparative statistical analysis of the data from both cross-sectional and longitudinal dynamic contexts can the causal relationship between them be reflected more objectively and accurately. The researcher's personal subjective perception and understanding are more important than objectivity, and the reliability, practicality, and operability of these ideas are worth discussing. The reliability, practicality, and operability of these ideas are open to question. Future academic ideas from such research should be put into practice over some time and introduced through the cycle of "awareness-practice-awareness-practice" so that the reliability and operability of the academic ideas can be enhanced.

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Reflections on the Leadership Behavior of Educational Institutions— A Text Analysis of Leadership Theory

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Abstract

In modern society, the increase in the weight of knowledge, the acceleration of substitution and the emergence of new disciplines have contributed to the renewal of teaching content and curriculum reform, calling for the inevitable requirements of lifelong education. To become a knowledgeable teacher, we must adapt to the needs of modern education, constantly learning new things and updating our knowledge structures. The emergence of the knowledge economy requires not only a new way of production, but also a new education to keep up with the times. All these changes cannot be separated from the cultivation and training of knowledge and innovative talents in higher education. Therefore, the breakthrough of comprehensive quality education has become an innovative activity in which everyone can participate.

College students are an important group to promote the development of national entrepreneurial economy, but at present, the number of college students who choose to start their own business is less, the society needs to actively guide college students to start their own business. Individual behavior is induced by individual motivation. College students' entrepreneurial behavior is also driven by their entrepreneurial motivation. Therefore, it is very necessary to study the entrepreneurial motivation of college students, which has important theoretical and practical significance. The development of entrepreneurship education is conducive to promoting and guiding students' entrepreneurship. The research on entrepreneurship education is of great guiding significance to the expansion of educational concepts in colleges and universities, and the construction of a new theoretical system of college education can better play the role of guiding students' entrepreneurship, which is of great practical significance to the development of national entrepreneurship economy. This study focuses on the impact of flipped teaching and curriculum innovation acceptance on students' entrepreneurial motivation by examining the integration model of university students' counselling courses. The first part is the background and significance, the second part is the literature review, the third part is the design and methodology of the study, the fourth part is the results and analysis of the study, and the fifth part is the conclusion and recommendations. The analysis of variables demonstrates that flipped teaching and curriculum innovation have a positive impact on students' entrepreneurial motivation.

Keywords: flipped education; curriculum innovation; entrepreneurial motivation

Background and Statement of the problem

Renovation education as an educational principle has different requirements in different educational levels. Institutions of higher education is not only the talent training base, is also a place for the generation of knowledge and technology innovation, renovation education more performance for cultivating the ability of the students' ability of knowledge transformation and the creation of new knowledge, and constantly learning new knowledge, and constantly update their knowledge structure,

namely train pedagogue independent learning process, the bold exploration, innovation ability, therefore, It is of great significance to explore and implement the integration of ideological and political education and employment education.

Turn since the China education development road continuously strengthened education has led to new Cheng Zhang, flip education through the internalization of knowledge and knowledge reverse arrangement, change the roles between teachers and students in the traditional teaching the use of classroom time to plan, implement the innovation of traditional education to the traditional education model usually includes knowledge and knowledge internalization in two stages. Knowledge imparting is accomplished by teachers' teaching in class, while knowledge internalization is accomplished by students' homework, operation or practice after class. In terms of flipped teaching, this form is overturned. Knowledge is taught after class through information technology, and knowledge is internalized in class with the help of teachers and classmates, thus forming flipped education. However, curriculum innovation is an education that cultivates people's innovative spirit and innovative ability as the basic value orientation. Its core is to study and solve the problem of how to cultivate students' innovative consciousness, spirit and ability in the field of basic education in order to meet the challenges of knowledge economy in the process of carrying out quality-oriented education on the basis of universal nine-year compulsory education. And innovative spirit and ability are not inborn, although it is affected by genetic factors, but mainly depends on acquired training and education. Renovation education process, not a pedagogue passive are shaping process, but to give full play to the subjectivity, initiative, and make teaching process become educated the knowledge, the pursuit of explore and perfect the process of its own, more needs to be adapted to the development of modern education, constantly learning new knowledge and constantly update their knowledge structure, That is, the process of cultivating the independent learning, bold exploration and innovative ability of the educated. Therefore, in the process of flipped education, it is necessary to cultivate young people's innovative consciousness, innovative ability and practical ability.

There should be innovation in the teaching process so that the potential of young people can be better developed. The best education is the education that excavates the potential of people. These qualities can be cultivated in general through proper physical, emotional and intellectual handling. Young people are like the sun at eight or nine o'clock, full of vigor and vitality, often like bright music, which is decided by the psychological characteristics of the period they are in, must follow this psychological law. It can be seen that when young people are motivated to learn, they can learn well by self-study. In traditional education, authority figures (teachers) want answers and solutions that they know well, but don't want to see things that surprise them, so it's hard to foster creativity. In the teaching process, students have a significant feature is active, combined with the characteristics in classroom teaching, can use of dynamic method, on the one hand, can satisfy the desire of students' psychological dynamic, on the other hand, can let students in learning dynamic cultivate interest in learning, the potential of imagination, creativity, and other aspects. In this way, students can avoid monotonous and boring learning in dynamic learning, and inspire students' potential, so that they can fully enjoy the happy learning process. Renovation education is to make the whole educational process endowed with the characteristics of human innovative activities and take this as the basis of education to achieve the goal of cultivating innovative talents and realizing the overall development of human beings. For a long time teachers seem to have been

used to this understanding of research that research is something that experts do, and our teaching and research is the completion of school teaching tasks, teacher knowledge acceptance and implementation. However, in fact, the images of teachers and researchers can be overlapped. Teaching activity itself is the site of our educational research and the cultivation of our creativity. Teachers should think about how to teach just like an education researcher. But when a teacher is so knowledgeable about his education that he is confident that his teaching will be on a roll. The idea that education has become a researcher has gradually been accepted in the minds of today's teachers. It is even the only way for the professional development of school teachers in many regions and an important symbol of an excellent teacher.

This is consistent with the pace of development of human society. In the internal renewal of education, teachers should pay attention to the continuous development of students and gradually accept students who are different today and yesterday. The renewal of students means the renewal of teachers, and teachers should accept and make continuous progress with the development of students. Teacher can't ignore the students in the process of constant development, with the students' own development, teachers don't think is likely to happen, the teacher is in order to update education and social development, must begin from student development, to wait and face, this is a look at a simple and practical in practice it is hard to work, nature to believe that he will keep the students in developing forward continuously, We want to see the development trend of students, just like watering flowers, we do not stop to nourish these roots, finally give him sunshine, one day, will blossom, to believe that students today and yesterday is different. Our students have different educational backgrounds and different levels of IQ and EQ. Education is constantly updated, students are also sure to continue to develop, the update of education and the development of students is certainly an indispensable driving force for social development. Then the renewal of education itself is extremely important. Within education, the majority of educators gradually realize that the renewal of education is the main factor that has become the value and significance of education itself. Every student has a different educational background, we should pay enough attention to it, and really treat the student as a vibrant and specific person, so that educational activities to the individual. We should recognize that everyone is an individual and everyone is a concrete person. Therefore, flip education is to cultivate innovative people. Flip education is to follow the principle that people are still human selves, that is, concrete people, whose intrinsic nature and world outlook are unique in the performance of mutual relations with others. Therefore, we should pay attention to the cultivation of students' self-esteem. In the renovation of the education of students, we should understand that students are unique people and try to make him outstanding in the field of labor creation.

In modern society, the increase of knowledge weight and the acceleration of replacement and the emergence of new subjects have promoted the renewal of teaching content and curriculum reform, calling for lifelong education, and continuous learning has become the inevitable requirement of modern people. The teacher becomes the knowledge imparting, must adapt to the modern education development demand, unceasingly learns the new knowledge, unceasingly updates own knowledge structure. Inheritance is learning; Innovation is learning. The education of innovative talents should include two aspects: innovative spirit and innovative ability. Among them, innovation spirit mainly consists of innovation consciousness and innovation quality. Teachers in the face of such students, first of all to their character temper,

family background, learning style, thinking characteristics to understand clearly, so that in the classroom can "make every student's strength and the possibility to play out, make him enjoy the pleasure of success" of the mental work, only such ability can see our students is a in the development of the individual. Innovation ability includes people's innovation perception ability, innovation thinking ability and innovation imagination ability. From the relationship between the two, the spirit of innovation is an important internal factor and subjective condition that affects the generation and development of innovation ability, while the improvement of innovation ability is the most favorable rational support to enrich the spirit of innovation. To carry out renovation education is to start from cultivating innovative spirit, take improving innovative ability as the core, and drive the independent construction and coordinated development of students' overall quality. The rapid development of science and technology new technology, new achievements constantly emerging, rapidly changing information organizations. The dizzying, only constantly get new information and reserves, to master the latest development of science, to make things have keen insight, produce the inspiration of innovation, otherwise, the innovation will be the source of water and soilless wood, as a result, Teachers need to guide students to harvest knowledge beyond textbooks, reserve new energy and new knowledge, and impart the motivation of continuous cognition and innovation of knowledge.

Renovation education as an educational principle has different requirements in different educational levels. Institutions of higher education are not only the bases of talent training, but also the places of knowledge generation and technological innovation. Renovation education is more manifested in cultivating students' knowledge transformation ability and the ability of creating new knowledge. However, in the stage of basic education, the purpose of renovation education is not to make students invent many new things, but to cultivate students' innovative consciousness, innovative concept and innovative attitude through effective education and teaching approaches, and shape their creative ability. As a principle, renovation education means that the school's education and teaching work must take the cultivation of students' creative ability as the core, through active management and effective teaching, update students' innovative ideas and attitudes, and cultivate students' innovative spirit and innovative ability, which comes down to "teaching for innovation". The subject of the experiment is students and teachers, and the object of the reform is the teaching behavior pattern of course learning and classroom teaching. Therefore, the focus of renovation education should be put on the renovation of education mode, content and method, as a breakthrough to deepen education and teaching reform and promote quality education in an all-round way, and become an innovative activity that all teachers and students can participate in.

Today's society is an era of knowledge economy based on knowledge, information and technology and driven by innovation and entrepreneurship. The rise of knowledge economy not only requires the new mode of production and people to adapt to the new mode of production, but also requires the new education to adapt to The Times. We must continue to take scientific and technological progress and innovation as an important support for accelerating the transformation of the pattern of economic development. We are urgently required to place independent innovation in a prominent position, make it the internal driving force of national economic development, accelerate scientific and technological progress, strive to improve innovation capacity, at the same time speed up the adjustment of economic structure,

enhance the contribution of science and technology in the process of social and economic development. In the outline of the 12th Five-Year Plan, the state has clearly put forward "innovation-driven" as the main line of "transforming the mode of economic development". Due to the disappearance of demographic dividend, aging society, resource depletion and other reasons, resource-driven economy has faced the limit of growth, and the economic development mode urgently needs to change from "resource-driven" to "innovation-driven" stage. "Resource-driven" focuses on factors such as labor force, raw materials and capital, while "innovation-driven" focuses on the creativity, innovative spirit and ability of all educatees. In essence, from the original increase in the consumption of material resources to the dependence of advanced science and technology, the overall improvement of the quality of labor and innovative management status quo. All these changes without higher education for knowledge innovation and cultivate and bring up creative talents, especially more from high level and high quality research universities of the country's overall innovation ability raise, theoretical innovation and culture lead for huge handle, at present, the public business, has the concept of innovation is becoming more and more deep.

Teachers' professionalism and sense of honor is of great significance in the education work, as a teacher only when they realize their career is indispensable to social development and human progress career, he can enthusiastically to cultivate the students' education work, and to cultivate talents contribute their own everything. Loyal to the people's educational cause also requires teachers to carry forward the candle spirit willing to do hard gardener ladder. Only in this way, they can devote themselves wholeheartedly to the education work, lifelong dedication to education, and with their own wisdom key, open the door of students into the treasure house of science and culture, with their lofty moral character and sound personality, shaping students' beautiful hearts. Loyal to the people's educational cause, teachers must have a firm sense of dedication and a strong sense of honor. In terms of learning, if you want to be a vocational teacher, you should not be a well but a fresh spring to update your knowledge at any time, and seek advice from colleagues with an open mind to make up for your own shortcomings. At the same time, we should skillfully use methods in teaching so that students can be interested in learning knowledge at the same time.

Education is large and wide, all over the country in small and medium-sized towns. Students usually study or find jobs nearby. Majors are generally set up according to the actual needs of the local society, with clear objectives, suitable majors, tailored to the application, and graduates are very popular in the society. A lot shorter development time renovation of education for common function significantly improve national scientific culture quality, renovation education to the development of the region is very important for the economic and cultural characteristics, to renew the education blossoming, around is conducive to common prosperity, to live and work in peace and contentment, renew the education graduates are the future will also be an important factor in the development of the economy and culture in this region, Higher education only to retain and play, in considering the traditional elite education at the same time, also considering the education requirements of most ordinary people, able to attract them into the institutions of higher learning, can truly toward popularization, renovation of education is to meet the demand, therefore, it is an indispensable important part in national higher education, It is an important factor to accelerate the popularization of higher education.

Education is the product of social development, the development of human civilization, and the development of human beings themselves. And it was the product of a particular period of development. Renovation education benefits the society, and the society can also benefit from renovation education. Promoting social development is the due righteousness and sacred responsibility of renovation education. The purpose of renovation education is to meet the individual employment demand and the objective demand of the job post, and then promote the development of social productivity, accelerate the adjustment and transformation of national industrial structure. Students' horizons are becoming wider, and with the support of their parents, many students are leaving the traditional education system to find ways of education and careers that suit their interests. Therefore, professional and targeted renovation education has become a more and more popular option. If you want to get employment, you will have a better industry. Vigorously developing renovation education is essential, which is conducive to improving the quality of employees through education and re-education, enhancing the competitiveness of workers in employment, broadening employment channels and promoting employment and re-employment. It is of great significance to build a well-off society in an all-round way, build a harmonious society and maintain social stability.

Objectives

Governments around the world have fully realized that college students' entrepreneurship plays a vital role in the better and faster development of their own economy, which can solve the problem of college students' employment and provide more employment opportunities for the society. However, how to effectively promote entrepreneurship among college students? Society, government and schools are thinking about this problem and are actively seeking solutions to this problem. The author is also thinking about this problem, hoping to find effective solutions through the research of this paper. This paper takes college students as the research object, through the analysis of university flipped education, the interpretation of entrepreneurship education, to explore the degree of entrepreneurship education, the acceptance of curriculum innovation on entrepreneurial motivation and the mechanism of action. It also discusses how to better design entrepreneurship education projects to cultivate students' entrepreneurial spirit and sense of adventure, effectively improve the success rate of entrepreneurship, and provides basis, suggestions and measures for universities and governments to formulate entrepreneurship education projects and policies.

To discuss the feasibility of applying Chinese experience into Thailand, China's flipped education aims to promote youth employment to serve the society and meet the human needs of serving the group. Human nature is to serve the group. Only in group cooperation, through the efforts of the whole group, can people's lives be better. Education is for the whole group of people, in the way of inspiration, in every person long day labor or hard work, in exchange for his life needs to help his knowledge and ability, so as to understand the relationship between us and the group, try to contribute his strength, to develop the land and material resources and condense forces, the purpose of education for the world and the country to enhance the preparation of productivity. He saw the essential link between renovation education and economic development, productivity cohesion, and manpower is the center of all forces, increase production from education, renovation education to promote national world economic development of modern renovation education. Therefore, China's

flipping experience can be applied in Thailand and promote the development of youth entrepreneurship.

Once established, flipped education will become a guide for people to act. Pointed out the development direction of it is not only for educates, due to the development result, but also for education workers work pointed out the direction and goals, and flip education profoundly affects the education workers education and students view, inspiring education workers to cultivate talents, according to the terms of the education policy and education purpose profoundly affects the education of education workers and students, The inspection of education and teaching quality, the evaluation of teachers' teaching quality and work effect; The assessment of students' learning quality and development degree must be based on teaching purpose. Therefore, educational purpose has a goal-oriented function for both the educatee and the educator.

Renovation education benefits the society, and the society can also benefit from renovation education to promote social development is renovation education's due sense and sacred responsibility, the purpose of education is to meet the individual employment demand and the objective needs of the job, and then promote the development of social productivity to speed up the adjustment and transformation of the national industrial structure. Flip education is the product of social development, the development of human civilization, and the development of human beings themselves. And it was the product of a particular period of development. The purpose of flipped education is to train applied talents and workers with a certain level of education and professional knowledge and skills. Compared with general education and adult education, flipped education focuses on the cultivation of practical skills and practical working ability. Therefore, flipped education is the overall goal of cultivating human autonomy. It is related to what kind of social role and what kind of quality the educatees will be trained into, and it is the starting point of educational practice activities. It is determined according to the needs of certain social productive forces and people's own development, and advocates youth entrepreneurship as the goal.

Expected benefits

Teachers are equipped with the qualities of all-round and harmonious development of morality, intelligence, physique, beauty and labor, and guide and educate students with all-round and harmonious development of personality to promote employment development. Flip educational knowledge also plays an important role in cultivating students' motivation for autonomous learning.

Flip education trains young people to start their own businesses. Flip education not only trains young people to independently impart cultural knowledge, but also has the habit of being good at thinking, and carries out ideological and moral education to shape the young generation's beautiful mind. Through the ability of independent learning to create a certain grasp of cultural knowledge, with a certain moral quality and spiritual outlook of the young members of the society. Although the moral level of each era is ultimately determined by the economic relations of the era, and the ideology of each system is also affected by the complex social relations, the flip education has a direct and strong influence on the moral development of the youth. Not only that, young People's Daily work and life show everything, to students' thought and understanding and behavior habits have a huge impact. Therefore, Flip education in China has a crucial impact on the moral education of young people.

Through the cultivation of independent cognition of young people, not only oral education, but also independent thinking behavior, the goal of choosing their own business can be achieved.

Flip education plays an integral role in schools. School is to cultivate talents in every respect, sets up the flip education reflects the characteristics of innovation education, the school itself with the progress of the society development, breaking the original mechanism of traditional education, promote independent innovation education school itself and attract a batch of want to improve themselves and suffer from can not find the direction of the youth, the school follow social innovation to keep pace with The Times and cultivate a batch of young people, That is to highlight the ethos of the school and give the society to cultivate entrepreneurial youth. Therefore, flipped education plays an important role in schools.

Looking into the future, the Chinese nation's education is bound to achieve unprecedented prosperity. There is still a long way to go for the cause of flipped education. "I see a long way to go, and I will continue to pursue it." With teaching itself being taught and cross and uniformity etc. Factor analysis, to explore and implement the ideological and political education and employment education integration is of great importance, is helpful to overcome traditional pattern malpractice and respond to the new situation, broaden the education carrier, improving the quality of education, above all is to cultivate good ideological and political quality, comprehensive quality comprehensive, solid professional skills, employment of vast space The college students.

The conclusion of this paper can be a reference for the construction and entrepreneurship education in colleges and universities. In carrying out entrepreneurship education, colleges and universities can train students with entrepreneurial motivation to start their own businesses and improve their success rate of entrepreneurship. This will help ease the pressure on employment and contribute to the harmonious and stable development of society.

Conceptual Framework

A review of the literature on factors influencing entrepreneurial motivation reveals that entrepreneurship education is the main factor influencing it. Foreign scholars such as Ruhland (1995), Koh (1996) and Peterman et al. (2003) have shown that entrepreneurship education positively influences entrepreneurial motivation and that individual entrepreneurial motivation can be significantly enhanced through entrepreneurship education.

Research Methodology

Educational scientific research methods refer to the methods used to study educational phenomena and laws. Guided by Marxism, Chinese educational scientific research methods adopt a variety of methods to explore the relationship between the internal elements of education and other things, as well as the changes and laws between the quality and quantity of education. With the development of capitalist production and the rise of education, the investigation method, documentary method and historical method of social science research, as well as the induction method, experimental method and statistical method of natural science research, have entered the field of educational science research. Education research has accumulated a variety of research methods, such as survey, observation, interview method, experiment study, historical study, content analysis, case method, narrative approach,

biography, subjunctive, theoretical research and empirical research, comparative research, ethnography research, education statistics, education measurement, phenomenology of education research, education, hermeneutics, and so on. In particular, it lays a scientific methodology foundation for educational scientific research and makes the use of educational scientific research methods enter a new stage.

Hypotheticals are hypothetical answers to questions posed by the topic and statements about the relationship between variables are made based on these answers. A hypothesis is a hypothetical explanation of an unknown fact based on existing factual materials and scientific principles.

First, be careful and meticulous. Only by consulting data carefully, thinking carefully, discussing and revising carefully, can educational research plans be formulated. Second, be specific. Educational and scientific research plans must be clear and specific, but there should be no jargon, nonsense and unnecessary modifiers. Third, scientific. The formulation of research plan should conform to the requirements of educational research methods and be carried out on the basis of grasping certain theoretical and factual materials. The formulation of the research plan should be feasible, fully considering their own research ability and research conditions.

Research Results

This chapter is about questionnaire collection and testing. It focuses on the design of the questionnaire in terms of the dimensions of the variables and the analysis of the information collected on the data through SPSS 21.0, the reliability testing of the two variables involved in this study and the validity verification of the scales using AMOS. The data were also analyzed and processed. The main purpose was to perform correlation and regression analysis of the two variables through SPSS 21.0 software, to illustrate the relationship between the variables in this study, and to test the hypotheses formulated.

1.1 Demographic Information

Table 1 Gender Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
M	106	51.5	51.5	51.5
F	100	48.5	48.5	100
Total	206	100	100	

Table 1 shows the frequency analysis table for gender. 106 or 51.5% of the students were male. The number of female students was 100, or 48.5%. This indicates that the number of male students was slightly higher among the respondents. The distribution chart is shown in Figure 1.

Table 2 Frequency analysis of grades

College Year	Frequency	Percent	Valid Percent	Cumulative Percent
1	46	22.3	22.3	22.3
2	60	29.1	29.1	51.5
3	57	27.7	27.7	79.1
4	43	20.9	20.9	100
Total	206	100	100	

Table 2 shows the frequency analysis table for the grade levels. 46 people (22.3%) were in freshman year. In sophomore year, there were 60 students (29.1%). There were 57 juniors (27.7%). In the fourth year, there were 43 people, accounting for 20.9%. This means that the largest number of respondents were sophomores.

Table 3 Length of being the director of curriculum Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Science and Engineering	38	18.4	18.4	18.4
Agriculture and Forestry	53	25.7	25.7	44.2
Medicine	56	27.2	27.2	71.4
Humanities	36	17.5	17.5	88.8
Economics and Management	16	7.8	7.8	96.6
Architecture	7	3.4	3.4	100
Total	206	100	100	

Table 3 shows the frequency analysis of majors. 38 people, or 18.4%, were in science and technology. In agriculture and forestry, there were 53 students, accounting for 25.7%. There were 56 people in Medicine, accounting for 27.2%. There were 36 people in the Humanities category, accounting for 17.5%. There were 16 people in the Economics and Management category, accounting for 7.8%. There were 7 people in the category of architecture, accounting for 3.4%. This means that the largest number of respondents were in the medical category and the smallest number were in the architecture category.

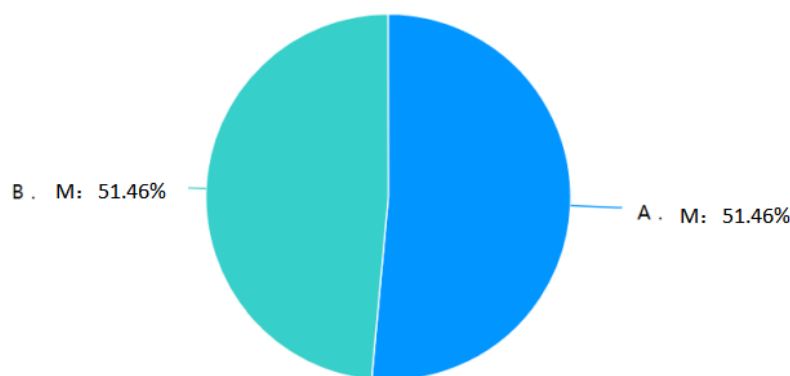


Figure 1 Pie charts for gender

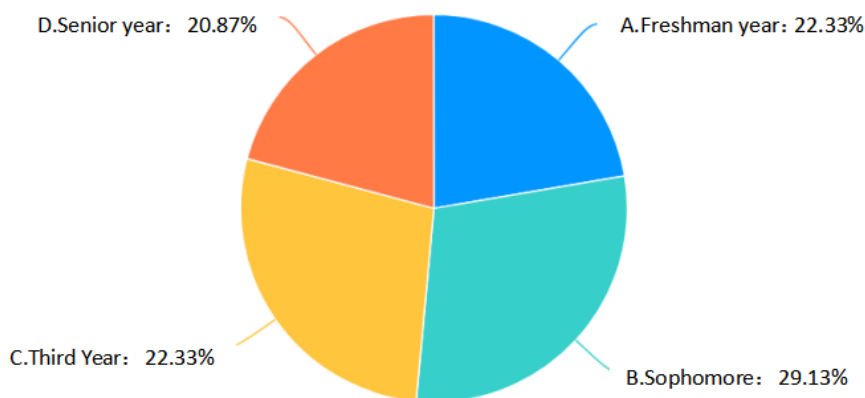


Figure 2 Pie charts for grades

From the analysis of the statistical graphics, we can see that it shows that the largest number of respondents are sophomores. This is also in line with the general data distribution pattern.

The existing demographic analysis provides few results and we need to apply other statistical methods to extract more useful information.

Summary of the Study

The core purpose is to discuss the feasibility of applying Chinese experience to Thailand. The form of flipped classroom is no longer strange. Student-centered teachers adopt task-driven teaching and turn classroom tasks into cooperative projects between students, so that students can master more skills in learning and put theory into practice. For students majoring in preschool education, the ability to practice innovation is particularly important. They should not only master teachers' basic theoretical ability, but also master professional technical ability, and most importantly, they should learn to deal with various problems in their future career, so they need to have independent thinking ability. Due to renovation education can not only make students master scientific and cultural theory knowledge, but also pay more attention to the cultivation of student's practical operation skills and professional ability, the renovation of education is to cultivate professional talents with solid beginning ability and professional skills, the young people only through skills

training, skills talents can be adapt to market demand, realize the transfer business. Therefore, China's experience can be implemented in Thailand.

Discussions

The purpose of renovation education is not to make students invent many new things, but to cultivate students' innovative consciousness, innovative concept and innovative attitude and shape their creative ability through effective education and teaching approaches. Knowledge weight and upgrading to accelerate the growth of modern society, the emergence of new disciplines, promote the renewal of teaching contents and curriculum reform, calling for education, lifelong learning become the inevitable requirement of modern, become a imparter of knowledge, more want to meet the needs of the development of modern education, constantly learning new knowledge and constantly update their knowledge structure, therefore, inheritance is learning; Innovation is learning.

The regression analysis in the previous section shows that entrepreneurship education has a positive impact on entrepreneurial motivation. Of these, personal factors have a smaller impact on entrepreneurial motivation compared to school factors. This is due to the fact that individuals are mainly subjective in their willingness to receive entrepreneurship education and are more influenced by their own abilities and sense of efficacy. However, the shaping of a good environmental climate can be effective in motivating university students to do something. According to the organic integration and causal orientation theories of self-determination theory, the external environment can influence an individual's behaviour and stimulate extrinsic motivation, which can be effectively transformed into intrinsic motivation and lead to increased motivation. Therefore, when students are influenced by the entrepreneurial atmosphere on campus, they will be motivated to start their own business and their own motivation will increase, which will be more effective in promoting students to take action for entrepreneurship.

Recommendations

Entrepreneurship education in colleges and universities has a greater influence on college students' entrepreneurship. Colleges and universities should further deepen and reform entrepreneurship education, which aims to cultivate and improve college students' entrepreneurial knowledge, entrepreneurial skills and entrepreneurial quality, create an atmosphere for college students' entrepreneurship, provide technical support and financial assistance, and help students to successfully start their own businesses.

A perfect organizational structure and institutional guarantee is a prerequisite for the smooth implementation and execution of entrepreneurship education. Chinese universities should continuously improve their organisational structure. According to the data analysis of the questionnaire, a good external environment has a positive impact on college students'

This study finds that the degree of participation of university students in entrepreneurship education has a certain influence on the strength of entrepreneurial motivation. With the continuous improvement and development of the entrepreneurship education system, how can university students transform their professional knowledge into intrinsic motivation for entrepreneurship? How to enhance their sense of efficacy and motivate entrepreneurship? This requires a close integration of entrepreneurship education with professional education, and a seamless connection between entrepreneurship education and inducing

entrepreneurial motivation, so as to induce their entrepreneurial behaviour. The questionnaire found that some students do not participate much in entrepreneurship seminars or forums. Some of the open-ended questions indicated that there were not many entrepreneurship-related lectures in their majors, so they hoped that the university would strengthen the integration of entrepreneurship education with their majors. Based on the students' suggestions and the organic integration of internal and external motivation in self-determination theory, the author believes that universities can strengthen this aspect in the following ways, through theoretical learning, to meet the self-confidence of university entrepreneurship and to improve the cognitive evaluation of internal and external motivation into entrepreneurial motivation.

The results of the study and the results of the questionnaire survey show that many respondents believe that entrepreneurship guidance for college students in colleges and universities mostly stays in theoretical aspects, with relatively few practical courses. As a result, many students have a good grasp of the theory, but are unable to put it into practice. Practice is the only criterion to test the truth. Therefore, according to self-determination theory, Chinese universities should continue to increase and enrich the establishment of practical courses in entrepreneurship education, continue to meet the basic psychological needs of students, enhance the sense of autonomy and competence, provide more practical activities and opportunities for entrepreneurial activities to students, effectively transform the external motivation of entrepreneurship into intrinsic motivation, so that students' hands-on practical ability in entrepreneurship can be continuously enhanced, and continuously promote There is and integration of internal and external motivation, and an increased degree of self-determination.

Educational evaluation is related to the direction of education development. What kind of evaluation baton is there, what kind of school-running orientation is there. In order to fully implement General Secretary Xi Jinping's important statements on education and the guiding principles of the National Education Conference, improve the system and mechanism for fostering moral integrity and fostering talent, reverse the unscientific orientation of education evaluation, improve the capacity and level of education governance, accelerate the modernization of education, build China into an education country, run education that the people are satisfied with, and promote employment. Suggestions for Thai counterparts: It is to adhere to the basic standard of setting up results. Improve school evaluation. We will improve the degree awarding standards and evaluation mechanisms that are compatible with the development of vocational education. Improve the evaluation of institutions of higher learning. Adhere to the ethics of teachers as the first standard. Highlight achievements in education and teaching. Set up the correct employment orientation. Promote the compatibility between people and posts. Implementing reform responsibilities.

Through this study, I have a general understanding of the current relationship between entrepreneurship education, the flipped classroom and entrepreneurial motivation and the current state of research. However, not many Chinese scholars have studied the relationship between the three, and even fewer have done so in the context of China's specific cultural context, leaving much room for research in this area. Therefore, this study suggests that future research could be conducted in the following areas.

Existing foreign research has shown that there are many factors that influence entrepreneurial motivation. The entrepreneurship education and flipped classroom

mentioned in this paper are also among the influencing factors. And many foreign studies have studied culture as one of its influencing factors. Therefore, Chinese scholars should explore the factors influencing entrepreneurial motivation in future research based on China's cultural background, the state of China's economic development, and the context of the "double creation" era. In addition, comparative studies can be conducted with foreign studies.

In the existing studies, there is still no unified definition of the dimensions of flipped classroom, entrepreneurial motivation and entrepreneurship education. Based on different contexts and theories, the dimensions classified are different. Therefore, it is hoped that Chinese scholars can make a reasonable division of the dimensions of flipped classroom, entrepreneurial motivation and entrepreneurship education based on the cultural background of China, combined with theories of Chinese construction and economic and social development.

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The Effects of Error Management Climate on Teaching Innovation Behavior: The Moderating Role of Creative Teaching Self-efficacy - Case Study of Hunan Schools

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Abstract

In the current era of rapid scientific and technological development, traditional content and teaching methods are gradually out of fashion. How to learn knowledge more quickly and completely is particularly important. Students' demands for changes in learning methods are also getting higher and higher. Education must put innovation first in order to continue to make progress. If the school wants to improve the overall ability of teaching innovation, it must rely on the joint efforts of faculty, and must regard every teacher's creative ability as the foundation. Errors inevitably occur when teachers explore innovation in teaching, which is very common and cannot be avoided completely. It has increasingly been the focus that the administrative level of schools and teachers' attitude towards error and innovation. Among them, the overall climate of the school management environment is called the error management climate when in the face of errors generated by teaching innovation, which is the key content of the research field of error management. The direction and intensity of the error management climate have an important impact on the teaching innovation behavior, and its specific mechanism of action also has high research value.

In addition, there are many factors between error management management and teaching innovation behavior that will highlight the relationship between the two. Among them, creative teaching self-efficacy, as an important factor influencing the inner layer of individual teachers, will play a regulatory role in the relationship between error management climate and the line of teaching innovation. Studying the action process among these three can be used as a research topic in this field.

Therefore, this paper mainly discusses the specific mechanism of error management climate and teaching innovation behavior, and studies the moderating effect of self-efficacy in creative teaching, through the network research on the employees of colleges, middle schools and schools in Hunan Province, using SPSS and AMOS for data analysis, and giving some suggestion to various schools on error management climate.

Keywords: error management climate, creative teaching self-efficacy, teaching innovation behavior

Background

Previous studies have shown that there are many factors that affect teachers' teaching innovation behavior, such as leadership behavior, individual characteristics, psychological authorization, campus culture, work characteristics but few scholars study teacher teaching innovation from the perspective of error. Innovation is a process of exploring the unknown, which means breaking through the original production technologies, services and processes, full of various uncertain risks. It is difficult for individuals to avoid errors because of limited knowledge and ability in the face of this complex and dynamic external environment and the limited rationality

of individuals. In the daily teaching process, mistakes may occur in the innovation process due to their lack of experience and professional knowledge, and low level of environment sensitivity, which will bring loss to the organization. At the same time, it will also cause certain pressure of work and psychology on the teachers themselves. The way schools deal with errors will greatly influence teachers' teaching innovation behavior. So how to solve this worry of teachers, so that teachers dare to trial and error, dare to innovate? Based on social cognitive theory, this paper argues that individual actions are the result of the three-dimensional interaction of the environment, individual characteristics, and behavior. As the perception of individual teachers on the practice of error management within the school, error management climate is bound to have an impact on individuals within the school. If the school leaders pay attention to the creation of an error management climate in daily management, they will convey the idea of encouraging teaching innovation to the frontline teachers. Then the teacher's teaching innovation ability will be greatly improved, which will stimulate more creative behavior.

The self-efficacy of creative teaching is based on the concepts and theories of teaching effectiveness and creative self-efficacy. It is the teacher's perception and belief in their own creative teaching ability and its impact on students' learning level. It will be influenced by the teacher's analysis of the teaching task and his or her own teaching ability, the evaluation of others, and their own experience and physiological state. And they also have an impact on the teacher's creative teaching behavior. So it is an important individual predictor.

Teachers' teaching behavior is one of the main environmental factors that promote the development of students' creativity. Under the requirements of the ever-changing development environment, it is particularly important to study the teaching innovation behavior. In addition to conducting research on classroom teaching strategies and teaching ability factors, it is also a noteworthy orientation to study teaching innovation behavior from the perspective of self-efficacy.

In view of this, this study will focus on the internal mechanism between error management climate and teaching innovation behavior, and further propose the best path for schools to encourage teachers' teaching innovation, hoping to contribute to the improvement of the teaching innovation level of frontline teachers.

Objective

At present, many scholars have done some research on the anterior and consequent variables of innovative behavior, and for teaching innovation behavior in a similar range, its anterior variable research usually focuses on the individual characteristics of teachers, individual psychological factors, work factors, school environmental factors and other aspects. Among them, the individual characteristics factor mainly refers to the personality traits or personal cognition of individual employees. Individual rational factors mainly include individual motivations, positive or negative emotional factors, etc. The work factors generally include teaching content, teaching characteristics and other aspects. School environmental factors mainly include leadership style, school climate, school culture and so on. The research on the impact of sending some factors on innovative behavior has certain research value. For example, Ding Lin has analyzed the mechanism of leadership behavior on innovative behavior, and Yin Runfeng has studied the influence of performance orientation on individual innovative behavior. However, scholars' research on the antecedent variables of teaching innovation behavior ignores the

influence of factors such as errors. The literature on the relationship between school error management climate and teachers' teaching innovation behavior is sparse. In this paper, we use the factor of error management climate, which is less concerned in the early stage, and analyze it as an independent variable for theoretical and practical analysis, and expand and enrich the research content in the field of error management climate.

In summary, on the basis of the relevant theoretical collection and summary, this paper finds the research content of the relationship between the error management climate and the teaching innovation behavior with more research value in the field of error management, and introduces the individual psychological factor of creative teaching self-efficacy, explores its moderating role between the error management climate and the teaching innovation behavior, and enriches the research on the influence mechanism of teaching innovation behavior.

Prospective yield

The main innovation of this study is not limited to the unilateral study of the innovative behavior of individual teachers or schools, but it is necessary to combine the two aspects-questionnaire survey and analysis, through which this paper jointly explores the influence mechanism of teachers' innovation behavior, comprehensively study the influencing mechanism of school organizational error management climate, and the creative teaching self-efficacy of individual teachers and teaching innovation behavior.

In this study, individual psychological factors of self-efficacy in creative teaching were used as regulatory variables, which reveals the intrinsic process of influence between error management climate and teaching innovative behavior, enriching the relevant theoretical research.

The position of frontline teachers in teaching innovation is very important. There is a huge gap between teachers and traditional workers. This study takes the faculty of various schools in Hunan Province as the research object, and has a certain inspiration for the innovation management of schools in the future.

Concept and structure

1. Error management climate and teaching innovation behavior

No one can guarantee that they will never make a mistake, and it is better to correct it in time. No one organization or individual can completely avoid error because of the complex and ever-changing environment and human bounded rationality (Simon, 1957). Domestic scholars, Wang Chongming and Hong Ziqiang (2000) define the organizational error management climate as: organizational practices, procedures and attitudes related to errors, so in short, the error management climate refers to the way and method of the organization to deal with errors. When analyzing the specific measurement of the error management climate, Chinese scholar Chen Wenpei (2013) selected five dimensions including error mastery, error prediction, error risk, error pressure and error management mechanism to measure the error management climate of China's organization. Based on the error orientation scale compiled by Rybowskiak (1999), and combined with the suggestions of Wang Chongming and Chen Wenpei, this study finally adopts the error management climate scale with four dimensions: error mastery, error prediction, error pressure and error management.

The error processing dimension refers to the fact that members of an organization can actively share, communicate and think about the causes of errors with other members when errors occur in the actual work process, learn from errors and summarize lessons, and achieve the effect of reducing the negative impact of errors. The error prediction dimension is used to describe that members of an organization are able to predict the occurrence of errors in the actual course of work, and are not afraid of them. The error pressure dimension mainly refers to the fact that members are afraid of errors in the process of work, which hinders the creation of a good error management climate in the enterprise. The error management dimension mainly refers to some specific specifications and measures for the organization to deal with errors.

As the individuals of schools as an organization, it is inevitable in the process of teaching practice to make mistakes, so it becomes crucial for them to think about how to create a good error management climate to improve the quality of teaching, in order to promote teaching innovation. Teaching innovation behavior refers to the teaching behavior that teachers are good at discovering and accumulating the latest educational and scientific research results and have unique insights into teaching, and apply these to the teaching behaviors shown in the teaching process. The results show that a positive error management climate can promote the generation of teaching innovation behavior of teachers, and vice versa.

2. Regulatory effects of creative teaching self-efficacy

Studies have shown that an individual's creative self-efficacy has a positive predictive effect on the performance of creative behavior. The difference in teaching effectiveness is also an important reason for the differentiation of teachers in teaching behavior and teaching effect. It can be inferred from this that the teacher's creative teaching self-efficacy affects the teacher's teaching innovation behavior. A study by Lin Bifang and Qiu Haozheng (2004) on primary and secondary school teachers in Taiwan confirms this inference. They found that there was a significant positive correlation between creative teaching self-efficacy and teaching innovation behavior, that is, the higher the teacher's creative teaching self-efficacy, the richer their teaching innovation behavior. Specifically, it shows greater flexibility in the arrangement of classroom teaching time, the cognitive level of classroom questions, the object of questioning, and the method of feedback to students, the ability to conduct effective group teaching, adopt humanistic and autonomous strategies, which can better deal with conflicts, stronger emotional management skills, less prone to anxiety. Therefore, teachers can improve the actual teaching innovation behavior by improving the self-efficacy of creative teaching.

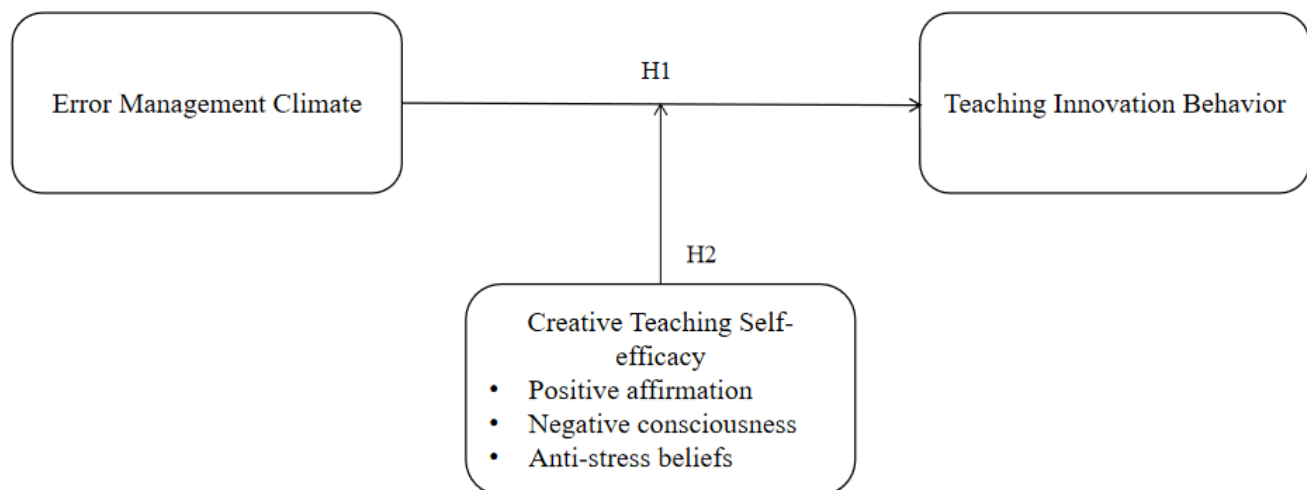
Creative behavior requires some intrinsic, continuous force to motivate individuals to persist in creative work. Creative teaching self-efficacy can provide such motivation when faced with teaching challenges, and a strong creative belief will lead teachers to engage in teaching innovation behavior and increase the degree of persistence. Teachers with high self-efficacy in creative teaching think that they can be competent for creative teaching, focus their attention and efforts on work requirements, and can be hindered by obstacles to stimulate greater passion for work, while teachers with low sense of effectiveness in teaching innovation behavior will think too much about the lack of personal ability and experience in teaching, and see the potential difficulties as more serious than the actual, resulting in excessive psychological pressure, paying more attention to possible failures or adverse

consequences, rather than finding ways to achieve goals by effectively using their abilities. This in turn influenced the implementation of its innovative teaching. It can be seen that as a subjective judgment and feeling of teachers on their own abilities, creative teaching self-efficacy is an intrinsic factor for teachers to stimulate their own creative teaching potential, which directly affects the enthusiasm and effort of teachers to engage in innovative teaching.

Research models and hypothesis settings

Research models

Based on the theoretical background and prior research in Chapter 2, the study takes the error management climate as the independent variable and the teaching innovation behavior as the dependent variable, and tries to explore the relationship between them. In addition, in order to test the adjustment effect between them, the self-efficacy of creative teaching is used as the regulating variable, using Van Dyck, Frese, Baer et al. (2005) and Lin Jiasu (1997) proposed the concept and scale of error management atmosphere and teaching to dismantle those behaviors and applying Qiu Haozheng and Lin Bifang (2008) proposed the concept and scale of self-efficacy in creative teaching.



Based on the prior study of the variables, the research model shown in [Figure 1] is constructed.

Figure 1 Research model

Hypothesis settings

Error management climate and faculty innovation behavior

Any organization is made up of independent individuals, and any work in the organization is done by people. The individual's behavior is influenced by many factors such as his level of knowledge, relevant experience, perception of the environment, individual characteristics, and understanding of things in a particular situation. It is inevitable for every individual to confront various situations and different mistakes in his or her work. Therefore, mistakes are also unavoidable by any organization. There is no doubt that mistakes will definitely bring negative effects to the organization, but mistakes also have a positive effect, and errors not only have an early warning and regulatory effect, but also can trigger innovation. Because of this,

many international scholars have studied errors and their related issues of error management.

In his 1999 study, Edmondson found that employees' attitude towards errors has a significant impact on their ability to innovate, and if employees have a positive attitude towards errors, the corresponding innovation can be increased. In 2006, when Arenas and Tabemero explored the relationship between error atmosphere management and self-efficacy, they found that error management has a significant impact on self-efficacy, which in turn affects the individual behavior of employees. When studying the relationship between error management and employee innovation behavior in 2011, Chinese scholar, Yin Runfeng found that there was a significant positive correlation between performance appraisal and innovative behavior, and there was a mediation effect of error management and then in a later study, the effect of error management between the orientation of leadership style and innovative behavior was explored. It can be seen that most international scholars believe that error management climate is related to individual behavior, which will have an impact on individual innovation behavior. From the previous expositions in the article, we know that it can be guessed that the better the error management climate, the less the teaching innovation behavior, and vice versa, which can help avoid possible mistakes, learn from them, and promote the innovation ability. Therefore, it can be guessed that the error management climate has a positive impact on the teaching innovation behavior. Based on this, this paper attempts to explore the relationship between error management climate and teaching innovation behavior, and proposes the following hypothesis:

H1 : The error management climate has a positive impact on the teaching innovation behavior.

The modulating effect of creative teaching self-efficacy

Tschannen et al. (1998) argue that teaching efficacy is the result of the interaction of two factors. The first is the teacher's evaluation of the factors affecting the difficulty of completing special teaching tasks (analysis of teaching tasks), and the second is the teacher's self-evaluation of the individual's teaching ability to engage in special tasks (analysis of his own teaching ability) [9]. Teachers' judgments about their own effectiveness affect the goals they set for themselves, the efforts they make to achieve them, and their persistence in the face of difficulties. These judgments lead directly to behavioral outcomes, which in turn form the basis for future teaching effectiveness.

Bandura argues that success-or-failure experiences, alternative experiences, evaluations and persuasions from others, and a synthesis of information from emotional and physiological states have an impact on the formation and improvement of self-efficacy. However, it should be noted that how and to what extent this information affects the formation and change of self-efficacy will vary from person to person [2]. The formation of self-efficacy is essentially the process of performance information, through which self-efficacy information is compared, integrated and self-belief about efficacy is formed. It is through the selection, comparison and integration of various successes and failures that teachers form a sense of self-efficacy.

Since the self-efficacy of teaching innovation behavior is the application of the concept of self-efficacy in a specific field, it should also be consistent with the influencing factors of teaching effectiveness and self-efficacy. In summary, the self-efficacy of creative teaching is affected by the teacher's analysis of teaching tasks and their own teaching ability, the evaluation of others, and their own experience and

physiological status. But this is only a study of the reasons for the creative teaching self-efficacy of and its relationship to innovation behavior. The impact of creative teaching self-efficacy on the relationship between error management climate and teaching innovation behavior needs further research. Therefore, this article talks about creative teaching self-efficacy divided into three lower dimensions, positive affirmation, negative consciousness, and anti-stress beliefs. And separately put forward the hypothesis:

H2 : Creative teaching self-efficacy has a regulatory effect between the error management climate and the teaching innovation behavior.

H2a: Positive affirmation has a moderating effect between the error management climate and the teaching innovation behavior.

H2b : Negative consciousness has a regulatory effect between the error management climate and teaching innovation behavior.

H2c : anti-stress beliefs have a regulatory effect between the error management climate and the teaching innovation behavior.

Research method

1. Research object

In this study, a questionnaire survey was conducted with faculty of schools in Hunan, China. The questionnaire was distributed mainly through social media to 457 respondents in Places such as Hunan, China. Respondents are all over 20 years old, working in different levels of positions in various types of schools. All respondents had experiences with a broad and special error management climate. The respondents of this study are widely distributed, so the subjects of the study have a certain representative.

2. Survey method and questionnaire design

At the time of the distribution of the questionnaire, the study promised respondents that the information collected would be used only for academic research. Personal information under investigation would be kept confidential to avoid the disclosure of the person under investigation. In addition, surveys do not collect their private personal information. Since this study used English measurement tools from international academic journals, they were translated and collated by inviting a professor majoring in English to translate the English measurement tool into Chinese. At the same time, comparison and adjustment were made for the original measurement questions. The new questionnaire is <Table 1> shown below.

Variable		Amount	Number	Total	Designer
Error management climate		17	A1-A17	17	Van DycK, Frese, Baer.et al. (2005)
Teaching innovation behavior		7	B1-B7	7	Lin Jiasu(1997)
Creative teaching self-efficacy	Positive affirmation	7	C1-C7	15	Qiu Haozheng, Lin Bifang (2008)
	Negative consciousness	5	C8-C12		
	anti-stress beliefs	3	C13-C15		

3. Data collection and sample characteristics

A questionnaire was conducted from 2 September 2021 to 12 September 2021. A total of 500 questionnaires were distributed and 483 (96.6%) questionnaires were recovered, of which 457 (91.4%) were selected as valid questionnaires. The demographic characteristics of this study sample are shown in <Table 2>.

Table 2 The demographic characteristics of this study sample

	Variable	Amount	Percentage(%)
Gender	male	260	56.9
	female	197	43.1
Age	20-29	50	10.9
	30-39	107	23.4
	40-49	207	45.3
	≥50	93	20.4
Degree	Bachelor	119	26.0
	Master	238	52.1
	Doctor	100	21.9
Professional experience	1-5 years	98	21.4
	6-10 years	113	24.7
	11-15 years	164	35.9
	Over 15 years	82	17.9
Type of school	Private	146	31.9
	Public	239	52.3
	Administration	72	15.8
Rank	Primary	95	20.8
	Junior	261	57.1
	Senior	101	22.1

Research result

Feasibility of variables analysis

A factor analysis and reliability analysis are performed to assess the suitability of the measurement tool. The basic idea of factor analysis is to look for common factors between variables to achieve the purpose of dimension reduction (Wang Songtao, 2006). The concept of confidence analysis comes from the study of psychological tests on the reliability of tests such as the ability, personality, and skills of testers (Zhang Hu & Tian Maofeng, 2007). For the variables, the KMO values are both above 0.9, and the variance descriptive force accumulation values are both higher than 60%. The principal component extraction analysis is carried out, and the eigenvalues extracted for each variable are above 1. The feasibility of the measuring tool was confirmed. According to the reliability analysis results of the variables, Cronbach's alpha value reached more than 0.7, indicating that the measurement tool has high reliability.

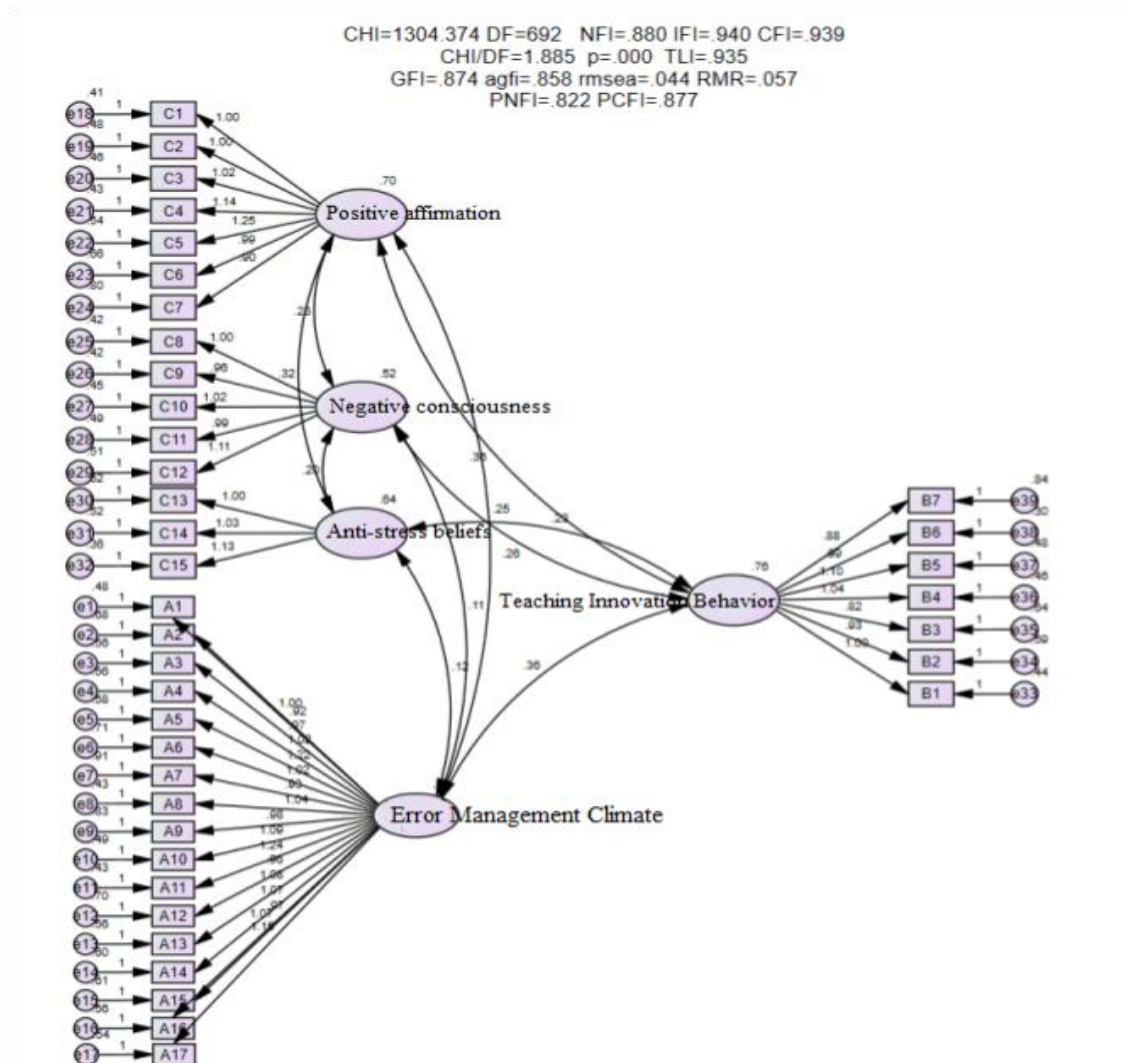


Figure 2 Validation factor analysis

The standardized factor carrying capacity of most variables is above 0.5, and all of them are statistically significant. The CR values are all above 0.8, and the AVE values are all above 0.5. In order to verify the feasibility of the measurement tool and improve the fit index of the study model, this study used the AOMES23.0 program to analyze the value of the model fit index CMIN/DF; RMR, RMSEA, GFI, AGFI, NFI, IFI, CFI, NFI, PGFI and PNFI, and analyzed whether the variables and models matched. This further excludes variables that are judged to be non-conforming to the standard values. The following <3-3>analysis results are given according to the judgment criteria.

Table 3 Model goodness of fit

Suitable type		standard	result
Absolute index	CMIN/DF	<3 fine	1.885
	RMR	<0.05 fine	.057
	RMSEA	<0.08 fine	.044
	GFI	>0.8 norm	.874
	AGFI	>0.9 fine >0.8 norm	.858
Incremental fit index	NFI	>0.8 norm	.880
	IFI	>0.9 fine	.940
	CFI	>0.9 fine	.939
Simple fit index	PGFI	>0.5 fine	.775
	PNFI	>0.5 fine	.822

Judging from <3-1> the results shown, all variables as the fit values of the study model meet the criteria for judging. Among them, CMIN/DF values, RMR values, RMSEA values, IFI values, NFI and CFI values are all judged to be fine. Both GFI and AGFI values, while not meeting good judgment criteria, are still acceptable. The data are acceptable. After a validation factor analysis, it was confirmed that the analysis using the model of this study was reliable.

Feasibility judgement analysis

The model is analyzed to verify the feasibility of the model again. In this study, the feasibility of model identification is analyzed by USOS23.0 program and SEM technology to verify the relationship between variables. This process includes correlation analysis between variables. Correlation Analysis uses one variable to predict another. Correlation analysis focuses on discovering various correlation characteristics between random variables (Hair et al., 1998). Calculate the mean and standard deviation and use pearson correlation coefficient (r) to determine if there is a correlation. The correlation coefficient (r) has a value of -1 to +1. If the r value is less than ± 0.2 , there is no correlation. It is believed that the correlation is $\text{low} \pm 0.2 \pm 0.4$, and the correlation coefficient is 0.4 ± 0.7 in \pm . It is generally believed that when the correlation coefficient (r) is greater than 0.8, there is a possibility of multiple collinearity (Liu Dongxi, Shen Yousheng, 2014).

Table 3 Feasibility judgement analysis

variable	1	2	3	4	5	Mean
1	1					3.5391
2	.519**	1				3.4004
3	.359**	.446**	1			3.3229
4	.190**	.378**	.335**	1		3.3519
5	.185**	.289**	.422**	.292**	1	3.4486
Mean	3.5391	3.4004	3.3229	3.3519	3.4486	

Note) 1.Error management climate, 2.Teaching innovative behavior, 3.Positive affirmation, 4.Negative consciousness, 5.anti-stress beliefs
** P<0.01.

Table 3 It shows that there is a positive (+) correlation between the error management climate and the teaching innovation behavior ($r=0.519$, $P<0.01$). There was a positive (+) correlation between the error management climate, teaching innovation behavior and the positive affirmation, and the correlation coefficients were ($r=-0.359$, $P<0.01$; $r=-0.446$, $P<0.01$). There is also a positive (+) correlation between error management atmosphere, teaching innovation behavior, positive affirmation and negative consciousness ($r=-0.190$, $P<0.01$; $r=0.378$, $P<0.01$; $r=-0.335$, $P<0.01$). Finally, there is also a positive (+) correlation between error management climate, teaching innovation behavior, positive affirmation, negative consciousness and anti-stress beliefs ($r=-0.185$, $P<0.01$; $r=0.289$, $P<0.01$; $r=-0.422$, $P<0.01$; $r=-0.292$, $P<0.01$).

According to <Table 3-2> , there is a significant correlation between the vast majority of the variables in the study, further regression analysis is considered to be possible.

Statistical hypothesis testing

In this study, regression analysis and SPSS23.0 procedure were used to analyze the effect of error management climate variables proposed in all hypotheses on the teaching innovation behavior and the moderating effect of self-efficacy.

1. Analysis on the error management climate and teaching innovation behavior

In order to verify the direct effect of hypothesized H1, this study sets the error management climate as an independent variable and the teaching innovation behavior as the dependent variable. Direct effects were analyzed using linear regression analysis. The following results are summarized as follows: The results of the analysis are based on the significant level of the analysis results ($p<0.05$). The results of the analysis are shown as <Table-4> below.

Table 4 Analysis of the influence of error management climate on teaching innovation behavior

Dependent variable	Independent variable	S.E	β	t	p	Tolerance	VIF
Teaching innovation behavior	Constant	.238	1.347***	5.664	.000		
	Gender	.061	.077	1.254	.211	.993	1.007
	Age	.059	-.012	-.210	.834	.328	3.046
	Degree	.047	.252***	5.389	.000	.876	1.142
	Professional experience	.051	-.303	-5.3910	.000	.335	2.985
	Type of school	.066	-.029***	-.442	.659	.465	2.148
	Rank	.053	.396***	7.522	.000	.770	1.298
	Error management climate	.039	.422***	10.716	.000	.913	1.095

R2=.476, Adjusted R2=.467, Δ R2=.476, ANOVA:F=50.878, p=.000, Durbin-Watson=2.031
Note):1. *p,0.05, **p<0.01, ***p<0.001.

Table 4 shows that the significance of linear regression analyses built to verify the direct effect of independent variables on dependent variables reaches an acceptable level. The error management climate has a significant positive (+) influence on the teaching innovation behavior, and the coefficients are $\beta=0.422$, and $P<0.001$. Model summaries are within the required range. Therefore, H 1 holds.

2. Analysis of regulatory effect on creative teaching self-efficacy

In this study, the adjustment effect was verified by SPSS23.0, and was analyzed by adding variables in four stages by using the stepwise regression analysis method. In order to solve the multi-linear problem that arises during the analysis, all variables are averaged decentralized (that is, variables subtract their own averages) (Wang Lei, Zheng Xiuzhen, 2018). The first step is to add demographic variables as control variables, the second step is to invest in the independent variable error management climate, and the third step is to invest in three lower-dimensional variables that adjust the creative teaching self-efficacy variable, positive affirmation, negative self-consciousness, and anti-stress beliefs. The fourth step is to invest in the interaction between the dimensional variable and the regulating variable under the independent variable. The regulatory effect is verified by adding an analysis of the dependent variable. In the analysis result, the value of P and R of the interaction term are mainly observed; if the DW value of the regression model is close to 2 and the tolerance is greater than 0.1, the regression model is determined to be appropriate, and the specific data analysis is shown in Table 5-7

Table 5 The regulatory function on creative teaching self-efficacy1

Dependent variable		Teaching innovation behavior			
		1Stage β	2Stage β	3Stage β	4Stage β
Control variable	Gender	.044	.043	.052	.058
	Age	.014	-.013	-.009	-.008
	Degree	.243***	.197***	.176***	.154***
	Professional experience	-.453***	-.349***	-.320***	-.282***
	Type of school	-.010	-.020	-.015	-.011
	Rank	.356***	.293***	.267***	.238***
Independent variable	Error management		.384***	.324***	.284***
Regulating variable	Positive affirmation			.202***	.189***
Interaction term	error management climate*positive affirmation				.260***
R2		.342	.476	.510	.517
Δ R2		.342	.134	.033	.062
Adjusted R2		.333	.468	.501	.562
F		38.908***	58.275***	58.174***	66.137***
Durbin-Watson		2.048			

Note) *p,0.05, **p<0.01, ***p<0.001.

Table 5Step 1 is an analysis of the influence of control variables on the teaching innovation behavior, and step 2 is a model that introduces an independent variable error management climate based on step 1. The result shows that the error management climate variable ($\beta=0.384$, $P<0.001$) has a significant positive (+) effect on the teaching innovation behavior. Step 3 is to introduce a downstream positive affirmation model that regulates the creative teaching self-efficacy variable on the basis of step 2. The result shows that positive affirmation has a significant positive (+) effect on teaching innovation behavior ($\beta=-0.202$, $P<0.001$). Finally, step 4 is a model built on top of step 3 by introducing an error management climate and positive affirmation interaction terms. The result shows that the interaction term between error management climate and positive affirmation had a positive (+) effect on the teaching innovation behavior ($\beta=-0.260$; $P<0.001$).

Table 6 Regulatory effect on creative teaching self-efficacy 2

dependent variable		teaching innovation behavior			
		1Stage β	2Stage β	3Stage β	4Stage β
control variable	Gender	.044	.043	.028	.025
	Age	.014	-.013	-.008	-.017
	Degree	.243***	.197***	.161***	.156***
	Professional experience	-.453***	-.349***	-.341***	-.312***
	Type of school	-.010	-.020	-.002	-.012
	Rank	.356***	.293***	.277***	.260***

Table 6 Regulatory effect on creative teaching self-efficacy 2 (Cont.)

dependent variable		teaching innovation behavior			
		1Stage β	2Stage β	3Stage β	4Stage β
independent variable	Error management climate		.384***	.350***	.317***
regulating variable	Negative consciousness			.226***	.214***
interaction term	error management climate *negative consciousness				.166***
R2		.342	.476	.523	.548
Δ R2		.342	.134	.047	.025
Adjusted R2		.333	.468	.514	.539
F		38.908***	58.275***	61.377***	60.175***
Durbin-Watson		2.045			

注) *p,0.05, **p<0.01, ***p<0.001.

Table 6 Step 1 is an analysis of the influence of control variables on the teaching innovation behavior, and step 2 is a model that introduces an independent variable error management climate based on step 1. The result shows that the error management climate variable ($\beta=0.384$, $P<0.001$) has a significant positive (+) effect on the teaching innovation behavior. Step 3 is to introduce a downstream negative self-conscious model of self-efficacy that regulates variables creatively on the basis of step 2. The result shows that negative self-awareness had a significant positive (+) effect on teaching innovation behavior ($\beta=-0.226$, $P<0.001$). Finally, step 4 is a model built on the basis of step 3 by introducing an error management climate and a negative conscious interaction term. The results showed that the interaction term between the error management atmosphere and negative self-consciousness had a positive (+) effect on the teaching innovation behavior ($\beta=-0.166$; $P<0.001$).

Table 7 Regulatory function on creative teaching self-efficacy 3

Dependent variable		Teaching innovation behavior			
		1Stage β	2Stage β	3Stage β	4Stage β
Control variable	Gender	.044	.043	.052	.057
	Age	.014	-.013	-.012	.011
	Degree	.243***	.197***	.174***	.179***
	Professional experience	-.453***	-.349***	-.344***	-.329***
	Type of school	-.010	-.020	-.015	-.001
	Rank	.356***	.293***	.290***	.268***
Independent variable	Error management climate		.384***	.362***	.300***
Regulating variable	Anti-stress beliefs			.146***	.129***

Table 7 Regulatory function on creative teaching self-efficacy 3 (Cont.)

Dependent variable		Teaching innovation behavior			
		1Stage β	2Stage β	3Stage β	4Stage β
Interaction term	Error management climate*anti-stress beliefs				.228***
R2		.342	.476	.496	.541
Δ R2		.342	.134	.020	.045
Adjusted R2		.333	.468	.487	.532
F		38.908***	58.275***	55.080***	58.594***
Durbin-Watson		2.055			

注) *p,0.05, **p<0.01, ***p<0.001.

Table 7 Step 1 is an analysis of the influence of control variables on the teaching innovation behavior, and step 2 is a model that introduces an independent variable error management climate based on step 1. The result shows that the error management climate variable ($\beta=0.384$, $P<0.001$) has a significant positive (+) effect on the teaching innovation behavior. Step 3 is to introduce a model of the underlying anti-stress beliefs that regulates variable creative teaching self-efficacy based on step 2. The result shows that anti-stress beliefs had a significant positive (+) effect on teaching innovation behavior ($\beta=-0.146$, $P<0.001$). Finally, step 4 is a model built on the basis of step 3 to introduce the interaction between the error management climate and the anti-stress beliefs. The result shows that the interaction term between error management climate and anti-stress beliefs had a positive (+) effect on the teaching innovation behavior ($\beta=-0.228$; $P<0.001$).

Summary

Based on the existing research results, this paper proposes a hypothesis model, collects the data used for analysis by means of questionnaire survey, and uses SPSS 23.0 and AMOS 23.0 statistical analysis software to conduct empirical analysis of the recovered questionnaire data, and the empirical test results are summarized as shown in <table 6>.

The error management climate has a positive impact on the teaching innovation behavior. ($\beta=0.384$, $p<0.001$). According to the self-determination theory, external and internal factors of the individual will affect the behavior. The motivation source of the error management climate will affect the behavior of the individual, and the influence of the individual's internal needs on the behavior will be greater than the influence of the external environment.

(2) The moderating function of creative teaching self-efficacy. The moderating effect of creative teaching self-efficacy between error management climate and the teaching innovation behavior was verified through regression analysis. The more confident the teacher is, the more effective the error management climate will be on the teacher's teaching innovation behavior, and in the weaker creative teaching self-efficacy, the function of the error management climate on the teaching innovation behavior will be correspondingly weakened. Teachers with a sense of creative self-efficacy in teaching are convinced that they can solve things within the scope of their teaching tasks, that they can analyze long-term problems and be able to find relevant solutions to complete the goals required by the teaching task.

In the actual teaching process, the efficiency of teaching and the performance of students are continuously improved.

Advice

With the active implementation of quality education, the error management system is becoming more and more mature, the teaching innovation behavior of teachers has been greatly promoted. However, as to the error management climate variable, teachers tend to communicate and learn from colleagues after the error happening. That means, their awareness of dealing with the occurrence of mistakes is still relatively weak, so it is urgent to cultivate and strengthen. As to teaching innovation behavior of teachers, teachers' enthusiasm for teaching is very high, but the divergent thinking of teaching content is not open enough, and the ability of teaching innovation is insufficient.

Therefore, schools should try to provide a relaxed error management environment for teachers in the management process. And teachers should also dare to abandon the traditional thinking mode in specific teaching activities. When there is a mistake, they should bravely face it, actively analyze the causes of its occurrence, communicate with colleagues, find out the inherent laws behind the error, solve the teaching error, and master the method of error handling, so as to summarize the teaching experience and promote the improvement of the overall teaching innovation ability of themselves and the school.

Analysis of differences in teachers' innovative teaching behavior in different demographic variables

(1) Analysis of differences in the nature of teachers' innovative teaching behavior in schools

The interest, divergence and openness of teachers' teaching are significantly different in the nature of different schools, and the teaching management of private schools may be more relaxed, less strict and standardized than that of public schools. Generally speaking, "Too much of any good thing can turn sour", means that if the management is too strict, teacher's open thinking will be restricted, divergent thinking bound, and the interest in teaching reduced, so the management also needs to be moderate. On the other hand, some private schools can give teachers more space to teach, and do not limit the teaching too much, ensuring the development of teachers' individual teaching methods.

Analysis of teaching innovation behaviors differences in position and academic qualifications

Data analysis shows that there are significant differences in the level of service and academic qualifications in the divergence and openness of teachers' teaching, and the teachers with higher education and position would perform better in divergence and openness. The main reason may be that teachers with higher education and position have much more knowledge and experience. And they will encounter complex teaching events in the daily teaching work, which is impossible to cope with with little knowledge and teaching experience. Therefore, teachers with high academic qualifications and high position greatly reduce the probability of errors-happening and the efficiency of errors-handling, and also improve the self-confidence of teaching innovation. They become the most central members of school education to ensure that the school's teaching activities are carried out in an orderly manner.

Restriction

However, this study takes the teaching innovation behavior of teachers as the research perspective, which is in line with the rapid development situation of various industries at this stage. At the same time, two variables are introduced: error management climate and the sense of creative self-efficacy. And after hypothesis testing, the expected research goals were basically completed. However, there are still some research limitations in the research process, which need to be further improved in the future research. The specific circumstances are as follows:

First of all, this paper mainly defines the error management climate from the micro level, which is, describes the degree of perception of the school error management climate by teachers, so as to explore the influence effect between it and the teachers' teaching innovation behavior. The perception of the individual teacher is only a perception of behavior, and does not necessarily represent all the behaviors of the organizational level that is wrongly managing the climate. In the future, the level of the organization and the individual can be taken into account in the study of the impact of error management climate on teachers' teaching innovation behavior, and the research can be carried out across levels to further find the essence of the problem.

Secondly, this study selects personal traits and intrinsic motivation as the entry point of the study due to the limitation of the scale of the study, and does not take into account more influencing factors in the process of exploring the influence of error management atmosphere on teaching innovation behavior. In future research, we can try to add mediating variables, or further expand the regulating variables, explore whether there are other mediation and regulating variables in the process of influencing the impact of error management climate on teaching innovation behavior, and further investigate the combined effect of mediation variables and new regulating variables, in order to further improve the existing research model.

Third, this study is a cross-sectional study of data, with short data acquisition cycle. It is usually a gradual evolution and advancement process that the impact of error management climate on teaching innovation behavior, which takes a certain amount of time to fully display. In the future, the error management climate and the internal mechanism of teachers' teaching innovation behavior can be tested through time series data to ensure the rationality of behavior.

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The Impact of Learning Motivation on Learning Effectiveness: A Case Study from the Vocational Training Center for Veteran

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Abstract

Since the 1980s, scholars have gradually begun to pay attention to the investment of students' time and energy in the learning process and applied relevant theoretical researches into practice at the beginning of this century. In the current practice of American higher education quality evaluation, we not only care about the time and energy devotion of veterans in learning, but also pay more attention to the interaction among veterans and teachers and peers, and how schools use resources to effectively increase students' learning engagement. At present, there is relatively little practice in this field in China. In this context, the quality of higher education has also become a common concern of the public and the government. The experience and engagement of veterans in the process of studying as well as the growth and outcome obtained through receiving higher education have become the focus of academic research.

In current research about students' learning engagement and learning outcome, most articles take the environment of vocational training center and the learning experience of veterans before entering school as independent variables. On the basis of previous studies, taking the I-P-O theory as the framework, this paper establishes a theoretical model among learning motivation, learning engagement and learning outcome, and obtains the relationship between the three dimensions through the analysis of collected data so as to explore the path to improve students' learning engagement and outcome and improve the quality of higher education. This study takes veterans' learning motivation as the independent variable and their learning outcome as the dependent variable. Using the research methods of literature research and empirical study, this paper deeply discusses the impact of learning motivation on learning outcome, and whether veterans' learning motivation will affect learning outcome through learning engagement. This study mainly takes the learning motivation of veterans as the starting point and pays more attention to the impact of veterans' psychological characteristics on the results in order to dig out the factors affecting veterans' learning outcome from a deeper level.

After discussing the results of data analysis, it is found that veterans' learning motivation has a directly positive impact on learning outcome, and veterans' learning motivation also has an indirect impact on learning outcome by affecting learning engagement. Veterans' knowledge need and social orientation, namely the internal motivation, have an obvious impact on veterans' learning engagement and learning outcome. Fame pursuit and group pressure, namely external motivation, have no obvious impact on veterans' learning engagement and learning outcome.

In view of the above research results, it is believed that in order to increase the engagement of veterans' learning, improve the learning outcome and the education quality of vocational training centers, we should stimulate veterans' learning interest, pay attention to veterans' learning experience and constantly change the outlook of higher education quality under the cooperation of students, teachers, vocational training centers and the whole society.

Keywords: learning motivation, learning effect, veteran, quality of higher education

Background and Statement of the problem

As the foundation of a country and a nation, education shoulders the important mission of talent training, scientific research, social service and cultural inheritance. It is of great significance to the progress of veterans and the development of the country. The quality of education, as the output of education outcomes, has always been the major concern of the government and the society.

The education level of veterans is the basis of vocational training. To a great extent, different education levels affect their outlooks on world, life and value. Besides, different education levels will also influence their job prospects. Based on the proportional relation between education level and demand for vocational training, we can correctly understand and treat knowledge and technology as as to find a quick way out of the educational dilemma as soon as possible.

Since the 1980s, scholars have gradually begun to pay attention to the time and energy devoted by veterans in the learning process, and applied relevant theoretical research into practice in the beginning of this century, among which the “US National Survey of learning engagement” is the most influential. This survey takes the learning engagement of veterans as the evaluation criterion of vocational training quality. It not only cares about the time and energy devoted by veterans in learning, but also pays more attention to the interaction between veterans and peers in society. In addition, this survey also emphasizes the way schools effectively utilize resources to increase the learning engagement of veterans. Encouraged by this survey, China has gradually begun to establish the evaluation concept of vocational training quality centered on veterans. At present, China’s research on veterans’ learning engagement mainly focus on veterans’ learning experience and the external environment, but few research center on learning motivation, a deeply psychological variable, and its influence on learning engagement and learning outcome. On the basis of previous studies, this paper establishes a theoretical model between learning motivation and learning outcome under the framework of I-P-O theory and reaches the relationship between learning engagement and learning outcome by analyzing the survey data as an intermediate variable, so as to explore the path to improve the learning engagement and learning outcome of veterans and inquire the way to improve the quality of vocational training.

Objective

After the background analysis in the last part, we find that the quality of higher education is not only a hot issue of academic researches, but also a problem that must be solved in time. Improving the quality of higher education focuses on upgrading the training quality of students, namely to promote the intellectual and social growth and outcome of veterans. Veterans’ family background, educational experience, hardware input of vocational training center and establishment of learning environment will affect the leaning outcome and personal development of veterans during the school time. Based on the above points, this study, through the designed questionnaire, wants to explore how the leaning outcome of veterans in vocational training center is affected by leaning motivation and learning engagement. Thus, conclusions can be drawn to improve the quality of undergraduate education and suggestions can be made to establish a scientific, reasonable and effective higher education quality evaluation system.

Expected benefits

This paper expounds the relationship between learning motivation and learning outcome. At present, most research concerning learning engagement are carried out from the perspectives of educational experience, institutional environment, and congenital factors. Based on the research framework of NSSE, this paper combines learning motivation with research about the impact of learning engagement on learning outcome and looks for factors of learning engagement from the perspective of psychology. Most present research center on the influence of learning motivation on academic achievement, especially on grades. This research have some limitations. This study divides learning outcome into knowledge and skill, self-development, general development, and intellectual development, pays attention to the impact of learning motivation on veterans' development from many aspects, and assess the growth and development of veterans more comprehensively. As a result, the relation between learning motivation and learning outcome can be shown clearly. This paper can put forward some targeted and feasible suggestions to problems like low quality of vocational training and backward evaluation system. This study makes clear how learning motivation affects learning outcome and learning engagement through the investigation of veterans and makes suggestions from the perspective of stimulating the learning motivation of veterans. At the same time, based on the research background, this paper proposes the evaluation concept of vocational training quality around veterans in line with variables in this study.

Conceptual Framework

1 Learning Motivation

The main content of students' learning motivation includes recognition of the value of knowledge (knowledge value), direct interest in learning (learning interest), recognition about their own learning ability (sense of learning ability), and attribution tendency of learning results (achievement attribution). Factors that affect students' learning is comprehensive. The dominant factor is learning motivation. However, it is also closely related with the personal interest of students, learning needs, the cognition of learning, personal values, attitudes towards learning, the aspirations for learning and external factors like the inspiration from family, school and peers.

The main functions of learning motivation are stated as follows: (1) The relationship between learning motivation and learning should be dialectically understood. Learning can promote individual motivation. In turn, motivation promotes individual learning. (2) Various studies in educational psychology show that motivation plays a positive role in promoting learning. (3) Although learning motivation is not a direct dive for learning and it is not directly involved in a certain stage of the cognitive process or assimilation mechanism to function, it is absolutely necessary for individuals to carry out meaningful learning in the long term. First of all, in terms of learning process, Thorndike's cage experiment has proved that continuous attempts make cats complete a learning process of opening the door. The former Soviet psychologist Makalenko studies the duration of children at the age of 5 or 6 to keep certain postures under two different conditions: they are playing a role in the game or not. It is found that motivation can maintain learning behavior and monitor the whole process of learning. Secondly, there are two aspects of the influence on learning outcome: one is the influence of the overall motivation on the whole learning activity and another is the impact of learning motivation on one

specific stage of learning activities. Studies also show that the work efficiency and the strength of learning motivation form an inverted u-shaped curve. It is well-known that the moderate intensity of motivation is best to the completion of tasks and the best motivation level is different with the change of tasks, which is the famous law of Knox and Dodson.

2 Learning Engagement

Students' learning engagement indicates the individual factors of students, such as their behaviors, emotional attitudes, ways of thinking, qualities, will, life experience and learning strategies, and social factors including schools and teachers. Among them, the individual factors of students are the key. Psychological researches show that learning engagement directly affects learning pattern and teaching quality. The more and deeper the factors of learning engagement are, the higher students' learning efficacy is. From the perspective of students, learning engagement includes cognitive engagement, emotional engagement, will engagement, personality engagement and social engagement. The first four items belong to the psychological engagement in terms of emotion, will and personality. Social engagement mainly involves students' learning strategies (learning content, learning resources, learning time, learning methods, etc.), life experience, social vitae (family background and social relations). Although students' learning engagement is the key factor affecting teaching quality, the important role of teachers in the teaching process is to stimulate, allocate and maintain students' various learning engagement factors and encourage them to participate in the teaching process reasonably. In this sense, the role of teachers in the teaching process is dominant. The limitation of "—" and "L" patterns is that they simplify the necessary engagement in learning and only take knowledge as the object and purpose of teaching instead of students.

3 Learning Outcome

Learning outcome stems from psychology and many psychologists have been trying to classify it. However, there is no unified conclusion on the definition of learning outcome at home and abroad. Many scholars like believe that learning outcome lies in acquisition of knowledge, ability and skills of learners after they have finished a certain period of education or gone through a series of learning experiences. (Kan, 2019). At the same time, some other scholars think that the learning outcome is the personal transformation and growth of students after receiving higher education.

There are few studies on the definition of learning outcome in China. It is pointed out that learning outcome is the improvement of knowledge, skills, attitudes, emotions and abilities acquired by learners through learning activities. (Junzheng, 2021). As can be seen from the above definition, learning outcome is not limited to intelligence or learning ability. It also includes students' overall quality and comprehensive ability performance. In nature, it is the development of knowledge and ability acquired by students after completing certain learning tasks. Many domestic scholars use the method of students' self-report adopted in NSSE for reference to obtain the learning outcome of students. Therefore, based on previous studies, this study considers that learning outcome is the development of students' cognition, ability, emotional values and other aspects during learning.

Research Methodology

This chapter analyzes the relationship among learning motivation, learning engagement, and learning harvest. Thus, hypotheses are put forward on their

relationship based on previous research and relevant theories. Based on I-P-O theory, a theoretical framework model is proposed.

Research Design

The Relationship Between Learning Motivation and Learning Outcome

Learning outcomes, especially veterans' academic performance, are not only a focus for veterans' parents, but also a hot area of academic researches. It is found that deep motivation has a more profound influence than surface motivation among factors of veterans' academic achievement. (Octaviany, 2021)

Some scholars also study learning outcomes from other perspectives. It is proposed that when academic performance is taken as the outcome variable, internal motivation and learning attitudes are positively correlated, while external motivation has no obvious relationship with academic performance. (Kong, 2021)

What has been explored includes factors of veterans' learning motivation and their formation mechanism. It is believed that learning motivation clarifies learning goals and strengthens learning outcomes. (Hafel, 2021)

From the above literature analysis, it is not difficult to see that learning motivation has a positively predictive effect on learning effect. However, existing studies mainly focus on the learning performance of veterans. This paper will study learning outcome from multi-dimensional perspectives, which is more inclusive. Hypotheses are proposed as follows:

H1: Learning motivation of veterans has a significantly positive influence on learning outcome.

H1a: Learning motivation of veterans has a significantly positive influence on knowledge and skills.

H1b: Learning motivation of veterans has a significantly positive influence on self-development.

H1c: Learning motivation of veterans has a significantly positive influence on general development.

H1d: Learning motivation of veterans has a significantly positive influence on intellectual development.

The Relationship Between Learning Motivation and Learning Engagement

Through domestic and foreign literature review, it is found that factors affecting veterans' learning engagement mainly fall into innate factors such as gender, race and family background, as well as factors like veterans' learning experience and college environment. A small number of studies are concerned with the influence of learning motivation, a psychological variable, on learning engagement. It is found that the personality and psychological characteristics of veterans also have an important impact on learning engagement. (Fan, 2021)

The personality and psychological characteristics of veterans are not only the result of the combined effect of innate factors, school experience and school environment, but also the important premise of the learning behavior of veterans. Learning motivation is considered to be the basis of learning engagement.

According to Ausubel's learning motivation theory, learning motivation can stimulate and maintain the learning behavior of veterans. Besides, veterans with high learning achievement motivation are more willing to devote more energy in learning activities.

Many scholars' empirical studies have further proved this theory. What is been focused on includes ideological and political education in vocational training centers

and finds a causal relationship between learning motivation and learning engagement. (Zhao, 2019)

Based on the above analysis, this study believes that learning motivation and its various dimensions can affect veterans' learning engagement. Therefore, hypotheses are made as follows:

H2: Veterans' learning motivation has a significantly positive influence on learning engagement.

H2a: Veterans' learning motivation has a significantly positive influence on independent engagement.

H2b: Veterans' learning motivation has a significantly positive influence on interactive engagement.

The Relationship Between Learning Engagement and Learning Outcome

With the increasing abundance of research data, studies on how learning engagement and its indicators affect the quality of higher education emerge one after another. A study selects some undergraduate students of research-oriented universities to conduct investigations. (Yingchun, 2021)

According to the I-P-O theory, he builds "input-process-output" model in the education process of veterans. He finds that the learning engagement of veterans has an important influence on their learning outcomes and the influence is greater than that of college environment. It is discovered that many factors affect learning outcomes and finally it is concluded that the campus environment, including the interaction between teachers and students, can increase the learning outcome of veterans. (Zhang, 2021)

The following hypotheses are proposed based on the above analysis:

H3: Veterans' learning engagement has a significantly positive influence on learning outcome.

H3a: Veterans' learning engagement has a significantly positive influence on knowledge and skills.

H3b: Veterans' learning engagement has a significantly positive influence on self-development.

H3c: Veterans' learning engagement has a significantly positive influence on general development.

H3d: Veterans' learning engagement has a significantly positive influence on intellectual development.

The Mediating Effect of Learning Engagement

Based on the literature review, it can be seen that studies on the relationship between learning engagement and learning outcome are relatively mature, with different research methods and emphases. There are relatively few studies that take learning motivation as an independent variable to explore its influence on learning engagement and learning outcome. Existing studies only pay attention to the impact of learning motivation on academic performance, namely test scores, while ignoring that learning motivation also has an important impact on learning outcome. According to Ausubel's academic achievement motivation theory, learning motivation can affect veterans' academic performance and other aspects of growth by stimulating their specific learning behavior. Therefore, the following hypothesis can be proposed:

H4: Learning engagement plays a mediating role between learning motivation and learning outcome.

H4a: Learning engagement plays a mediating role between learning motivation and knowledge & skills.

H4b: Learning engagement plays a mediating role between learning motivation and self-development.

H4c: Learning engagement plays a mediating role between learning motivation and general development.

H4d: Learning engagement plays a mediating role between learning motivation and intellectual development.

Population and Sampling

It is clear that a certain relationship exists among learning motivation, learning engagement and learning outcome. According to I-P-O theory, this paper takes learning motivation as the “input” variable, learning engagement as the “process” variable, and learning outcome as the “result” variable to construct the following theoretical model.

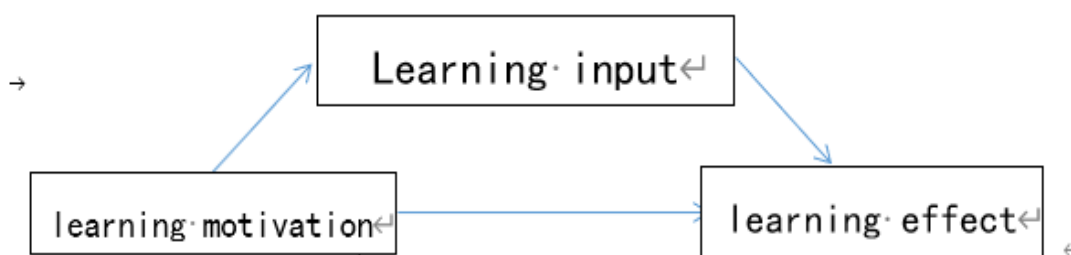


Figure 1 Theoretical Model

Sampling Methods

This paper adopts the questionnaire designed by Tian Lan in 2006, which divides the learning motivation of veterans into four categories. The first category is the learning need, namely the learning motivation generated by veterans to meet their own learning needs and develop their professional interest. The second type is the social orientation, which is to improve their ability to solve problems and strengthen their employment competitiveness through learning. The third category is the fame pursuit, which refers to the learning motivation to improve status and influence. The fourth type is the group pressure, which means that the major learning motivation is to be consistent with teacher's training and serve their hometown. The learning need and the social orientation belong to the same category, namely internal motivation, while the fame pursuit and the group pressure belong to the same category, namely external motivation. Participants are asked how well the question descriptions match their experience of being a veteran, on the degree from 1 to 5, namely from “completely inconsistent” to “completely consistent”.

Sample Size

In this paper, NSSE and NSSE-China questionnaires are used in terms of learning engagement and learning outcome. These two questionnaires have been proved to be reliable and valid in various empirical studies and have been applied in many studies. Based on the above questionnaires, this study sifts the referred questionnaire items in combination with the characteristics of the test group and the suggestions of tutors and experts.

According to the academic and social integration theory, the questionnaire on learning engagement is divided into two parts, autonomous engagement and interactive engagement, with a total of 16 items. The autonomous engagement section measures the veterans’ commitment to self-improvement of courses and jobs. Interactive engagement measures how well veterans interact with their teachers and

classmates. Participants are asked how often they participate in activities listed in the last school year, with numbers 1 to 5 representing an increasing frequency of participation.

The learning outcome questionnaire is divided into four parts, including knowledge and skills required for employment, self-development, general development and intellectual development, with a total of 13 items. Subjects are asked to answer questions about the improvement of the items through college learning, with scores of 1 representing “no improvement”, 2 representing “little improvement”, 3 representing “general improvement”, 4 representing “great improvement” and 5 representing “great improvement”. It mainly tests the improvement of various aspects of veterans in school.

Analytical Methods

The questionnaire in this study has been distributed for one month. A stratified sampling method is used to investigate 709 veterans on the platform of SO JUMP. A total of 709 questionnaires are distributed and collected. They are valid with effective collection rate of 100%.

There are 641 male students, accounting for 90.41%, and 68 female students, accounting for 9.59%. In terms of student origin, urban students constitute 42.74%, and rural students account for 57.26%. The rural students are obviously more than urban students, which also reflects the current distribution of urban and rural population in China. In general, the distribution of the samples is consistent with the overall situation, which is typical to a certain extent.

Research Results

1. Regression analysis of Veterans' learning motivation and learning results

Model 1 is the overall regression analysis of all dimensions as well as variables of learning motivation and learning outcome. The regression analysis coefficients are shown in Table 1. For the learning outcome as a whole, only knowledge need and social orientation enter the regression model and the total regression equation is as follows:

$$LO = 1.618 + 0.375KN + 0.375SO$$

Table 1 Regression Coefficient of Learning Motivation to Learning Outcome for Veterans

Model1			
Learning Outcome			
	β	t	sig
Intercept	1.618	9.123	0.000
Knowledge	0.375	5.565	0.000
Social Orientation	0.344	6.266	0.000
Fame Pursuit	0.166	1.416	0.199
Group Pressure	0.008	0.151	0.899
F		33.891***	
R^2		0.419	
ΔR^2		0.311	

Note : ***p<0.001

This indicates that learning motivation has a positive impact on learning outcome in general. The influence of knowledge need and social orientation passes the significance test, while the influence of fame pursuit and group pressure on learning outcome of veterans does not pass the significance test. Hypothesis H1 is verified.

Table 2 Regression Analysis of Learning Motivation and Learning Outcome of Veterans

Dependent Variable	Model2 Knowledge & Skills		Model3 Self- development		Model4 General Development		Model5 Intellectual Development	
	β	sig	β	sig	β	sig	β	sig
Intercept	1.966	1.966	1.784	0.000	1.469	0.000	1.096	0.000
Knowledge Need	0.366	0.366	0.267	0.025	0.455	0.000	0.451	0.000
Social Orientation	0.297	0.297	0.360	0.000	0.360	0.000	0.353	0.000
Fame Pursuit	-0.056	-0.056	0.222	0.054	0.228	0.073	0.130	0.853
Group Pressure	-0.009	-0.009	0.079	0.396	-0.220	0.245	0.067	0.507
F	8.912***		21.774***		18.979***		25.424***	
R2	0.216		0.333		0.311		0.361	
ΔR^2	0.204		0.323		0.301		0.352	

Note : ***p<0.001

Model 2 uses regression analysis method to analyze the influence of learning motivation on the knowledge and skills required for employment in learning outcome. It can be seen from Table 2 that knowledge need and social orientation enter the model and their regression coefficients are 0.361 and 0.352 respectively. The dimension of fame pursuit and group pressure of veterans' learning motivation cannot enter the regression equation and the regression equation can be described as follows:

$$K\&S = 1.966 + 0.366KN2 + 0.375SO3$$

Learning motivation has a positive impact on the knowledge and skills required for employment promotion. The knowledge need has a greater impact on the knowledge and skills required for employment promotion than social orientation. Fame pursuit and group pressure have an inconspicuous impact on the knowledge and skills needed for employment promotion. Thus the hypothesis H1a is verified.

Taking the four dimensions of learning motivation as independent variables and the self-development dimension of learning outcome as dependent variables, linear regression is conducted to form model 3. The three dimensions of knowledge need, social orientation and fame pursuit are entered into the regression model. The regression equation obtained is as follow:

$$SD = 1.784 + 0.267KN2 + 0.025SO3 + 0.054FP$$

Learning motivation can have an impact on veterans' self-development. Social orientation has the greatest impact on self-development, followed by knowledge need and fame pursuit. The impact of group pressure on veterans' self-development has not passed the significance test. Thus the hypothesis H1b is validated.

Model 4 shows the relationship between learning motivation and general development of learning outcome. The coefficients after linear regression are shown in Table 4.14. The regression coefficients of knowledge need and social orientation

are entered into the regression model through significance test. The regression equation obtained is as follows:

$$GD = 1.469 + 0.455KN2 + 0.360SO3$$

From the regression equation, it can be seen that learning motivation has a positive effect on the general development of veterans. The learning motivation of knowledge need has the greatest effect on general development, followed by social orientation. Fame pursuit and group pressure have no obvious effect on learning outcome. Thus, the hypothesis H1c is verified.

Model 5 shows the relationship between each dimension of learning motivation and intellectual development. The regression model is generally significant. Among the four dimensions of learning motivation in Model 5, only the knowledge need and social orientation enter the regression model. The regression equation obtained is as follows:

$$ID = 1.096 + 0.451KN2 + 0.353SO3$$

It can be concluded that learning motivation has a positively predictive effect on the veterans' intellectual development. Learning motivation can explain 24.1% of veterans' intellectual development. It is assumed that H1d has been verified.

2 Regression Analysis of Veterans' Learning Motivation to Learning Engagement

In this section, linear regression analysis is conducted on the relationship between all dimensions of learning motivation and learning engagement itself so as to find out whether and how much each dimension of learning motivation has an impact on all dimensions of learning engagement so as to verify the hypotheses proposed in Chapter 2. The regression analysis results are shown in Table 3.

Table 3 Regression Analysis of Learning Motivation and Learning Engagement for Veterans

Dependent Variable	Model6 Learning Engagement		Model7 Autonomous Engagement		Model8 Interactive Engagement	
	β	sig	β	sig	β	sig
Intercept	1.630	0.000	1.953	0.000	1.006	0.000
Knowledge Need	0.384	0.000	0.253	0.005	0.409	0.000
Social Orientation	0.175	0.108	0.333	0.000	0.085	0.244
Fame Pursuit	0.311	0.599	-0.169	0.285	0.469	0.000
Group Pressure	-0.147	0.000	0.255	0.002		
F	25.608***		25.434***		15.243***	
R2	0.363		0.362		0.343	
$\Delta R2$	0.363		0.352		0.336	

Note : ***p<0.001

Model 6 shows the regression relationship between various dimensions of learning motivation and overall learning engagement. Regression coefficients are shown in Table 4-15. The correlation coefficients of knowledge need and fame pursuit of veterans' learning motivation are 0.343 and 0.336 respectively. The other two dimensions have no obvious influence on the overall learning engagement. The regression equation is as follow:

$$LE = 1.630 + 0.384KN2 + 0.311FP6$$

It can be concluded that learning motivation has a positive impact on learning engagement, among which the knowledge need and the fame pursuit have a greater impact on learning engagement as a whole, while social orientation and group pressure have an insignificant impact on learning engagement of veterans. Hypothesis H2 is verified.

Model 7 shows the relationship between learning motivation and autonomous engagement of veterans. The regression analysis results are shown in Table 3. Among the four dimensions of learning engagement, knowledge need, social orientation and group pressure enter the regression model. The model is significant as a whole. The regression equation is as follow:

$$AE = 1.953 + 0.253KN2 + 0.333SO3 + 0.225GP$$

According to the regression equation, learning motivation has a significantly positive impact on the autonomous engagement of learning engagement. The knowledge need has the greatest impact on the autonomous engagement. Social orientation and group pressure have the same impact on the learning engagement. Fame pursuit has no significant impact on the learning engagement. It is assumed that H2a is verified.

Model 8 is the regression model of each dimension of learning motivation on interactive engagement. Since there is no significant correlation between the group pressure dimension of learning motivation and interaction engagement, group pressure is not included in Model 8. After linear regression analysis, the knowledge need and the fame pursuit enter the regression model and the whole model is significant. The regression equation obtained is as follow:

$$IE = 1.006 + 0.409KN2 + 0.085FP6$$

Learning motivation has a significantly positive impact on veterans' interactive engagement, among which the knowledge need and the fame pursuit have a greater impact on interactive engagement, while the social orientation dimension of veterans' learning motivation has no significant impact on interactive engagement. It is assumed that H2b has been verified.

3 Regression Analysis of Learning Engagement and Learning Outcome for Veterans

Model 9 shows the overall relationship among autonomous engagement, interactive engagement and learning outcome. The regression analysis results are shown in Table 4. The regression coefficients of both autonomous and interactive engagement are significant. The regression equation is as follow:

$$LO1 = 1.496 + 0.449AE10 + 0.402IE12$$

Table 4 Regression Analysis Between Learning Engagement and Learning Outcome for Veterans

	Model 9 Learning Outcome		
	β	t	sig
Intercept	1.496	8.132	0.000
Autonomous Engagement	0.449	6.819	0.000
Interactive Engagement	0.402	7.855	0.000
F		79.285***	
R2		0.453	
$\Delta R2$		0.448	

Note : * * *p<0.001

It can be concluded that both autonomous engagement and interactive engagement have an overall impact on veterans' learning outcome. The impact of autonomous engagement on learning outcome is greater than that of interactive engagement. Hypothesis H3 has been verified.

Table 5 Regression Analysis of Learning Engagement and Learning Outcome for Veterans

Dependent Variable	Model 10 Knowledge & Skills		Model 11 Self- development		Model 12 General Development		Model 13 Intellectual Development	
	β	sig	β	sig	β	sig	β	sig
Intercept	0.462	0.229	1.930	0.000	1.991	0.000	1.452	0.000
Autonomous Engagement	0.717	0.000	0.498	0.000	0.190	0.422	0.378	0.000
Interactive Engagement	0.363	0.000	0.281	0.002	0.535	0.000	0.470	0.000
F	81.762***		30.893***		33.707***		43.673***	
R2	0.655		0.279		0.292		0.333	
$\Delta R2$	0.653		0.273		0.286		0.328	

Note : ***p<0.001

Model 10 is the regression analysis model of learning engagement to the knowledge and skills required for employment of learning outcome. After the linear regression of the two variables, it is found that the two dimensions of autonomous engagement and interactive engagement of learning motivation have entered the regression model. The regression equation is as follow:

$$K\&S4 = 0.717AE10 + 0.363IE12$$

It can be seen that learning engagement has a positively predictive effect on the improvement of knowledge and skills required by veterans' employment. Autonomous engagement has a great impact on the improvement of knowledge and skills required by veterans' employment. Hypothesis H3a has been verified.

Model 11 is the regression model of self-development dimension of learning outcome of veterans based on autonomous engagement and interactive engagement. The regression coefficient is shown in Table 5. The two dimensions of autonomous engagement and interactive engagement of veterans' learning motivation are both entered into the regression model, which is significant on the whole. The regression equation obtained is as follow:

$$SD5 = 1.193 + 0.498AE10 + 0.281IE12$$

Learning engagement has a significant impact on the self-development of veterans, especially the autonomous engagement.

Model 12 is the regression model of learning engagement on the general development dimension of learning outcome. Among the two dimensions of learning engagement, only interactive engagement enters the regression model, which is significant on the whole. The regression equation thus obtained is as follow:

$$GD7 = 1.991 + 0.535IE12$$

It can be seen that learning engagement has an impact on the general development dimension of veterans' learning outcome. Interactive engagement has a greater impact on the general development dimension of veterans' learning outcome,

while the autonomous engagement has an insignificant impact on the general development dimension of veterans' learning outcome. Thus, hypothesis H3c has been verified.

Model 13 takes learning engagement as the independent variable and the dimension of intellectual development of learning outcome as the dependent variable for linear regression analysis. The two dimensions of autonomous engagement and interactive engagement in learning engagement are entered into the regression model. The model is generally significant and the regression equation obtained is as follow:

$$ID8 = 1.452 + 0.378AE10 + 0.470IE12$$

The above data indicate that learning engagement has a significantly predictive effect on the intellectual development of veterans, among which interactive engagement is more conducive to promoting the intellectual development of veterans. Thus, the hypothesis of H4d has been verified.

4 An analysis of the Mediating Effect of Learning Engagement

According to the theory proposed by Baron and Kenny (1986), when both the explanatory variable and the intermediary variable enter the regression equation at the same time, if the regression coefficient of the explanatory variable remains significant and decreases, it indicates that the intermediary variable has a partially mediating effect. If the regression coefficient of the explanatory variable changes from significant to insignificant, it indicates that the intermediary variable has a completely mediating effect. In order to verify the mediating effect of learning engagement, learning motivation is first put into the regression equation and its regression coefficient is observed. Then learning engagement is added into the regression equation to observe the change of the regression coefficient of learning motivation.

(1) The Mediating Effect of Learning Engagement on Learning Motivation and Knowledge & Skills for Veterans

In this part, each dimension of learning motivation of veterans is taken as the explanatory variable and the knowledge & skill dimension of learning outcome is taken as the explained variable to explore the mediating effect of learning engagement. Regression data of mediating effect test are shown in Table 6.

Table 6 Mediating Effect of Learning Engagement on Learning Motivation and Knowledge & Skills

	Model	Model 2		Model 14		Model 15	
		β	sig	β	sig	β	sig
Dependent Variable	Intercept	1.966	0.000	0.620	0.063	1.466	0.000
	Knowledge Need	0.366	0.000	0.267	0.027	0.211	0.261
	Social Orientation	0.297	0.002	0.142	0.648	0.288	0.002
	Fame Pursuit	-0.156	0.579	-0.006	0.941	-0.317	0.002
	Group Pressure	-0.118	0.933	-0.219	0.207	0.179	0.426

Table 6 Mediating Effect of Learning Engagement on Learning Motivation and Knowledge & Skills (Cont.)

	Model	Model 2		Model 14		Model 15	
		β	sig	β	sig	β	sig
Mediating Variable	Autonomous Engagement			0.804	0.000		
	Interactive Engagement					0.536	0.000
Model Points	F	8.912***		26.962***		19.421***	
	R2	0.216		0.419		0.353	
	Δ R2	0.104		0.407		0.34	

As can be seen from Table 6, model 14 is formed after autonomous engagement is added into Model 2. The model is significantly overall. The sig value of regression coefficient of social orientation changes from 0.001 to 0.42, indicating that autonomous engagement plays a completely mediating role in the relationship between social orientation and the knowledge & skills required by veterans for employment. The regression coefficient of knowledge need is still significant and decreases, indicating that autonomous engagement plays a partially mediating role between knowledge need and knowledge & skills.

Model 15 verifies the mediating role of interactive engagement. It can be seen from Table 6 that the regression coefficient of knowledge need in Model 15 becomes 0.1 and is not significant, indicating that interactive engagement plays a completely mediating role between knowledge need and knowledge & skills. The regression coefficient of social orientation still remains significant and decreases, indicating that interactive engagement plays a partially mediating role between social orientation and knowledge & skills.

In general, learning engagement plays a mediating role in the relationship between learning motivation and knowledge & skills of learning outcome. Thus, hypothesis H4a is verified.

(2) The Mediating Effect of Learning Engagement on Learning Motivation and Self-development for Veterans

This part takes learning motivation as the independent variable and adds two dimensions of learning engagement as intermediary variables respectively to verify the mediating relationship among learning engagement, learning motivation and self-development. The results of regression analysis are shown in Table 7.

Table 7 Mediating Effect of Learning Engagement on Learning Motivation and Self-development for Veterans

	Model	Model 3		Model 16		Model 17	
		β	sig	β	sig	β	sig
Dependent Variable	Intercept	1.784	0.000	1.291	0.000	1.573	0.000
	Knowledge Need	0.267	0.025	0.231	0.068	0.201	0.275
	Social Orientation	0.360	0.000	0.304	0.000	0.346	0.000
	Fame Pursuit	0.222	0.054	0.236	0.03	0.054	0.570

Table 7 Mediating Effect of Learning Engagement on Learning Motivation and Self-development for Veterans (Cont.)

	Model	Model 3		Model 16		Model 17	
		β	sig	β	sig	β	sig
	Group Pressure	0.179	0.396	0.142	0.732	0.211	0.225
Intermediary Variable	Autonomous Engagement			0.365	0.000		
	Interactive Engagement					0.29	0.002
Model Point	F	21.774***		20.600***		20.274***	
	R2	0.333		0.364		0.36	
	Δ R2	0.323		0.352		0.349	

After incorporating autonomous engagement into the model of the relationship between learning motivation and self-development, Model 16 is formed. It can be seen from Table 7 that the regression coefficient of knowledge need becomes 0.23 and is not significant compared with Model 3. The data changes in Table 7, which indicates that autonomous engagement plays a completely mediating role between knowledge need and self-development. The regression coefficient of social orientation still remains significant and decreases from 0.360 in Model 3 to 0.346, indicating that autonomous engagement plays a partially mediating role in the relationship between social orientation and self-development.

Model 17 verifies the mediating effect of interactive engagement on learning motivation and self-development. It can be seen from Table 7 that the regression coefficient of knowledge need changes from significant to insignificant, while the regression coefficient of social orientation decreases and remains significant. The results show that interactive engagement plays a completely mediating role between knowledge need and self-development. It also plays a partially mediating role between social orientation and self-development.

By observing the data changes in Model 16 and Model 17, it can be seen that veterans' learning engagement plays a mediating role in the self-development dimension of learning motivation and learning outcome. Thus, the hypothesis H4b is verified.

(3) The Mediating Effect of Learning Engagement on Learning Motivation and General Development for Veterans

This part takes the general development of learning outcome as the dependent variable to verify the mediating effect of learning engagement on learning motivation and general development. The verification results are shown in Table 8.

Table 8 Mediating Effect of Learning Engagement on Learning Motivation and General Development for Veterans

	Model	Model 4		Model 18		Model 19	
		β	sig	β	sig	β	sig
Dependent Variable	Constant	1.469	0.000	1.443	0.000	1.354	0.000
	Knowledge Need	0.455	0.000	0.453	0.000	0.326	0.004
	Social Orientation	0.360	0.000	0.357	0.000	0.349	0.000
	Fame Pursuit	0.228	0.073	0.229	0.073	-0.028	0.903
	Group Pressure	-0.210	0.245	-0.222	0.244	-0.057	0.621
Intermediary Variable	Autonomous Engagement			0.024	0.986		
	Interactive Engagement					0.464	0.000
Model Point	F	19.090***		16.250***		24.129***	
	R2	0.311		0.311		0.396	
	Δ R2	0.301		0.298		0.384	

As can be seen from Table 8, when autonomous engagement is added as an intermediary variable to form Model 18, the regression coefficients of knowledge need and social orientation still remain significant. The regression coefficients decrease from 0.455 and 0.360 in Model 4 to 0.326 and 0.349 in Model 18. The results show that autonomous engagement plays a partially mediating role among knowledge need, social orientation and general development. In Model 19, interactive engagement is taken as the intermediary variable. According to the data in Table 8, interactive engagement plays a partially mediating role in the relationship among knowledge need, social orientation and general development. Therefore, it can be seen that learning engagement plays a mediating role in the relationship between the general development dimension of learning motivation and learning outcome for veterans. Thus, the hypothesis H4c has been verified.

(4) The Mediating Effect of Learning Engagement on Learning Motivation and Intellectual Development

In this part, the intellectual development dimension of learning outcome is taken as the dependent variable. Model 20 and Model 21 are both added into Model 5 to verify the mediating relationship among learning engagement, learning motivation and intellectual development. The verification results are shown in Table 9.

Table 9 Mediating Effect of Learning Engagement on Learning Motivation and Intellectual Development for Veterans

	Model	Model 5		Model 20		Model 21	
	Regression Coefficient	β	sig	β	sig	β	sig
Dependent Variable	Constant	1.196	0.000	0.89	0.005	0.768	0.004
	Knowledge Need	0.451	0.000	0.429	0.000	0.319	0.002
	Social Orientation	0.353	0.000	0.318	0.000	0.343	0.000
	Fame Pursuit	0.130	0.853	0.039	0.734	-0.230	0.047
	Group Pressure	0.067	0.507	0.044	0.727	0.232	0.063
Intermediary Variable	Autonomous Engagement			0.268	0.050		
	Interactive Engagement					0.475	0.000
Model Point	F	25.424***		21.445***		32.946***	
	R2	0.361		0.372		0.463	
	Δ R2	0.352		0.360		0.452	

It can be seen from Table 9 that in Model 20 and Model 21, the regression coefficients of knowledge need and social orientation remain significant. They decrease from 0.451 and 0.353 in Model 5 to 0.429 and 0.318 in Model 20 as well as 0.319 and 0.343 in Model 21. The results show that autonomous engagement and interactive engagement play a partially mediating role in the relationship between knowledge need and intellectual development. Autonomous engagement and interactive engagement play a partially mediating role in the relationship between social orientation and intellectual development. In general, learning engagement mediates between learning motivation and intellectual development. Thus, the hypothesis H4d is validated.

Summary of the Study

1. Relationship Between Learning Motivation and Learning Outcome

The results of the correlation analysis show that the learning motivation of the veterans' knowledge need is correlated with the four dimensions of learning outcome and has the strongest correlation with veterans' intellectual development. The results of regression analysis show that, among all dimensions of the learning motivation, the knowledge need has an impact on the knowledge & skills, self-development, general development and intellectual development required by the veterans for employment. Veterans with a strong desire for knowledge think that learning is a kind of fun. They enrich themselves through learning so as to improve their ability in all aspects. It can be seen that stimulating the interest of veterans in knowledge can improve the overall quality and ability of veterans. There is a significantly positive relationship between the social orientation dimension of learning motivation and the four dimensions of learning outcome. Among the four dimensions of learning outcome, social orientation has the highest degree of correlation with the self-development of veterans. This

result is further strengthened and deepened in the following regression analysis. Social orientation is included in models 1 to 5. Socially oriented veterans want to learn skills to survive in the society and feel a strong sense of satisfaction from socializing in the “small society” of school. The veterans with strong motivation in ability pursuit are persistent to improve their ability in all aspects, so they can achieve higher learning outcome. In the regression analysis of the learning outcome of fame pursuit, the learning motivation of fame pursuit is not related to the improvement of knowledge & skills required by the employment of veterans. The degree of correlation between fame pursuit and other three dimensions of learning outcome is lower than that of knowledge need and social orientation. In the regression analysis, only the fame pursuit enters into model 3. In other words, the motivation of the veterans to pursue fame through learning only has a positive impact on the self-development of the veterans. Veterans with strong fame pursuit want to gain respect from others and expand their influence through learning, so it only has a positively predictive effect on veterans’ self-development, but has no significant influence on veterans’ improvement in knowledge & skills. The group pressure of veterans is related to the four dimensions of learning outcome. However, it is not included in the regression model, which suggests that studying pushed by group pressure does not bring higher learning outcomes. In general, in terms of internal motivation, the knowledge need and the social orientation positively affect the learning outcome. However, the external motivation like fame pursuit and group pressure can not effectively improve the learning outcome of veterans. Therefore, interest itself is the best booster for development. Only when we are really interested in knowledge and want to improve ourselves from our deep heart can we enrich and improve ourselves in the process of university study.

2. The Relationship Between Learning Motivation and Learning Engagement

The positive correlation among the four dimensions of learning motivation, autonomous engagement and interactive engagement has passed the significance test. Knowledge need, social orientation and group pressure positively affect autonomous engagement, while knowledge need and fame pursuit positively affect interactive engagement. First of all, it shows that veterans with strong motivation to learn will be more active in physical practice and more willing to engage in learning activities. At a deeper level, the knowledge need is crucial for learning engagement. Only by truly taking learning as one's own interest can one be more fully engaged in learning. People who are motivated by fame are more likely to interact and communicate with others. The supervision and pressure from teachers, elders, and friends around veterans do not effectively promote communication with teachers and peers.

3. The relationship Between Learning Engagement and Learning Outcome

Autonomous engagement and interactive engagement, namely the two dimensions of veterans’ learning engagement are correlated with the four dimensions of learning outcome. The two dimensions of learning engagement enter model 10, Model 11 and model 13. Interactive engagement enters Model 12, while autonomous engagement does not. Learning outside the classroom, participation in practical activities, and active communication with teachers and peers are critical to all aspects of a veteran’s development. In the process of learning, veterans can increase their time and energy devoted in learning in and out of the classroom, improve their knowledge and skills needed for employment, broaden their horizons, and enhance the ability to solve problems. Good interaction with teachers and classmates has a very positive effect on the overall development of veterans.

4. The Mediating Role of Learning Engagement

The influence of learning motivation on learning outcome has been verified theoretically and empirically. The key to reveal the influence mechanism is learning engagement. In the data validation, both autonomous and interactive engagements play a mediating role in learning motivation and learning outcome, which has been verified. In the study about the mechanism of learning motivation on learning outcome, there are two dimensions in learning motivation, namely knowledge need and social orientation. They have successfully entered into the validation model one to five, but two other dimensions are not verified. All of these indicate that in the learning life of veterans, their internal motivation is more useful. Their external motivation may seem to have a short-term effect, but does not last for long. The mediating role of autonomous and interactive engagements also indicates that when veterans want to learn, they will generally get the desired effect through these two aspects. Therefore, learning motivation not only produces results directly, but also produces outcomes by influencing learning engagement.

Discussions

This study is a scientific and reasonable one about learning motivation, learning engagement and learning outcome based on studies from domestic and foreign scholars. Despite choosing scientific and reasonable research methods and following strict research logic to draw some research conclusions, there are some inevitable limitations due to the author's inadequate ability in this study. First of all, researches on learning motivation of veterans are insufficient. The learning motivation table borrowed to this study not only divides learning motivation into four dimensions (knowledge need, social orientation, fame pursuit and group pressure), but also classifies knowledge need and social orientation as internal motivation and fame pursuit and group pressure as external motivation. This study only discusses the veteran case when learning motivation is divided into four dimensions, without taking two dimensions into consideration. Secondly, this study takes the cross-section data of veterans. Because time and money is limited and it is difficult to contact with veterans, the secondary data can not be collected among the same group and the longitudinal comparison research is possible. Therefore, whether there are completely mediating role among latent variables still needs further research. Finally, in terms of sample selection, this study only selects five vocational colleges in Tianjin and the sample selection coverage is not large enough. Sample selection should be representative and has a wide coverage so that the research conclusion is more reliable and typical.

Recommendations

1. Establish a Veteran-centered Outlook of Higher Education

Education quality is related to the future of any country or nation and bears the important mission of improving the quality of everyone and training talents for country's development. Under the background of economic transformation and development, education has also embarked on the road of paying more attention to quality development. In China's traditional higher education quality evaluation system, teachers' scientific research achievements and the investment of school resources are often emphasized. Such an evaluation system is easy to quantify and implement, but it does not pay attention to the learning experience and the learning outcome of veterans. Therefore, it inevitably ignores the essential characteristics of

veterans as the dominant role of education, which will be contrary to the original intention of education. Therefore, it is very important and necessary to develop and establish a new evaluation outlook for quality education. Veterans are the object and the main body of higher education. It is difficult to quantify their growth in aspects of experience, feelings and participation during the process of learning. However, it is inappropriate to only take scientific research and course hour as criteria to assess whether a teacher and a course are qualified. With the advent of the new era, the needs of veterans, the learning content, the ability requirements are all changing, so is the educational focus. For example, in the assessment about teachers, we should not only pay attention to the amount of scientific research and teaching hour, but also focus on whether they often communicate with veterans in the process of participating in scientific research projects and teaching. The hardware facilities invested by schools should be sufficient and reasonable in distribution and utilization. To sum up, the evaluation of higher education quality should include aspects related to veterans' experience and overall development. At the same time, the evaluation of school investment should involve quantity and utilization.

2. Stimulate Veterans' Interest for Knowledge

From the analysis in the previous section, we can see that the influence of the internal motivation of knowledge need and social orientation of learning outcome is far greater than that of the external motivation of fame pursuit and group pressure. Vocational training centers should first make clear the importance of veterans' internal motivation for their learning. At the same time, they should make veterans themselves aware of this problem through relevant policy documents or education and improve their learning outcome by stimulating internal motivation. First of all, from the personal point of view, students should constantly cultivate their interest in learning. In daily learning, we can not be satisfied with a little understanding. In-depth study should be conducted for slightly interesting problems so as to further explore the fun of learning, cultivate their thirst for knowledge, and develop a good habit of learning and asking questions. Secondly, as teachers often interact with veterans, they should actively adopt the heuristic teaching method by using questions to lead veterans think positively, assigning teamwork assignments and guiding them to integrate information and discuss collectively so as to stimulate their learning interest, improve their thinking ability, provide a broader space for interaction and exhibition, and fully exert the role of teachers. Teachers should take the initiative to strengthen communication with veterans in class or out of class to truly understand veterans in order to create good conditions for guiding the veterans. Finally, school should strengthen its cultural building, cultivate learning atmosphere in campus and nourish a good school spirit. The campus often function in learning English and expanding academic clubs. The key lies in campus. When school has a good learning atmosphere, veterans with weak learning motivation can be stimulated. Schools should cultivate the sense of success among veterans so that they can integrate their personal motives and ideals with the surrounding environment and become truly useful to society.

3. Pay attention to the Learning Process of Veterans and Improve Their Learning Engagement

For both retired officers and veterans, our evaluation often focuses on the some quantitative indicators like their academic performance and ignores their learning process. Veterans' active participation in the learning process is a prerequisite for good academic performance and multifaceted growth. Therefore, the

whole society, especially schools, should actively mobilize the enthusiasm of veterans, create good hardware conditions and cultural system environment for veterans to fully participate in the learning process and improve the learning engagement of veterans. School system, teachers and other aspects should be taken into account to improve the engagement of veterans. First of all, schools should try their best to formulate talent training plans consistent with social development and veterans' interests. Curriculum design and training methods should be more scientific and reasonable. Secondly, schools should make full use of the limited material resources to create a good physical space for the communication between teachers and veterans as well as the communication among veterans. The most important thing is that schools encourage veterans to participate in learning activities through institutions such as developing numerous elective courses, establishing channels for veterans to get familiar with diverse majors and different people, setting up programs to encourage teachers and veterans to cooperate in completing projects, applying for funds related to veterans' all-round development, paying real attentions to veterans' all-round development, encouraging teachers to guide veterans to participate in class activities, and improving the profundity of knowledge and extension of capacity.

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The Impact of Teachers' Teaching Innovation Awareness on Students' Dance Creativity: A Case Study from Yunnan

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Abstract

By observing and reflecting on my observations and learning experiences, the author explores the impact of a teacher's sense of pedagogical innovation on students' dance creativity. This paper attempts to use the standardized teaching methods and systematic curriculum of university dance education to address the creative enhancement of student dance to folk dance. The author has conducted an in-depth, systematic, and comprehensive analysis and comparative study of the theoretical and practical aspects of the program through a long-term study of selected art colleges in Yunnan Province. This paper aims to demonstrate the useful forms in which high-quality educational dance can provide a diverse understanding of creative thinking and the positive impact that a teacher's sense of pedagogical innovation can have on students' dance-making.

Keywords: awareness of teaching innovation, dance creativity, folk dance

Background and Statement of the problem

Cultivating students' learning autonomy and creativity in dance teaching requires not only that students themselves have strong self-conditions, but also that teachers guide them through the right methods to make them fall in love with dance. Teachers need to cultivate students with different abilities through scientific, rational, and personal, A personalized approach, discovering their strengths and tapping into their personalities in well-trained each student's potential and individuality, and cultivating dance talents with true autonomy and creativity. At present, the different forms of folk dances scattered among the various ethnic groups in China, apart from their forms and expressions, have been deposited deep in people's consciousness and social-psychological mechanisms for generations, and their cultural capacity is so complex and profound that they may appear poor and thin if studied from the discipline of dance alone. Therefore, its research approach should be new, comprehensive, crosscutting a, ND Marg, in the multidisciplinary study.

Traditional Chinese dance forms have developed fixed Stylized after a long history of sedimentation. It not only limits the expression of ideological content but also probes the choice of themes. For this fixed dance form, the modern dance genre calls it the 'movement pattern'. This fixed form was later transferred to places where there was no new consciousness or expression, creating a mass of works that resembled copies. If dance is seen as a cultural form, then dance education is a logical 'messenger' or means of preserving dance culture. Ideally, dance education is lifelong and humanistic, but it is also an important way of expressing, transmitting, and experiencing the beauty

Through dance education, people feel and experience the beauty of dance and experience the feeling and creation of culture, which is an irreplaceable form of education. With the development of dance education in China in the 21st century, Professor Lv Yisheng put forward the concept of "dance quality education" in 2014, which laid an important ideological foundation for the development of dance

education theory in China in the 21st century. While affirming the art of dance education, he particularly emphasizes the function and value of dance education, arguing that culture is the foundation of dance and that the focus of developing dance education in China is dance education theory, not just professional learning environments.

The phenomenology in this study is therefore phenomenological in that it focuses on the actions, and ideas, of students. The phenomena it refers to are not the emergence of these students, nor the fact of their objective experience, but a purely conscious existence distinct from any of their learning experiences. Its essential features are primarily methodological, i.e. a return to the original phenomena of consciousness, a description, and analysis of the processes of constitution of concepts, including basic concepts and categories, in partial validity of meaning. Only on this basis can the true meaning of the development of creative thinking in dance education be discerned, so that the question of the development of creative thinking in dance education can be reinterpreted and studied in depth in the field of dance education.

Objectives

Learn the teaching philosophy of modern dance to improve the method patterns the teaching philosophy of modern dance is in line with the modern teaching philosophy it raises the importance of developing the creativity of the plane. It allows student dancers to join in the choreography. Its main focus is not on the rational transfer of knowledge and skills but redeveloping Awareness and creative dance ability.

This thesis attempts to take advantage of the Standardized teaching and systematic curriculum of professional dance education in colleges and universities to seek new ways to resolve the contradictions between traditional ways of inheritance and the current trend of ethnic cultural preservation, to promote the development of the cause of inheritance of China's outstanding ethnic folk culture, and to realize the strategic goal of cultural revival and cultural power of the Chinese nation as soon as possible.

1. Innovation in teaching content and teaching awareness
2. Reasonable use of teaching Methods a rigorous teaching system

Expected benefits

The purpose of this article is not to compare and study the differences in dance education, but to focus on finding common ground in the differences and to explore reflections on the common topic of creative thinking in dance education.

To stimulate students' autonomy and creativity in learning in dance teaching, students must not only be strong in their also require teachers to guide them through the right methods to make them fall in love with dance. Teachers must cultivate students of different abilities through and a d personalized teaching methods, discovering their strengths and tapping into their personalities in training to maximize each student's potential and individuality, and cultivating truly autonomous and creative dance talents.

The launch of the large-scale collection of original songs and dances, Impressions of Yunnan, provides a model to ponder on how to inherit and innovate folk dance culture, how to go to market, and how to achieve innovative industrialization of dance education. Its launch has at least two practical implications:

firstly, how to renew, develop and innovate Yunnan folk dance and discover the individuality of artists; secondly, how to unify the social and economic benefits of Yunnan folk dance and industrialize it in developing the market, providing a new way to solve employment and economic development in less developed regions, but improving the environment and developing local cultural industries through cultural construction will promote limited resources appreciation and create more favorable conditions for regional economic development.

Conceptual Framework

Phenomenology is essentially a philosophical argument that cognition and experience play an important role in understanding and engaging with the world, with a focus on describing lived experience. Human beings all over the world are part of complex social and cultural structures and, as we know today, language and gesture, movement and interaction, sight and hearing, emotion, and cognition are all involved in the developmental process of the human mind. Dance is not only a movement phenomenon that makes itself consciously present; it is both a vivid and significant human experience and formative performing art, where the experience of the dancer and the audience is a lived experience.

Within a qualitative framework, the constructivist paradigm is appropriate for this research, meaning that the reality of each research participant may vary according to psychological, social, and experiential influences. Constructivists believe that all knowledge is constructed that rates are not passive but changing and meaningful within a constructivist structure.

Given the necessity and importance of the study of the heritage of Yunnan folk dance in the innovation of dance education, as well as the relative lack of research at home and abroad, this paper intends to start with the innovation of dance teaching, using a survey and examination of three art colleges in Yunnan Province as an entry point. This paper presents an in-depth, systematic, and comprehensive study of the inheritance of Yunnan minority dances in dance teaching innovation from the perspectives of art, anthropology, and education, in an attempt to construct a 'basic inheritance model of Yunnan minority dances in dance teaching innovation' with positive implications for reference. As such, it becomes one of the effective ways to construct a diversified heritage of Yunnan minority dances and promote the development of the cause of "intangible cultural heritage protection" in China.

Research Methodology

This study takes the case of Yunnan's original folk dance heritage and innovation in university dance education as a case study, based on how Yunnan's minority dances are introduced into the art education classroom through educational innovation, and how the heritage, protection, action, and development of Yunnan's minority dances can be achieved through diversified construction so that traditional ethnic arts can be passed on from generation to generation?

Based on the information needed for this study, the questionnaire design with the basic requirements for questionnaire design in sports research methodology concerning to previous literature. The author conducted a questionnaire survey of some 209 teachers, students and grad graduates of the Yunnan Institute of Ethnic and Folk Arts to conduct preliminary analysis and study of the current situation, problems and This questionnaire was designed with a five-point Likert scale for survey analysis to ensure the feasibility of the data collected. Correlation analysis and significance

tests were conducted for this thesis and the questionnaire was reliable and met the requirements. The specific dimensions measured are as follows.

Independent variable dimension	1	2	3	4	5
Teaching Awareness					
1. have a good knowledge of the culture of their people.					
2. you like the culture of your people very much.					
3. you have read the school syllabus before entering the classroom.					
4. The content of the lessons taught is strictly by the syllabus provided by the school.					
5. The teaching schedule meets the requirements of the syllabus.					
educational					
Educational Innovations					
1. You are satisfied with the effectiveness of the school's teaching to students.					
2. You have sufficient dance materials to use in your teaching.					
3. you can work out any creative difficulties, if any, in the teaching process					
4. You are satisfied with the courses arranged by the dance school (before graduation work).					
5. You think that the choreographic focus of a dance choreography class should be on new and unique ideas and entry points, as well as creating beautiful and exciting body language.					
6. Do you think improvisation is more conducive to developing students' creative thinking?					
Of the options, 1 means "strongly disagree", 2 means "less agree", 3 means "average", 4 means "more agree" and 5 means "strongly agree"					
Dependent variable dimensions	1	2	3	4	5
Student Dance Creativity					
1. How do you think the phenomenon of school-folk dance collaboration can better contribute to the innovative transmission of local minority dances in Yunnan?					
2. Teachers' innovation has led to deeper innovation in the transmission of folk dance by students.					
3. How do you think such a way of learning is conducive to your general movement?					
4. You think that participating in the innovation of folk dance, will help you in your future work.					
5. You feel that the teacher's sense of innovation is important to the students' dance innovation.					
6. You feel that learning folk dance innovation has improved your general quality and developed your interest in dance from it.					

Independent variable dimension	1	2	3	4	5
7. You think that enhancing the habit of using more brains and thinking hard, in general, is conducive to the development of innovation in dance teaching.					
8. You think that focusing on the cultivation of creative thinking in dance teaching is conducive to enhancing students' sense of creativity.					
9. You think that teaching students to be creative and usually focus on the cultivation of creative thinking has a positive impact on the cultivation of creative ability in dance teaching.					
10. You think that students' ability to come up with different ideas and apply them to choreography in novel ways has a positive impact on the development of creative skills in dance teaching.					
Of the options, 1 means "strongly disagree", 2 means "less agree", 3 means "average", 4 means "more agree" and 5 means "strongly agree"					

Research Results

History is a continuum, and to understand today's educational reforms it is necessary to focus on education today, for it is certainly a product of its time and the traces of history can never be erased from it. Only by understanding the past, and only on the basis of lessons learned from it, can we speak of reform and innovation. The analysis of the situation of Yunnan folk dance incorporated into teaching, to uncover the problems that exist, and to explore the root causes of the problems, the author has surveyed folk dance teachers, students, and graduates in some art colleges in Yunnan, and has made a preliminary analysis and study of the current characteristics and problems that exist. Through the investigation of actual cases, the author summarizes two levels and six perspectives to launch an in-depth and comprehensive study of this thesis, analyzing the respective strengths and weaknesses in favor of favor traction of a basic model for advancement.

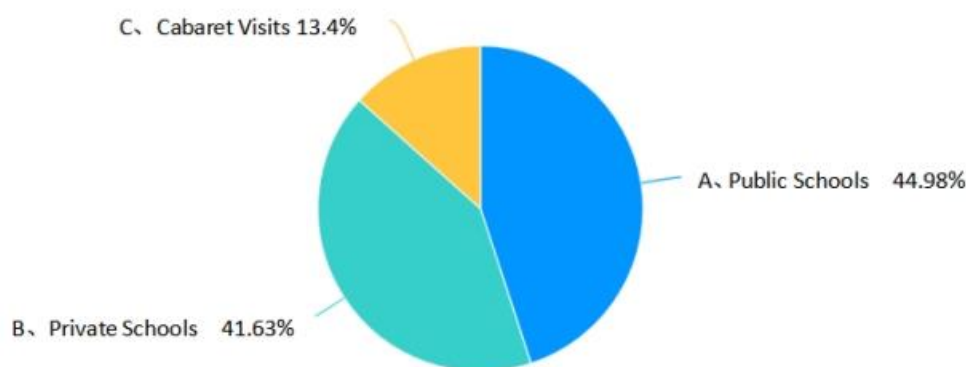


Figure 1 Histogram of Nature e of school

Table 1 shows the mean standard deviation and opinion level, operational results of teachers' dance education innovations on students' creativity in dance.

Evaluation list	Evaluation		
	μ	σ	Results
1. Dance Teaching Methods	21.421	7.074	Quite high
2. Innovation in Dance Education	14.105	4.810	high
3. Student Dance Creativity	21.746	6.888	high

Summary of the Study

Firstly, the findings of this study show that students have different personalities and learning experiences and that teachers also influence the meaning of dance creation. Students have different attitudes towards educational differences and different understandings of what it means to create a dance. These different understandings influenced their engagement with creative dance. Furthermore, these dance students use different methods to generate and transmit knowledge about dance and express their learning in dance education in different ways.

Secondly, this study aims to capture and demonstrate the philosophical practices and issues that promote creative thinking in dance education. This study values the voices of the four participants and their reflections on their practices, and the research methods employed succeeded in capturing this information and analyzing and presenting the data. It is hoped that this study will be useful for future research in dance education. Higher dance students are beginning to reflect more on their practice and realize that there are more critical components of creative thinking in higher dance education.

Thirdly, the study found that the significance of developing creative thinking in dance education is reflected in four main areas. The first part notes the liberation of movement in creative dance, divided into the liberation of body language and the liberation of expression. The second creates the focus and power of student collaboration and learning to communicate to a creative degree the third explains the role of spiritual liberation as creative dance. On the one hand, there is spiritual freedom, on the other hand, there is spiritual support and belonging. Finally, the students' reflections on the development of creative thinking in dance education contribute to the overall development of dance in higher education and the awareness of the important role of dance teachers in higher dance education.

This study suggests that the different meanings of developing creative thinking in dance education are influenced by various aspects that may affect students' expectations of higher dance education. There is still a critical space for university students to think about what it means to develop creative thinking in dance education and to think about how to learn to practice creative thinking in dance education.

Discussions

In the process of integrating dance arts education with the market economy, the first question faced is whether the school produces students who can meet the social and personal needs of the market economy conditions. Both teachers and students offer the opportunity to stimulate and expand the creative process, each with a unique way of looking at the universe. Likewise, each individual has a unique image that is a hotbed for truly original growth. In dance education, the development of creativity on the path of creative thinking is achieved through a pedagogy that maximizes the opportunities for students to practice.

1. Dance movement and the emancipation of the mind

In folk dance education, the learning of the four skills of dance is considered a central element in the dance education of students. Knowledge of the various dance techniques may be more important in table dancers to be flexible and adaptable to the different dance requirements. Dance training is set up for professional dancers to learn specific skills and the practice of these dances can sometimes be influenced by everyday dance training and education.

2. Teamwork and communication

Collaboration and communication become effective tools in dance education when it comes to developing students' creative thinking. The key to collaborative learning is to create a new strength for creative thinking. Group work is a common form of developing a sense of collaboration and spirit in dance, as group members often have their strengths that can contribute to each other's learning.

3. Holistic redevelopment payment of university students

Higher dance education is an evolving body of learning knowledge with real-world values and connections. It marks the development of creative new thinking in dance education and, as such, folk dance places great emphasis on the development of creative thinking in higher dance education.

4. The role of teacher power in the development of creative thinking in university students

Dance education is an orderly process of teaching and learning through the purposeful and planned organization of teaching and learning by teachers and students, and through the instruction of students' professional perceptions and skills to achieve the desired aims. Through this method of teaching, the traditional performance and rigorous disciplinary approach of rote learning are alien to progressive dance education, while a teacher-led dialogue can transform students from passive acceptance to active participation, thus promoting the development of creative thinking in dance education.

Recommendations

In modern society, the development of traditional culture faces great challenges against the backdrop of its collision with modern culture. Teachers' teaching of ethnic folk dance is innovated to enhance students' creativity, to create a consensus in the educational philosophy of the relevant authorities and schools in Yunnan, and to guide and enhance students' ethnic awareness. On this basis, through in-depth analysis and reflection of all the data collected in the field and interview data, the following four points emerged from China's experience of Thailand's development.

1. Developing a consensus that educational philosophy influences students' creativity

Schools and relevant departments should develop a consensus on the philosophy of educators in educating folk dance students with a sense of creativity in dance, and further explore how to introduce teachers' sense of creativity to folk dance students. If schools and relevant departments do not reach a consensus on the cultivation of students' creativity in dance in the education of teachers' sense of innovation in folk dance education, they will not be able to work together to solve problems when they arise for folk dance teachers, and they will not be able to stimulate folk dance teachers' sense of innovation.

2. Strengthen the awareness of protecting cultural assets in schools to enhance students' creativity

As one of the important places for passing on folk culture, schools have advantages that society and families do not have and can complement the shortcomings of society and families in passing on folk culture. Transfer the teachers' creative awareness of folk dance education to the students' dance creations, and actively play the leading role that school leaders and teachers should play.

3. Teachers' innovative awareness of folk dance education to introduce students' dance creations into classroom teaching

4. Cultivate students' awareness of innovation in dance choreography, remove barriers to thinking and get out of thinking misconceptions.

Through scientific and effective classroom training, weaken the intensity of habitual thinking, increase as many thinking angles as possible in the mind, learn to observe life from multiple perspectives, and inspire students' creative motivation to create of using teaching. Students can only gradually improve their creative thinking skills if they keep exploring forward in practical activities.

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