

The Effect of Finland Teaching Model Implementation on Learning Performance on “English for Business” Subject: A Case of Students from Faculty of Business Administration, RMUTT

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บทคัดย่อ - งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลกระทบของการใช้รูปแบบการสอนแบบฟินแลนด์ที่มีต่อผลการเรียนรู้ในรายวิชา "ภาษาอังกฤษเพื่อธุรกิจ" จากกรณีของนักศึกษา คณะบริหารธุรกิจ มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี กลุ่มตัวอย่าง ได้แก่ นักเรียนที่เรียนวิชา "ภาษาอังกฤษเพื่อธุรกิจ" จำนวน 286 คน เก็บข้อมูลโดยใช้แบบสอบถาม การวิเคราะห์ข้อมูลใช้สถิติเชิงพรรณนา ได้แก่ ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และสถิติอนุมาน ได้แก่ การทดสอบความแตกต่างระหว่างค่าเฉลี่ยสองกลุ่มที่เป็นอิสระต่อกัน การวิเคราะห์ความแปรปรวนทางเดียว และการวิเคราะห์สมการถดถอยเชิงเส้นแบบหลายขั้นตอนที่ระดับนัยสำคัญทางสถิติ 0.05 ผลการวิจัย พบว่า นักเรียนที่ศึกษาในระดับชั้นปีที่ต่างกันมีความคิดเห็นเกี่ยวกับผลการเรียนของนักเรียนแตกต่างกัน นอกจากนี้ รูปแบบการสอนของฟินแลนด์ในด้านกิจกรรมการเรียนการสอน ($\beta = 0.373$) ด้านรูปแบบการบรรยาย ($\beta = 0.223$) และด้านบรรยากาศในห้องเรียน ($\beta = 0.192$) มีผลต่อการเรียนรู้ของนักเรียนอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

คำสำคัญ: รูปแบบการสอนแบบฟินแลนด์, ผลการเรียนรู้, รายวิชา "ภาษาอังกฤษเพื่อธุรกิจ", คณะบริหารธุรกิจ, มทร.ธัญบุรี

Abstract — The objectives of this research were studying the effect of Finland teaching model implementation on learning performance on “English for Business” subject: a case of students from the Faculty of Business Administration, Rajamangala University of Technology Thanyaburi (RMUTT). 286 students studying the subject “English for Business” were selected and the data was obtained by employing questionnaire survey. Both descriptive statistics including frequency, percentage, mean and standard deviation and inferential statistics including independent sample t test, One-Way ANOVA and stepwise multiple linear regression at the significance

level of 0.05, were hired to analyze the data. The results revealed that the students with different grade had different opinion towards student’s learning performance. In addition, the Finland teaching model in terms of teaching activities ($\beta = 0.373$), lecture’s style ($\beta = 0.223$) and classroom atmosphere ($\beta = 0.192$) had an effect on student’s learning performance at the statistically significant level as of 0.05.

Keywords - Finland Teaching Model, Learning Performance, English for Business, Faculty of Business Administration, RMUTT

I. INTRODUCTION

In today's world society, the understanding and ability to use the foreign languages is very important and essential [1]. It is an important tool in communication, education, working, culture learning and access in global community. With this, it is unavoidable to mention about English language. English is not the most spoken language in the world; but, it is the most used language in the political, social and business world. Therefore, many institutional organizations including schools, universities, tutorial organizations, have opened the English courses and places it in the basic requirement [2]. The students from the very young in the kindergarten level to the higher educational level need to study. China is one of many countries tries to develop the English learning [3]. And, Thailand is also one of these examples. Nevertheless, there are many students cannot use it as fluently as it should be. Thus, there have been many researchers, having tried to search out the problems and recommend the solution [4,5]. In addition, the parents, adults through the school CEO and teachers work harder in order to find out new ways to enhance the students’ ability in terms of English skills and communication. One of many models of learning English is posted. This is Finland Teaching Model. In fact, the Finland teaching model is not limited to the “English”

subject, it can be applied into many areas of studies including home economics, science, technology, engineering, arts, languages and so forth. The Finland teaching model has a significant result in increasing the learning performance. Therefore, the researcher is interested in studying the effect of Finland teaching model implementation on learning performance. The study selected the “English for Business” subject of the students from Faculty of Business Administration, RMUTT, as the case. The result of the study can be recommended to the other teachers who desire to improve their teaching.

II. OBJECTIVES

With the study of the effect of Finland teaching model implementation on learning performance by using “English for Business” subject as a case, the researcher set the objectives as follows:

1. To study student’s personal factors, Finland teaching model implementation and learning performance.
2. To study effect of Finland teaching model implementation on learning performance.

III. HYPOTHESES

The hypotheses (H) had been written as follows:

- H1: Student with different personal factors (gender, grade, study field, and study year) has different learning performance.
- H2: Finland teaching model has an effect on learning performance.
- H3: Finland teaching model has an effect on students’ understanding.
- H4: Finland teaching model has an effect on students’ behavior.

IV. CONCEPTUAL FRAMEWORK

The conceptual research can be written as follows:

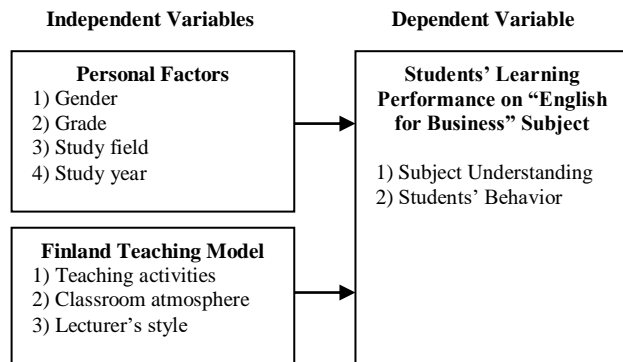


Figure 1. Conceptual framework.

V. LITERATURE REVIEWS

A. Finland Model Teaching

After the Second World War (December, 1939 – September, 1945), Finland is the country that has the quick move in terms of education. The moves of Finland can be divided into 3 periods including 1945-1970, changes from agriculture to industry; 1965-1990, begin of advanced technology and innovation and 1985 to present, the knowledge based economy. The rationale behind the quick move is the united Finnish who desire to move the country forward to the leading country. The education in Finland does not depend on only the teachers, educational academicians, and educational institutes; but, it is for all people and parties. The system of education is based on minimalism describing as “teach less, gain more” through professional learning community, “test less, learn more” through comprehensive evaluation with 3-4 year per time and “no discrimination of diversity” with teaching equally to multiple and diverse races. In terms of developing teachers, the pedagogical thinking skill is promoted in order to train the teachers to gain capability in managing and designing the teaching and classroom. Also, the development system of teacher based on the research-based education linking between theory, research methodology and experience training. Therefore, the teachers will gain research-oriented attitude. Comparing to the GERM (Global Education Reform Movement), the Finish Model can be described as follows [6]:

GERM	Finish Model
School is based on competition	School is based on collaboration
Learning outcome is standardized	Learning outcome is based on learner’s differences
The system focuses on literacy and mathematics	The system focuses on development of learners’ all aspects
Responsibility is based on examination.	Responsibility is based on trust.
Select school to study.	Every school treats equally.

B. Learning Performance

The discussions about the learning of the human has been began earlier and for long time from the Greek philosophers [7] addressing the learning comes from environment-centered to the mind-centered. Alcmaeon, Democritus, and Protagorus held the view that knowledge and learning comes from what the learner sees and observes. However, the point from Aristotle is in contrast that the knowledge and learning comes from ideas, concepts, and reasoning. Furthermore, the learning of the human had been understood through the concept of behaviorist approach, derived from the British Empiricists focusing on the behavioral responses to external stimulus environment [8]. The goal of this concept is to predict and

control the learning behavior. The other concepts inclusive to the stimulate learning are cognitive learning which the learners are active in processing and manipulating the information and the self-directed learning which the learner should involve in learning to promote the self-learning [9]. In addition, the theory of schema is also important. The schema theory concentrated on learner with different background that can influence the interpretation of knowledge [10].

Learning performance is the concept that has been developed for academic environment to trace the academic capability of learners receiving academic development. This concept is based on goal attainment oriented and relates goal attainment to academic attainment [11]. The “learning outcomes” concept is been much interest [12]. It is the expected outcome or success of the course, or achievement of the objectives of the organization, as demonstrated by the level of indicators, such as attitudes, intellectual skills and the knowledge of the students [13]. The “learning outcome” is the part of the behavior, skills and knowledge that students expect to receive and be able to practice after the duration of their studies. The learning outcome will be exist when the measurement, evaluation and assessment are set. The measurement is the determination of indication to indicate the quantity of properties, the nature of any object or event. The evaluation is the judgment of the value and value of the person, event or thing. The assessment is the process of collecting and using information to evaluate the person, object, event or thing of interest. The combination of these indicators can measure and be employed to study the learning performance in this study.

C. *English for Business Subject*

English for Business, 3 credits subject, is taught at the Faculty of Business Administration, Rajamangala University of Technology Thanyaburi (RMUTT). It is required by the Faculty that any field of study needs to study this subject as the required professional subject. This subject has the objectives to provide the students to learn about the meaning and idiom in business communications, reading comprehension for business articles, text books, and reports, and writing business memo, record, and research effectively.

VI. RESEARCH METHODOLOGY

A. *Population and Samples*

Population in this study were students from the Faculty of Business Administration, Rajamangala University of Technology Thanyaburi (RMUTT) and registered to study English for Business during 2016 - 2018. The total number of enrolled students is approximately 867 persons. The samples were of 286 students with the computation [14] at the confident level as of 95%.

B. *Research Tools and Data Collection*

Researcher designed the curriculum both in terms of teaching plan and evaluation criteria. In teaching plan, the

researcher designed 14 weeks for the teaching hours and 2 weeks for examinations. In some of 14 weeks, the researcher used Finland model techniques including usage of the different videos downloaded from YouTube, the learning material printed in English, the flipped classroom by assigning the students to remember the vocabulary and test in the classroom in the following weeks, the utilization of less teacher’s teaching time and more students’ practice time and the evaluation distributed in many weeks and activities (not only test in the mid-term and final term). After the class ended, the researcher gave the students to evaluate the teaching by using the survey questionnaires.

In data collection, the researcher used close-ended survey questionnaires divided into 3 parts. The first part consisted of check-list questions asking about the personal factors including gender, grade, field of study, and year of study. The second part consisted of rating scale questions (1-5 Likert scale) asking about teaching activities, classroom atmosphere and lecture’s style. The third part consisted of rating scale questions (1-5 Likert scale) asking about learning performance in terms of subject understanding and students’ behavior. For data collection, the researcher employed convenience sampling method to distribute the questionnaires. After the questionnaires returned, the researcher inspected the completion and correctness.

C. *Validity and Reliability*

For validity check, the researcher had experts in related fields inspect the accurateness and consistency of contents and questions, and recommend the improvement and edition. For reliability check, the researcher used the Cronbach’s alpha coefficient. Its value was 0.854 for teaching activities, 0.825 for classroom atmosphere, 0.711 for lecture’s style, 0.825 for subject understanding and 0.838 for students’ behavior. These values were acceptable [15]. This meant that the data derived from this survey questionnaire can be proceeded to have further study.

D. *Data Analysis*

Researcher used the descriptive statistics including frequency, percentage, mean and standard deviation and inferential statistics consisting of independent sample t test, One-Way ANOVA and stepwise multiple regression model analysis. In terms of utilization of stepwise multiple regression model analysis, all basic requirements were required and tested [16,17]. Furthermore, the degree of correlation is reported [18].

VII. RESULTS

The study of the effect of Finland teaching model implementation on learning performance on “English for Business” subject: a case of students from faculty of business administration, RMUTT had been conducted and analyzed by using the descriptive and inferential statistics. The details had been portrayed as follows:

A. Study of Respondents' Personal Factors

TABLE I. FREQUENCY AND PERCENTAGE OF STUDENT REGISTERING IN "ENGLISH FOR BUSINESS" SUBJECT

Items	Person (s)	Percentage
<i>Gender</i>		
Male	66	23.1
Female	220	76.9
<i>Grade of "English for Business" Subject</i>		
A Grade	78	27.3
B, B+ Grade	132	46.2
C, C+ Grade	76	26.6
<i>Study Field</i>		
International Program	20	7.0
Management	24	8.4
International Business	88	30.8
Accounting	32	11.2
Marketing	58	20.3
Finance	34	11.9
Information System	26	9.1
Economics	4	1.4
<i>Study Year</i>		
Year 2016	12	4.2
Year 2017	130	45.5
Year 2018	144	50.3
Total	286	100.0

From the study, it found that most of the respondents are female (76.95), obtained B, B+ Grade (46.25), studied in the International Business field (30.85) and studied in Year 2018 (50.3%).

- Study of Finland teaching model implementation

TABLE II. MEAN, STANDARD DEVIATION AND INTERPRETATION OF FINLAND TEACHING MODEL IMPLEMENTATION

Items	Mean	S.D.	Agreeable
<i>TA: Teaching activities</i>			
TA1: Vocabulary remembering	4.24	0.75	Most
TA2: Assignment doing	4.13	0.73	More
TA3: Presentation in English	4.25	0.76	Most
TA4: English translation from news, articles	4.15	0.78	More
TA5: VDO playing	4.03	0.86	More
Overall	4.16	0.62	More
<i>CA: Classroom atmosphere</i>			
CA1: Learning material in English	4.09	0.77	More
CA2: Appropriate time utilization	4.10	0.80	More
CA3: Diverse score distribution	4.19	0.77	More
Overall	4.13	0.67	More
<i>LS: Lecturer's style</i>			
LS1: Teaching English in Thai	4.28	0.70	Most
LS2: Kindness and friendly	4.57	0.71	Most
Overall	4.43	0.62	Most

Items	Mean	S.D.	Agreeable
Overall of Finland teaching model implementation	4.23	0.58	Most

From the study, it found that the overall of Finland teaching model implementation was rated in the "most agreeable" level with mean score as of 4.23. When considering into each dimensions, the lecturer's style was given the highest score (mean = 4.43), followed by the teaching activities (mean = 4.16) and the classroom atmosphere (mean = 4.13).

- Study of students' learning performance on "English for Business" subject

TABLE III. MEAN, STANDARD DEVIATION AND INTERPRETATION OF STUDENTS' LEARNING PERFORMANCE ON "ENGLISH FOR BUSINESS" SUBJECT

Items	Mean	S.D.	Agreeable
<i>Students' Understanding</i>			
SU1: Understanding more English	3.99	0.75	More
SU2: Knowing more vocabulary	4.17	0.75	More
SU3: Being able to individually continue learning	3.96	0.80	More
Overall	4.04	0.67	More
<i>Students' Behavior</i>			
SB1: English is not too hard	3.83	0.74	More
SB2: More self-confident	3.90	0.89	More
SB3: Preference to repeat learning with old lectures.	4.31	0.77	Most
Overall	4.01	0.69	More
Overall of learning performance	4.03	0.66	More

From the study, it found that the overall of learning performance of students was rated in the "more agreeable" level with mean score as of 4.03. When considering into each dimensions, the students' understanding was given the highest score (mean = 4.04), followed by the students' behavior (mean = 4.01).

B. Hypothesis Testing

- Hypothesis 1: Student with different personal factors (gender, grade, study field, and study year) has different learning performance.
 H_0 : Student with different personal factors (gender, grade, study field, and study year) does not have different learning performance.
 H_1 : Student with different personal factors (gender, grade, study field, and study year) has different learning performance.

TABLE IV. RESULT OF INDEPENDENT SAMPLE T-TEST AND ONE-WAY ANOVA OF LEARNING PERFORMANCE CATEGOLISED BY PERSONAL FACTORS

Personal Factors	Learning Performance		Result
	Statistics	Value	
Gender	t	0.992	Failed to reject H ₀
	p-value	0.322	
Grade	F	7.829	Reject H ₀
	p-value	0.000	
Study Field	F	1.736	Failed to reject H ₀
	p-value	0.101	
Study Year	F	0.966	Failed to reject H ₀
	p-value	0.382	

From the study, it found that the student with different grade has the different learning performance because p-value is equal to 0.000, which it is lesser than 0.05. Thus, the study rejected H₀ and accepted H₁. In the meantime, the student with different gender, study field, and study year does not have the different learning performance because p-value is equal to 0.322, 0.101 and 0.382, respectively, which they are higher than 0.05. Therefore, the study failed to reject H₀ and there were insufficient evidence to support H₁.

- Hypothesis 2: Finland teaching model has an effect on learning performance.
 H₀: Finland teaching model does not have an effect on learning performance.
 H₁: Finland teaching model has an effect on learning performance.

TABLE V. STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE EFFECT OF FINLAND TEACHING MODEL ON LEARNING PERFORMANCE

Finland Teaching Model	Learning Performance			t	Sig.
	B	Std. Error	Beta		
(Constant)	.556	.203		2.742	.006
TA	.397	.088	.373	4.536	.000
LS	.235	.065	.223	3.613	.000
CA	.188	.080	.192	2.350	.019
R = 0.727; R ² : = 0.529; Adjusted R ² : = 0.524; S.E.E. = 0.453; Durbin-Watson = 1.831; Sig. = 0.000					

Note: TA, Teaching activities; CA, Classroom atmosphere; LS, Lecturer's style

From the study, it found that the Finland teaching model has an effect on learning performance because the sig value is equal to 0.000, which is lesser than 0.05. Therefore, the study reject H₀ and accepted H₁.

In addition, the model has correlation coefficient (r) as of 0.727, meaning that the Finland teaching model has a high positive relationship with learning performance. The R² is equal to 0.529, meaning that the model can accurately predict the effect of Finland teaching model on learning performance as of 52.9% at the significant as of 0.05. The equation can be written as follows:

$$Y = 0.556 + 0.397(TA) + 0.235(LS) + 0.188(CA)$$

- Hypothesis 3: Finland teaching model has an effect on students' understanding.
 H₀: Finland teaching model does not have an effect on students' understanding.
 H₁: Finland teaching model has an effect on students' understanding.

TABLE VI. STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE EFFECT OF FINLAND TEACHING MODEL ON STUDENTS' UNDERSTANDING.

Finland Teaching Model	Students' Understanding			t	Sig.
	B	Std. Error	Beta		
(Constant)	.630	.214		2.938	.004
TA	.324	.092	.299	3.504	.001
LS	.254	.069	.236	3.694	.000
CA	.227	.084	.227	2.689	.008
R = 0.702; R ² : = 0.492; Adjusted R ² : = 0.487; S.E.E. = 0.479; Durbin-Watson = 1.841; Sig. = 0.000					

Note: TA, Teaching activities; CA, Classroom atmosphere; LS, Lecturer's style

From the study, it found that the Finland teaching model has an effect on students' understanding because the sig value is equal to 0.000, which is lesser than 0.05. Therefore, the study reject H₀ and accepted H₁.

In addition, the model has correlation coefficient (r) as of 0.702, meaning that the Finland teaching model has a high positive relationship with students' understanding. The R² is equal to 0.492, meaning that the model can accurately predict the Finland teaching model on students' understanding as of 49.2% at the significant as of 0.05. The equation can be written as follows:

$$Y = 0.63 + 0.324(TA) + 0.254(LS) + 0.227(CA)$$

- Hypothesis 4: Finland teaching model has an effect on students' behavior.
 H₀: Finland teaching model does not have an effect on students' behavior.
 H₁: Finland teaching model has an effect on students' behavior.

TABLE VII. STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE EFFECT OF FINLAND TEACHING MODEL ON STUDENTS' BEHAVIOR.

Finland Teaching Model	Students' Behavior			t	Sig.
	B	Std. Error	Beta		
(Constant)	.477	.222		2.154	.032
TA	.583	.069	.521	8.483	.000
LS	.250	.068	.225	3.661	.000
R = 0.701; R ² : = 0.491; Adjusted R ² : = 0.487; S.E.E. = 0.495; Durbin-Watson = 1.794; Sig. = 0.000					

Note: TA, Teaching activities; CA, Classroom atmosphere; LS, Lecturer's style

From the study, it found that the Finland teaching model has an effect on students' behavior because the sig value is equal to 0.000, which is lesser than 0.05. Therefore, the study reject H_0 and accepted H_1 .

In addition, the model has correlation coefficient (r) as of 0.701, meaning that the Finland teaching model has a moderate positive relationship with students' behavior. The R^2 is equal to 0.491, meaning that the model can accurately predict the effect of Finland teaching model on students' behavior as of 49.1% at the significant as of 0.05. The equation can be written as follows:

$$Y = .477 + .583(TA) + .250(LS)$$

VIII. DISCUSSION, LIMITATION AND RECOMMENDATION

A. Discussion of the Study

- *Study student's personal factors, Finland teaching model implementation and learning performance*

From the study, it found that the student with different grade has the different learning performance; meanwhile, the student with different gender, study field, and study year does not have the different learning performance because the teaching of this subject has been concentrated on giving the equal chance for the students to learn. The lecturer tries to approach the student and be opened when the students required help [6]. Nevertheless, when considering into the grade of the students, it found that the different grade resulted in different performance because the final result of learning is based on evaluation. In addition, the different ability can generate the learning performance [10].

- *Study effect of Finland teaching model implementation on learning performance*

From the study, it found that the teaching activities including vocabulary remembering; presentation in English, English translation from news, articles; and VDO playing can influence the learning performance because these activities promote the students to deal with the situation with their own abilities. When the students can manage their own time and problem, they will learn more effective [9]. The result also found that the classroom atmosphere can influence the learning performance. This study responds to the theory of behaviorist approach [8]. In this study, the researcher focuses on learning material in English, appropriate time utilization and diverse score distribution. This also matches with the concept of Finland teaching model that "teach less, gain more" and "exam less, and learn more" [6]. In addition, the lecturer's style also important because it has the effect on the learning performance. As it is seen vividly, the lecturer should be opened and welcomed every classroom students' inquiry and questions. During the studying, the students perhaps need some clarification and approaches. In addition, the classroom also needs to keep promoting the knowledge learning environment, for example, teaching English, the lecturer should keep English environment by providing more English material. However, the lecturer needs to be

careful in giving the English material, because sometimes it may give the difficulty for the student when they would like to review the class learning.

B. Limitation of the Study

This study focused on the students who registered in the subject "English for Business" from year 2016 – 2018 to study with author only. Also, the study was conducted only in the Faculty of Business Administration, Rajamangala University of Technology. Therefore, there might be the limitation of the study generalization because different places perhaps have different influential factors. In addition, there was a hard time to collect the data from the students who already graduated. Lastly, the Finland model lists a lot of teaching activities and techniques, but, in this study, a few techniques were employed.

C. Recommendation

- *For Practitioners*

In order to improve the learning performance of "English for Business" subject for the students, the lectures from the Faculty of Business Administration, RMUTT as well as other interested persons from other institutional organizations can apply the following recommendations.

1) The techniques of assigning the students to remember the vocabulary, present works in English, translate some works from English news, articles or book and watch some English VDO or movie can be the choices.

2) The learning material in English, the spending of appropriate time in teaching and the distribution of the score in many activities can be suggested.

3) Using Thai language to teach English subject and be kind and friendly to the students are also recommended.

- *For Future Studies*

1) There should be a study of other personal factors that can also affect the learning performance of the students, for example, the background of the students, students' grade average, social factors, student behaviors and so forth. In addition, there should be also other factors such as external environment, support from the school, so forth.

2) There should be a study of other techniques recommended by the Finland model. The other techniques may give different results towards the student's learning performance.

3) There should be a depth interview with the students in order to gain insight of data which it will be very much advantageous.

4) There should be the extension of the number of the students and study areas, either public university or private university in either Bangkok and metropolitan or far areas, in order to compare the results of the study.

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REFERENCES

- [1] Kachru, B. B. (2006). The English language in the outer circle. *World Englishes*, 3, 241-255.
- [2] Jeon, M., & Lee, J. (2006). Hiring native-speaking English teachers in East Asian countries. *English Today*, 22(4), 53-58.
- [3] Hu, G. (2002). Recent important developments in secondary English-language teaching in the People's Republic of China. *Language Culture and Curriculum*, 15(1), 30-49.
- [4] Vu, N. T., & Burns, A. (2014). English as a medium of instruction: Challenges for Vietnamese tertiary lecturers. *The journal of Asia TEFL*, 11(3), 1-31.
- [5] Copland, F., Garton, S., & Burns, A. (2014). Challenges in teaching English to young learners: Global perspectives and local realities. *Tesol Quarterly*, 48(4), 738-762.
- [6] Areekul, C. (2017). Book Review: *Finish Lessons 2.0*. What can the world learn from educational change in Finland. *Journal of MCU Social Development*, 1(3). 107 – 113.
- [7] Reynolds, R. E., Sinatra, G. M., & Jetton, T. L. (1996). Views of knowledge acquisition and representation: A continuum from experience centered to mind.. *Educational Psychologist*, 31(2), 93-104.
- [8] Paivio, A. (1990). *Mental representations: A dual coding approach*. Oxford University Press.
- [9] Russ-Eft, D. (2011). Towards a meta-theory of learning and performance. *The SAGE handbook of workplace learning*, 120-132.
- [10] Ortony, A., & Rumelhart, D. E. (2017). The Representation of Knowledge in Memory 1. In *Schooling and the acquisition of knowledge* (pp. 99-135). Routledge.
- [11] Taylor, D. S., & Baker, G. A. (2006). The Development of A Theory of Learning Performance: A First Step. *Issues Information Systems*, 7(1). 383-387
- [12] Merchant, Z., Goetz, E. T., Cifuentes, L., Keeney-Kennicutt, W., & Davis, T. J. (2014). Effectiveness of virtual reality-based instruction on students' learning outcomes in K-12 and higher education: A meta-analysis. *Computers & Education*, 70, 29-40.
- [13] Chopra, A. K. (2017). *Dynamics of Structures. Theory and Applications to Earthquake Engineering*.
- [14] Silpcharu, T. (2005). *Research and Data Analysis by SPSS*, 3rd Publish. Bangkok : V InterPrint.
- [15] Hajjar, S. T. (2014). A statistical study to develop a reliable scale to evaluate instructors within higher institution. *WSEAS Transactions on Mathematics*, 13, 885-894
- [16] O'brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673-690.
- [17] Pourhosein, M. R., Kol, A. A. K., Vishkaii, B. M., & Jourshari, F. P. (2017). Investigate the Relationship between Institutional Ownership in Tehran Stock Exchange. *International Journal of Economics and Financial Issues*, 7(3), 276-285.
- [18] Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1988). *Applied statistics for the behavioral sciences*. New York: Houghton Mifflin