



A Study of Teaching Integration English in Classrooms

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Abstract

Due to vocational and educational change resulting from globalization, Thailand has acknowledged the need to prepare its people to cope with the changing world and competition in the global market place. The government also encourage students to acquire knowledge and skills in English, ICT, innovation and integrations to promote life- long learning skills.

The aims of this study were (1) to compare participants' learning achievements before and after learning, (2) to compare participants' participation pre-course and post-course, (3) to compare participants' attitude pre-course and post-course.

This quasi-experimental research method was conducted using a pre-test, post-test design. The participants were 129 fourth year students who were attending at Sisaket Rajabhat University, during semester 2, Academic Year 2015. They were selected by purposive sampling. They were enrolled in courses Development and Evaluating Teaching Innovation and Seminar in Education. The tools of the study were English language achievement pre-test, post-test, classroom observation checklists and attitude questionnaire.

The study has found that the comparison of participants' English learning achievement after learning was higher than before learning significantly different at 0.05 levels. Participants' participation post-course was significantly different from pre-course at 0.05 levels. This research has revealed participants' attitude toward Integrative Learning English post-course was significantly different from pre-course at 0.05 levels.

Keywords: Attitude, Communication, English, Integration, participation



1. Introduction

Glocalization use English as international language, that why it is necessary for Thai as a member of Asian organization and several world organizations. Therefore, Thai officers, lecturers, teachers, businessmen, people also students are aware of get better in communicative in English skills. Anyway, there are various barriers through English learning achievement such as budget, time, learners, teachers, places and learning materials, cultures, traditional learning methods, technology, infrastructure and mother language (Wisit, 201 ,5P65 .; Mann, 2008).

Researchers found that in general Thai students and most of Thai people couldn't communicated fluently English because they surrounding without English native speakers. In addition, they did not use English in daylily life conversation even in class room. Furthermore, mostly Thai students learn English to pass the test, to get a good grade, to enter to the University, and to get a job Thai learn grammar for examination rather than learn English for communication in class, at home, at work or in Thai society)Suwanbenjakul,2002 , P.7; Tantrakul,2000 , P. 12 ; Wiriyaichitra, ,2010P. 11).

Mostly Thai learn English from direct method teaching that teach kids to remember words more than communicative approach which teach kids to communicates, to create words, phrases, sentences and interaction. All these elements affected the fluency and accuracy using English of Thai kids

)Somjai, 2020, P. 640(.Thai educational system has identified the challenges ahead, which need to be overcome to make students ready for participation in the global marketplace and that doing so requires further education reform (Sonchai,2 004 ,P(27 ..

According to the Faculty of Education, Sisaket Rajabhat University students' background knowledge survey, their English are average and they need to improve their English skills because they will be the future teachers who teach the future kids in the digital world soon. Therefore, participant was chosen using purposive sampling from 4th year English major students who were in the 2nd/2015 semester. Participants enrolled in courses Development and Evaluating Teaching Innovation and Seminar in Education. They were English major students whom were taught integration two courses to learn Google Workspace Tools to create innovations or learning materials such as Google slides, google forms, google classroom, google map, google drive, power point slides, clips, videos etc., and hold the seminar to present their projects. This Integrative Learning may promote students 'communication, interaction, participation and active learning along way of 21st century learning.



1.1 The rationale of the study

In the 21st century, the world is rapidly changing such as technologies, information communication technology (ICT) and devices speedily develops and these effected the world's economics, education, communication, travelling, science, people's lifestyles and so on (Nunan, 2003). The world is changing even in the developing countries, so teachers, students, educator have to develop their learning and teaching approaches and integrated ICT and technology in their learning process (Tucker, 2007). Researchers found a significant correlation between ICT, attitude, participation and English learning achievement)Tucker, 2007; Campbell ,2015, P. 240(.

Globalisation has converted many students into digital natives; they are much more autonomous when using new technology. Integrative ICTs play a very important role in countries where English is not first language as it provides an opportunity to see language in context, that is, language that native speakers actually use (Nunan, 2003).

Thai educational reform remains a challenge in the Thai educational context and need support from policy makers, through professional development and an expanding role for integrative learning, ICT and communication infrastructures to embrace the future of English language learning and teaching English in Thailand (Bacsich & Salmon, 2010).

To sum up, to improve students English learning achievement, instructor must be aware of the factor that affect students. The learning process should encourage student's aspirations to learn English, to improve their participation, to improve their attitudes toward English. Therefore, the integrative classes may provide them with adequate learning environments.

1.2 Theory

The researcher reviewed the literature related to teaching English as foreign language context which included The Need for Student-Centred Learning, Content and Language Integrated, Integration, The Meaning of Integration, Teaching Integration, Participation and Attitude.

1.2.1 The need for student-centred learning

Thailand's National Education Act 1999 focuses on changes being implemented in a move to a 'learner-centered approach'. It embraces concepts of self-education and life-long education (Prapaisit & Hardison, 2009). Thus, the goal of the learning process is to develop students to their optimal level, in a process in which students' needs and interests are primary (Anand, 2015).A There are two key components of the learner-centered classroom: firstly, placing more responsibility in the hands of the students to manage their own learning, and secondly, instructors provide the role of facilitators of knowledge to help students to find out how to learn, rather than being the source of knowledge (Albirini, 2006; Nonkukhetkhong, 2006; Campbell, 2015, P.35)



1.2.2 Content and Language Integrated

Content and Language Integrated Learning has become the term describing both learning content subject through the medium of a foreign language and learning a foreign language by studying a content-based subject. English is integrated into the broad curriculum. Knowledge of the language becomes the means of learning content. Fluency is more important than accuracy and errors are a natural part of language learning. Learners develop fluency in English by using English to communicate for a variety of purpose (Jia, Ding, Chen, & Cui, 2014).

1.2.3 Integration

Teaching integration involves engage students as active participation in the learning process. Integration creates a practical learning environment where students enter into the realm of integration as active participant more than passive learners. Integrative Learning process provides learners into challenge and opportunities of interactive, communicative, problem solving and learner-centred learning. Integrative process offers students to access to their own opinion, satisfactory, attitude, aptitude, self-awareness which led to self-development) Mark, Gary and Angela, 2009, P. 2).

Integrative Learning developed the learners sustainable autonomous learning skills. It affected learners by using the online communication through social network. It prepared learners into economics and social mechanical into the globalizations. Thus, integration should be assisted learner to meet requirements in updating of the content and enhancing the effective and sustainable learning process (Ololube, (2006).

1.2.4 The Meaning of Integration

Integration is the act of bringing together smaller components into a single system that functions as one. These links usually are established between the components of the process and control layer of each system to promote the free flow of data across (Google Translation).

Integration is the action or process of successfully joining or mixing with a different group of people (Cambridge Dictionary).

Integration is the action or process of combing wo or more things in an effective way (Cambridge Dictionary).

Integration means mixing the several correlations components together (Pimpan, and Payao, 2005).

However. Integration Learning in this study means the teacher combi students who enrolled in two courses; Development and Evaluating Teaching Innovation and Seminar in Education. Then participant was taught to use Google Workspace Tools in Development and Evaluating Teaching Innovation. They were taught to do such as visual presentation, showing video, showing information card, preparing information slide, interaction of the virtual classroom, live lecturing,



google mind map and massaging. Participants hold the seminar to present their teaching innovations in Seminar in Education course (Tucker, 2007). This Integrative Learning expect to promotes students' communicative, interactive and, participate in English through entire courses (Alex, 2018).

1.2.5 Teaching Integration

This study used CIPPA Model to teach Integrative Learning because it is the learners-centered learning and correlated to integration, courses syllabus, courses objectives, and research's aims (Tidsana, 2005, P. 283-284). The principle of CIPPA Model was described in the research of Tanat (2007).

1.C)Construction of Knowledge (Construction of Knowledge means learners create the knowledge by themselves base on Jean Piaget's stage of development reviewd by Ashley & Karen, (2018). His theory of intellectual or cognitive development, is still used today in some branches of education and psychology.

Teachers can help by providing learners with different experiences or ways to explore and experiment with their environments. It's through these experiences that learners may gain understandings of different concepts in a hands-on way. Piaget's philosophy can be incorporated into Integrative Teaching by providing learner with visual aids and other props, like Models, to illustrate different ideas and concepts (Jean, 1963 as cited in Ashley & Karen, (2018).

In this study, participant was taught to use Google Workspace Tools in the Development and Evaluating Teaching Innovation course then they applied it in the Seminar in Education course or in daily life situations (Tucker, 2007). This study used these CIPPA Model in teaching integration classes. The class was learners-centered learning, the seminar used simulation with role play and presentation on stage. Teacher act as a coach or facilitator and learners take part of their groups' members to do presentation and share their roles each week (Tidsana, 2005, P. 283-284).

1.2.6 Participation

Constructivism is a theory of knowledge and learning which holds that knowledge is not transmitted by the instructor to the students but rather, the instructor helps the students to construct their own meaning (Nicolson, Murphy & Southgate, 2011; Zou, 2011). The primacy of individual function and meaning is the most important epistemological assumption of constructivism (Pandian, 2001). Constructivism can be applied to online learning environments using three interacting domains of knowledge construction: conceptualisation, representation and use (Mann, 2008). People make sense out of whatever they experience by constructing their own meaning based on what they already know, and how they perceive and view information (Wiriyachitra, 2001). From this perspective, instructors should try to create classroom conditions in which students actively construct their own learning (Wedell & Malderez, 2013).



1.2.7 Attitude

Attitude is our subconscious nature. It controls almost 90% of what we do every day (Best, 2007). Attitude is our habit of thought; “*In the educational milieu attitudes are important because they can predict behaviour if they are measured properly*” (Liu, 2009, P. 101). Several studies have confirmed this statement in relation to foreign language learning. Individuals who have positive attitudes towards the target language are likely to have good learning behaviours (Wudthayagorn, 2000). Having a positive attitude is critical to success and the best way to change attitude is to change input (Poturkovic, 2007). It appears from the literature that student’s motivation was significant factor for students’ achievement (Shin & Gamon, 2001).

It is claimed that attitudes directly influence motivation, and that motivation directly influences language achievement (Shin & Gamon, 2001). Based on theories about the language learning process, it can be seen that attitude is socially and psychologically complex, and is influenced by several variables. Attitudes in a language context can be feelings or emotional reactions towards language learning situations; therefore, attitude is important and influences students’ overall outlooks towards language and culture. Consequently, in the teaching of English in Thailand, it seems that a positive attitude might significantly encourage students to learn because their own attitude and their sense of fulfilment may rely on their achievements. With this in mind, a goal of this research is to investigate the potentials of BL to support more effective teaching and learning practices and the impact of interpersonal attitudes on learning outcomes of students (Zhang, Shelley & Heshan, 2008).

1.3 Related Literature Review

This research studied the case of Tanat (2007) found integration teaching helps learners grown up. Learners can apply knowledge in real life, well participate, get along with other in society, flexible and autonomise learning as a lifelong learning. These finding related to others researchers such as Sonchai2) ,004 ,P (138 .Mark et al., (2009, P. 2).

Previous studies found attitude related to learning achievement (Campbell, 2015, P.261). Thus, teacher should aware of learners’ attitude, participation and satisfaction in their learning process. At some point, teaching integration may become one of several solutions to the implementation of Thailand’s education reform (Zhang, 2008).

1.4 Objectives of the study

There were three aims of this study.

1. To compare participants’ learning achievements before and after learning.
2. To compare participants’ participation pre-course and post-course.
3. To compare participants’ attitude pre-course and post-course.



1.5 Researcher Questions

There were three questions for this study.

1. Does participants' learning achievements pre-test differ from post-test?
2. Dose participants' participation pre-course differ from post-course?
3. Does participants' attitude pre-course differ from post-course?

1.6 Researcher Hypothesis

1. Participants' learning achievements pre-test differ from post-test.
2. Participants' participation pre-course differ from post-course.
3. Participants' attitude pre-course differ from post-course.

2. Method

This research's methodology was a quasi-experimental research designed. There were 129 participants used purposive sampling from 4th year English major students in Sisaket Rajabhat University which enrolled in the 2nd/ 2015 semester. Participants enrolled in courses Development and Evaluating Teaching Innovation and Seminar in Education. Participant was taught to use Google Workspace Tools in Development and Evaluating Teaching Innovation (Tucker, 2007). They were taught to do such as visual presentation, showing video, showing information card, preparing information slide, interaction of the virtual classroom, live lecturing, google mind map and massaging. Participants hold the seminar to present their teaching innovations in Seminar in Education course (Pethrod & Chamnipran, 2004).

The research instrument was TOEIC standardized tests conducted to investigate participants English language achievement pre-test and post-test for this study. The participants sat for the 60 items pre-test before the course began. The 60 items post-test was conducted after the course. The data was collected from pre-test and post-test.

Classroom observation checklists were undertaken during the 16 weeks semester. The behaviour of all students was observed pre-course and post-course of Integration Learning classes. There were 10 assessment items in the checklist, and for each item the following rating scale was applied: (5) always, (4) often, (3) sometime, (2) occasionally, (1) never (Pallant, 2011).

A satisfactory questionnaire completed at the end of the semester was a survey checklist which used a Likert Scale questionnaire. Students were asked to read 7 statements and then indicate their opinion toward the notion rose using the Likert Scale as follows: (5) strongly agree, (4) agree, (3) neutral, (2) disagree (1) strongly disagree. The data was analysed using SPSS version 18.0 to find descriptive statistics (Pallant, 2011).



2.1 The Methodology

This study was a quasi-experimental research designed (Pethrod & Chamnipran, 2004). This study collected data from the pre-test, post-test, classroom observation checklists and attitude questionnaires. TOEIC standardized test was used for this study because it is accepted and trusted by 14,000+ organizations in more than 160 countries, the TOEIC tests assess English-language proficiency across all four language skills needed to succeed in the global workplace. The participant sat for the pre-test before the course began, the post-test was conducted after the course (Suwat, Todsawat & Brian, 2021).

Classes were observed from the beginning to the end. The classroom observation checklist was completed pre-course and post-course (Yook-Hea, 2010). In addition, Field note as blank space for suggestions was used to examine participants' opinions regarding an effectiveness of Integration Learning and participation in English classroom. However, there was only one observer and this may be a potential source of observer bias (Pethrod & Chamnipran, 2004). The checklist data was analysed using SPSS version 18.0 to find mean score (Pallant, 2011).

Attitude questionnaire completed at the beginning and the end of the semester which was a survey checklist which used a Likert Scale questionnaire. The quasi-experimental research design was developed and guided by the work of Wiersma & Jurs (2009).

2.2 Participants

Participants were 2 classes of 9 males, 120 females, total 129 students whom were attending at Sisaket Rajabhat University. They were chosen using purposive sampling from 4th year English major students who were in the 2nd/2015 semester. Participants enrolled in courses Development and Evaluating Teaching Innovation and Seminar in Education.

2.3 Variables

There were two main types of variables: Independent variable was the Teaching Integration to practice communicative English in classroom. The other dependent variables were participants' learning achievement, participants' participation and participants' attitude toward integration learning (Wiersma & Jurs, 2009).

2.4 Research instruments

1. This section presents instruments used in the research. Instruments included pre-test, post-test, classroom observation and attitude questionnaires (Wiersma & Jurs, 2009). The standardized TOEIC test format was chosen for this study in order to be used for pre-test and post-test. The research used contents related to the curriculum which participants were constructed during the study. Initially, prior to commencing the course TOEIC pre-test evaluations of participants was conducted and did it again at the post-course (Pethrod & Chamnipran, 2004). It



was important to test to a standardized TOEIC level regardless of the proficiency of the participants, and to obtain results that revealed the overall improvement in English skills (McMillan, 2008). The researcher explained to the participant that these outcomes would not affect their grades, but the result would be the finding of the research (Wedell & Malderez, 2013; Wiersma & Jurs, 2009).

2. The participants' participation was gathered from classroom observation checklist from pre-course and post-course. There were 10 assessment items in the checklist, and for each item the following rating scale was applied: (5) always, (4) often, (3) sometime, (2) occasionally, (1) never. Classroom observation checklists were examined used Index of item objective congruence (IOC) by three English teachers in Sisaket Rajabhat University (Chaiyong, 2013). There were 10 statements to consider the IOC of the classroom observation was 1 which was above acceptable level set at 0.50 therefore the classroom observation checklists were approved to observe the participants' participation in this study (Wiersma & Jurs, 2009).

3. In order to examine participants' attitude towards integration learning, Likert scales questionnaires were used to survey; (5) strongly agree, (4) agree, (3) natural, (2) disagree, (1) strongly disagree. The attitude questionnaires were used to collect data from the participants to explore participants' opinions about their learning English via Integration Learning (Zhang, Shelly & Heshan, 2008). In addition, there was a blank space to elicit participants' reflection about Integration approach. Participants were asked to compose their own suggestion, or give their freely opinions toward Integration Learning. This was the ways for participants to express their own viewpoint about learning English through Integration Learning (Suwanbenjakul, 2002).

The attitude questionnaires were examined used Index of item objective congruence (IOC) by three English teachers in Sisaket Rajabhat University. There were 7 statements to consider the IOC of the attitude questionnaires was 1 which was above acceptable level set at 0.50 therefore the questionnaires were approved to survey the participants' attitude in this study (Chiyong, 2013; Wiersma & Jurs, 2009).

2.5 Data collection

To do this research the participants had signed the consent forms. The research had an ethic approved from the dean of faculty of education and the director of Sisaket Rajabhat University's Research Department. The research took 16 weeks for participants to learn integration.

The participants' learning achievement data was collected from the TOEIC pre-test and post-test. The participants sat for the pre-test before the course began. The post-test was conducted after the course.

To investigate the participants' participation in classroom activities, the classroom observation lists were used pre-course and post-course. The behavior of all students was observed



during the courses. Three were 10 assessment items in the checklist, and for each item the following rating scale was applied: (5) always, (4) often, (3) sometime, (2) occasionally, (1) never.

The attitude questionnaire completed at the begin and at the end of the semester was a survey checklist, which used a Likert Scale to measure participants' responses. This was a scaling procedure commonly associated with attitude measurement. A graded response was made to each item or statement. In scoring, responses to questions were assigned numerical values and the individual's score was derived from the sum of the numerical values. The attitude questionnaire consisted of seven closed questions and a descriptive rating scale was applied.

There were blank spaces for participants to express their ideas or suggestions. This method was adapted from surveys of learner attitudes instruction developed by Jeon, Debski & Wiggleworth, (2005). Blank spaces were conducted at the end of the course with the 129 participants. To report the results from participants' view point or suggestions, the percentages of respondents giving the most common responses were used (Wiersma & Jurs, 2009).

2.6 Data Analysis

The data obtained using the different methods were analysed and interpreted using quantitative analysis. Analysis of the quantitative data obtained from pre-test and post-test results was used to examine the learning achievements of participants. The SPSS for Windows, Version 18 (Pallant, 2011). software was used for the analysis. The participants' participation was gathered from classroom observation checklist. The participants' attitude was collected from a survey attitude questionnaire. The statistics to explore participants' attitude towards Integration Learning English was descriptive; Mean, Percentage and Standard Deviation (Siljaru, 2012).

Learning achievement

This study involved a pre-test and post-test comparison. The statistics to compare participants' learning achievements before and after learning English was t-test.

Participants' Participation

The result of participants' participation in Integration Learning was collected by classroom observation check list. The statistics to analysed participants' participation in their Integration Learning was One Sample Test (Siljaru, 2012).

Participants' attitude toward integration learning

The result of participants' attitude towards Integration Learning was collected by pre-course and post-course attitude survey. The statistics to analysed participants' attitude towards their Integration Learning was One Sample Test (Siljaru, 2012).

3. Results

The participants sat for the 60 items pre-test before the course began. The 60 items post-test was conducted after the course. This study involved a pre-test and post-test comparison. The statistics to compare participants' learning achievements before and after learning English was t-test (Pallant, 2011). The result was presented in table 1.

Table1. Pre-test and Post-test Score

Test	N	\bar{X}	S.D.
Pair 1 Pre-test	129	12.76	7.46
Post-test	129	50.17	13.53

The analysis revealed the post-test scores (\bar{x} =50.17, S.D.=13.53), the pre-test scores (\bar{x} =12.76, S.D.=7.46).

Table 2. Comparison of Pre-test and Post-test Score

Test	\bar{X}	Df	Sig)2-tailed(
Pair 1 Pre-test-Post-test	-31.792	128	0.000*

*Significant at 0.05 level.

The analysis revealed the post-test scores (\bar{x} =50.17, S.D.=13.53) were significantly higher than the pre-test scores (\bar{x} =12.76, S.D.=7.46) t =-31.792, p < 0.05, α = 0.05. The data described in Table 2 established a significant higher different between pre-test and post-test scores at 0.05 level.

3.2 Participants' Participation

During the 16-week semester, a classroom observation of Integration Learning was performed. A classroom checklist was utilised to gather data and interpreted as following:

4.5-5.00 = always

3.5-4.49 = often

2.5-3.49 = sometime

1.5-2.49 = occasionally

1.0-1.49 = never

Table3. Participants’ Participation in Pre-course and Post-course (One-Sample Statistic)

Participation	N	Mean	S.D.
Pre-course	129	2.40	0.45
Post-course	129	3.77	0.55

As a resort in Table 3, participants’ participation in Integration Learning classes at the beginning of the course was at $\bar{X}=2.40$ which mean they occasionally participate in class activities. These resorts suggest that at the end of the course participants’ participation in Integration Learning class was at $\bar{X}=3.77$ which mean they often participate in classes’ activities.

Table 4. Comparison of Participants’ Participation in Pre-course and Post-course Score

(One Sample test)

Participation	t	Df	Sig. (2- tailed)
Pre-course	60.69	128	.000*
Post-course	78.01	128	.000*

*Significant at the 0.05level (2- tailed)

The comparison reveals that participants’ participation significantly different between pre-course and post- course at the 0.05 level.

3.3 Participants’ Attitude towards Integration Learning.

The analysis of participants’ attitude towards Integration Learning used 1-5 rating scales to survey the participants’ opinion. The statistics to explore participants’ attitude towards the



Integration Learning was One-Sample Statistic. A satisfactory survey was conducted pre-course and post-course (Pallant, 2011). A questionnaire was utilised to gather data about participants’ attitude toward integration Learning which interpreted as following:

4.5-5.00 = strongly agree/ strongly satisfied

3.5-4.49 = agree/ satisfied

2.5-3.49 = neutral

1.5-2.49 = disagree/ dissatisfied

1.0-1.49 = strongly disagree/ strongly dissatisfied

Table5. Participants’ Attitude towards Integration Learning Pre-course and Post-course (One-Sample Statistic)

Participants’ attitude	N	Mean	S.D.
Total pre- attitude	129	2.68	0.71
Total post- attitude	129	4.10	0.48

These outcomes in Table 5 verify that participants satisfied of Integration Learning classes at the beginning of the course at $\bar{X} = 2.68$ which mean they neutral of Integration Learning activities. However, these resorts also suggest that at the end of the course participants satisfied of Integration Learning activities at $\bar{X} = 4.10$.

Table 6. Comparison of Participants’ attitude towards Integration Learning.

(One Sample Test)

Participants’ attitude	t	Df	Sig. (2- tailed)
Total pre- attitude	42.59	128	.000*
Total post- attitude	97.30	128	.000*

*Significant at the 0.05level. (2- tailed)

The comparison reveals that participants’ attitude significantly different between pre-course and post-course at the 0.05 levels.

4. Discussion and Conclusion

This study explored the use of the Teaching Integration English and examined the participants’ English learning achievement, participation and attitude. The first research question was whether participants’ learning achievement before learning English differ from after learning English? The finding established a significant different between pre-test and post-test scores at 0.05 level. The finding is accepted the research hypothesis which participants’ learning achievement before learning English differed from after learning English. Participants’ learning achievement after learning English was higher than before learning English.

This finding was supported from others studies who found communicative approach improved learners’ leaning achievement, (Best, 2007and Howison, 2010) Teaching integration can be successful in enhancing the learning of English and other contents. The finding related to the former studies of and Sanprasert, 2010). The use of the communicative approach motivated learners to use English in classroom as a daily routine. Learners enjoy learning, have fun because they didn’t worry about strictly grammar but focus on understanding the contents, participation, interaction and communication (Nonkukhetkhong, 2006; Alex, 2018).

The second research question was whether participants’ participation pre-course differ from post-course? The finding established a significant different between pre-course and post-course at 0.05 level. The finding is accepted the research hypothesis which participants’ participation before Integrative Learning English differed from after learning English. Participants’ participation post-course was higher than pre-course. This finding was supported from others studies who found technology integration teaching improved learners’ participation)Mark et al., 2009).



The third research question was whether participants' attitude pre-course differ from post-course? The finding established a significant different between pre-course and post-course at 0.05 level. The finding is accepted the research hypothesis which participants' attitude before Integrative Learning English differed from after Integrative Learning English. Participants' attitude post-course was higher than pre-course. This finding was supported from others studies who found integration teaching improved learners' attitude (Albirini, 2006; Ynut, Huseyin and Elanur , 2021; Zhang, Shelley & Heshan, 2008).

The suggestions from participants' comments and suggestions illustrated that the majority of participants believed they improved their English communication through the use of integration learning classes and they gain value of autonomise learning (Zou, 2011; Alex, 2018). Some participants stated that they lack of ICT competencies and need more support of ICT training and upgrade technology infrastructure.

Only a few participants considered they had some struggles in producing the language in classroom interaction. However, some participants stated that they experienced difficulties in the integrative learning processes due to the lack of technological knowledge and public speaking especially on their seminar presentation (Na-Songkhla, , 2011 and Best, 2007).

To sum up, this study provided evidence of the potential of the integration courses assisted students overcome language barriers. Participants revealed satisfied with their English interaction related to the study of Mark, et al., (2009, P. 2).

5. The suggestions

This study found some barriers that might affected the research's results and also the suggestions from participants are as following.

1. Students should be trained ICT, Google Workspace Tools or other applications prior to the study because some of participants might be left behind if they lack of ICT or technology competency.
2. Universities should develop their information communication technology (ICT) or technology infrastructure in the whole University's area such as inside and outside the classroom, dormitory to support participants, lecturers and all university's officers to update 21st century learning environment.
3. To promote teaching integration, Thai Universities students should be taught Google Workspace Tools such as visual presentation, google classroom, google meeting, showing video, showing information card, preparing information slide, interaction of the virtual classroom, live lecturing and massaging, zoom, power point recording or others update useful applications.



6. The suggestion for the next research

Future research should focus on how technology integration impacts learners' competency? Also, the researcher can consider what you should do better such as sample size, control group, other subjects, applications, other Web tools, online classroom, or use the participants from other majors.

7. บรรณานุกรม

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