



The Effect of Unit Tests on Language Development

Thinley Wangdi

**A Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Teaching English as an International
Language**

Prince of Songkla University

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I hereby certify that this work has not been accepted in substance for any degree,
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ABSTRACT

The purposes of the present study were to: 1) investigate the impact of frequent assessment in the form of unit test on the midterm and final scores of the learners, 2) examine the relationship between the unit test scores and the midterm and final tests scores, 3) investigate the impact of frequent testing on learners retention ability, and 4) explore the learners' perception on frequent testing. Fifty Thai vocational students were recruited for the study. They were divided into two groups of 25 students each; the experimental and controlled group. A total of ten unit tests following each unit of the course were administered to the participants in the experimental group. Subsequently, feedback was given to the participants on test items. The controlled group neither received any unit tests nor the feedback. Then, both groups were administered the midterm and final tests. Two weeks after the treatment, both groups were administered a retention test. A 50-item questionnaire was also administered to find out participants' perception of frequent testing. A descriptive analysis such as mean, standard deviation and t-value of paired sample t-tests were used to compare the midterm, final and retention mean scores of subject groups. The result of the study showed a significant increase in the midterm, final and retention scores of the experimental group. The scores of the midterm and final tests of the two groups were significantly different at 0.05 level, and at 0.01 for retention. The study also revealed a strong positive relationship between the experimental group's unit test scores and the midterm and final tests scores. In addition, participants in the experimental group gave positive response to frequent testing. In short, there is a positive impact on the performance of students when the frequent assessment is conducted.

Keywords: frequent testing, perception of frequent testing, academic performance

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ตามที่ท่านได้ส่งบทความเรื่อง "The Effect of Frequent Assessment on Language Development" เพื่อพิจารณาจัดพิมพ์เผยแพร่ ในวารสารวิชาการ Veridian E - Journal, Silpakorn University ฉบับ International (Humanities, Social Sciences and Arts) ปีที่ 11 ฉบับที่ 4 เดือนมกราคม - มิถุนายน 2561 นั้น

ในการนี้ บัณฑิตวิทยาลัย มหาวิทยาลัยศิลปากร ขอเรียนให้ทราบว่าบทความดังกล่าวได้ผ่านการพิจารณาจากผู้ทรงคุณวุฒิแล้ว เห็นสมควรให้ตีพิมพ์เผยแพร่ ในวารสารวิชาการ Veridian E - Journal, Silpakorn University ฉบับ International (Humanities, Social Sciences and Arts) ปีที่ 11 ฉบับที่ 4 เดือนมกราคม - มิถุนายน 2561 บัณฑิตวิทยาลัย มหาวิทยาลัยศิลปากร ได้

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CHAPTER 1

1. INTRODUCTION

1.1. Rationale of the Study

Conventionally, an assessment is defined as a process of evaluating students' work to help them pass the enrolled course (Taras, 2005). Assessment is often divided into a formative and summative assessment. Formative assessment is interchangeably used as an assessment *for* learning and summative assessment as an assessment *of* learning (DeLuca & Klinger, 2010). The use of an assessment has become the most common practice in an educational field to help students improve their learning outcome (William, Paul, & Black, 2011). In fact, an earlier researcher pointed out that 'a good teaching without a good assessment is a job only half done' (Maudsley, 1989). The statement appears to be a strong recommendation to the educators of all ages to have assessment included in the course to enhance the quality of teaching and learning.

According to Cilliers, Schuwirth, Adendorff, Herman and Vleuten (2010), assessment is an educational tool that is primarily designed to promote a meaningful learning. It is considered as one of the most influential tools in an educational field. They also highlight the impact of assessment on students' learning process, believing that assessment provides extrinsic motivation and enables students to study more. A similar claim was made on students' change in efforts and dedications towards learning after the conduct of assessment (Van Etten, Freebern, & Pressley, 1997). Thus, the positive impacts of assessment on students and how it contributes to students' learning process has been emphasized in various quarters (Segers & Dochy, 2006).

Testing is one of many assessments which are used by teachers. Testing is defined as a process of incorporating the test within the course (McDaniel, Anderson, Derbish & Morrisette, 2007). Tests are commonly used by the teachers to assess and help promote the classroom materials and learners' retention ability (Brown, 2005; Karpicke & Roediger, 2007). The number of tests conducted in a school, however, differs from institution to institution based on their own beliefs. Some institutions believe that more tests yield better results (William et al., 2011) while others think a test alone has a small role in the student's performance (Haberyan, 2003).

The effect of testing is *defined* as the resultant impacts on teaching and learning behaviour caused by the periodic tests in the classroom (Alderson & Wall, 1993; Bailey, 1996; Ghorbani, 2017). The effect of testing is widely interpreted as either ‘backwash’ or ‘washback’. Backwash in general education and washback in the field of language teaching. It can be either positive or negative (Alderson & Wall, 1993). In fact, the *effects of testing* have gained a lot of attention from the researchers over the past few decades for its vital role in learning and academic performance of the students (Nguyen & McDaniel, 2014).

Psychological researchers have pointed out that the repeated testing helped students retain the classroom materials in greater quantity since the testing itself involves considerably greater effort to retrieve the materials (Larsen, Butler & Roediger, 2008). Padilla-Walker's (2006) study also emphasized testing and its impact on learners’ learning consistency. The researcher claimed that testing encouraged learners to learn in greater volume. Butler and Roediger (2007) also pointed out that testing enabled learners to improve their long-term retention ability.

In addition, Wooldridge, Bugg, McDaniel, and Liu (2014) showed that testing increased the learner’s accuracy on the materials and helped them to improve their final score. Trumbo, Leiting, McDaniel and Hodge (2016) reported that testing helped students get familiarized with the conceptually related tested materials. They also stressed that testing improves learners’ learning performance.

On the grounds that testing brings some positive changes in teaching and learning, the effect of *frequent testing* has received a considerable attention of many researchers and educators for its great contribution towards the students’ academic performance (Nguyen & McDaniel, 2014). It is believed to help students enhance their retention ability (McDaniel et al., 2007) by supplementing students with the additional exposure to the materials used by the teachers in the classroom (Butler & Roediger, 2007a). Karpicke and Roediger (2007) also claimed that frequent testing encourages students to increase their frequency of study by making them revisit the materials periodically.

Moreover, frequent testing had been described as one of the positive components of learning pedagogy as it helps to stimulate and strengthen the instructional processing potency of the students (Jones, 1923). In addition, Leeming (2002) asserted that apart from helping learners to improve their retention ability, frequent testing also lowers their testing anxiety by creating a comfortable environment for the students to attain the conducted tests.

A mastery testing (Bangert-Drowns, Kulik & Kulik, 1991), which is done after periodic intervals of time in the course of instructions to assess students' progress is one of the most commonly used tools by the researchers to study the effect of frequent testing towards the academic performances. Several studies come up with the conclusion that mastery tests which include short quizzes in certain intervals of time, multiple choice questions, short answer questions really have a positive and strong impact towards the final performance of the students. For instance, Gholami and Moghaddam (2013) studied the effect of weekly quiz tests towards students' academic performance and found that the group of students who underwent the weekly quizzes outperformed the group who took only routine examinations. A similar claim was made by Graham (1999) who claimed that the students who received quizzes during the course could perform better than the group who received no quiz in their final examination. Furthermore, Nguyen and McDaniel (2014) claimed that quizzes, if done aptly, are positively influential to the students learning performance.

However, in spite of having huge claims made on the benefits of frequent testing towards the students' academic performance by those scholars who are in favor of frequent testing, there are few scholars who criticize a frequent testing as a cause of poor quality of education, since it directs students' efforts more towards the test performance or test score in lieu of learning (Karpicke & Roediger, 2007). In addition, Haberyan (2003) found no significant difference between the group who took weekly quizzes with that of students with no quizzes.

Furthermore, Noll (1939) asserted that the effect of frequent testing has been always a double-edged sword which is still inconclusive. In fact, the concept of the effect of frequent testing on students' performance is agreeable if viewed from the point of the researchers who have claimed a frequent testing as a productive tool which is

associated with the achievement of students' education performance, but the results passed by experts within in relation to this are still not robust due to uncommon claims and evidence.

On top of that, most of the previous studies on the effect of frequent testing have focused only on a weekly and monthly test and moreover, it was found that the students' retention ability was measured without concerning much on the content of the conducted test. Consequently, most of the previous studies failed to counterbalance the weight of the content of each test. However, the proposed study will be well counterbalanced in terms of the content of the test materials. The test will be conducted after the completion of each unit of the course; cutting down the chance of content retention bias in the latter section of the study. Furthermore, the current study will also investigate the participants' perception of the frequent testing, so that the educators have clear and pertinent information about the effects of frequent testing.

As discussed so far, although there are many previous studies on the effect of frequent testing on students' performance, the findings are still inconclusive. In addition, there was no study that looks at the interrelationship between frequent testing and students' final performance in Thailand.

1.2. Purposes of the Study

1. To investigate the effect of unit tests on students' vocabulary and grammar performance.
2. To investigate the relationship between the unit tests scores and students final score in vocabulary and grammar.
3. To compare the performance of vocabulary and grammar parts between the participants who receive frequent testing and those who do not.
4. To investigate participants' perceptions towards frequent testing
5. To investigate the effects of frequent testing on participants' retention of vocabulary and grammar knowledge.

1.3. Research Questions

1. Is there any difference in performance in the midterm and final scores of the participants who receive frequent tests and those who do not?
2. Is there any relationship between the students' vocabulary and grammar unit test scores with their midterm and final scores?
3. Is there any significant difference in retention of vocabulary and grammar between the participants who receive frequent testing and those who do not?
4. To what extent do the students acknowledge the positive effects of the frequent testing?

CHAPTER 2

2. LITERATURE REVIEW

2.1. Formative and Summative Assessment

Formative assessment is an evaluation technique used by teachers to evaluate teaching materials and students' learning progress, particularly focused on the improvement of the students learning outcome through a series of feedback (Andersson & Palm, 2017). However, the definition of formative assessment is still inconsistent. Some authors claim that formative assessment is a mere classroom assessment (Brookhart, 2001). Nonetheless, the use of formative assessment is always believed to play a vital role in enhancing the students' learning ability since it enables students to evaluate their own progress of learning (McDowell, Wakelin, Montgomery, & King, 2011).

Formative assessment is beneficial in other aspects as well. It is believed that formative assessment helps students improve their cognitive intelligence which fills in as the main impetus to enhance their summative performance (Cauley & McMillan, 2010; Krasne, Wimmers, Relan, & Drake, 2006). Also, a wide range of previous studies have claimed that the use of any developmental activities (formative assessments)

during the course significantly improve the students' final summative performance (e.g., Andersson & Palm, 2017; Krasne et al., 2006; Nguyen & McDaniel, 2014).

Most importantly, Hill, Guinea, and McCarthy (1994) emphasize the fact that students extensively feel the need of having a frequent formative assessment in the course. They reported that 89% of the students who were participating in their study acknowledged the advantage of frequent formative assessment because it enabled them to improve their learning strategy.

Over the last few decades, many studies have been done on the impact of formative assessment on students' final performance (Cauley & McMillan, 2010; Hill, Guinea, & McCarthy, 1994). For instance, William, Lee, Harrison, and Black (2004) investigated the effectiveness of the formative assessment on students' final performance. They claimed that the formative assessment during the course could improve the performance of students by 60 per cent more than their actual ability. Moreover, Nguyen and McDaniel (2014) reported that frequent formative assessment helped students improve their final summative assessment. In addition, Roediger and Louis (2014) and Butler and Roediger (2007) also claimed that frequent assessment in the classroom could improve students' retention of the learned materials and their retention ability. Nevertheless, a recent study of William et al. (2011) showed that the degree of effectiveness of the formative assessment depended on the frequency of the intervention or assessment during the course.

On the other hand, *summative assessment* is defined as a process of summing up the records of students to learn his/her overall achievement of the course. It is basically carried out at certain intervals when students' achievement has to be reported (Harlen & James, 1997). Summative assessment serves as a reliable evidence to the students' learning achievement since the students are assessed based on the common specified goals and criteria by the institutions (P. T. Knight, 2002). Unlike formative assessment which is intended to improve students' learning, summative assessment is more of summing-up the scores for grading purposes (Brookhart, 2001).

However, it's not only assessment which helps students learn better. Feedback after the assessment is equally considered as an important tool in the framework of assessment. Feedback on assessment helps students identify learning errors and modify them accordingly (Cauley & McMillan, 2010). Feedback allows students to interpret

their errors and bring change in their learning process (Blackman, 2012; Rushton, 2005). Particularly, immediate feedback after tests plays an important role in learning (Epstein & Brosvic, 2001). Immediate feedback on test materials is effective because it helps students acquire and retain tests materials in higher volume (Epstein et al., 2002). Feedback also help students understand and detect the error of the learned materials, which they can alter and learn to improve their final examination performance (Bangert-Drowns, Kulik, Kulik, & Morgan, 1991).

2.2. Test Anxiety

Anxiety is an emotional reaction caused by the distasteful feelings of inhibition, stress, and nervousness by learners due to the activation of the nervous system while in the evaluative state (Guida & Ludlow, 1989). Test anxiety and its effect towards the students' academic performances have been studied by several scholars for the past seven decades (Chin, Williams, Taylor & Harvey, 2017).

Facilitative and *debilitative* anxieties are the most common subjects in an educational field. Facilitative anxiety is an anxiety felt by an individual before performing any of the tasks and its resultant outcome is firmly positive for the individual, whereas debilitative anxiety is an interfering anxiety felt by the person while he/she is in action, and it negatively affects the individual performance (Kalkbrenner & Hernández, 2017).

It has come to the light that the students with high test anxiety are mostly expected to score low compared to those with low test anxiety (Cassady & Johnson, 2002). A study conducted by DordiNejad et al. (2011) on the impact of test anxiety on students' academic performance shows that students can be affected negatively. The students with high test anxiety always appeared to be a low scorer in the class.

Similarly, Leeming (2002) posited that frequent testing helped lower students' testing anxiety by creating a comfortable environment for the students to attain the given tests. This lowered level of debilitative test anxiety helped learners improve their test performance (Ghorbani, 2017). In fact, Cassady and Johnson (2002) affirmed that higher debilitative test anxiety which learners experience when in the evaluative state adversely affects the test scores of the learners.

2.3. Frequent Testing and Retention

Frequent testing has been defined and interpreted in numerous ways by different scholars based on the conduct of the test and allotted time intervals for the tests (Gholami & Moghaddam, 2013). For instance, according to Kling, McCorkle, Miller and Reardon (2005), frequent testing is a test which is administered on a monthly basis, whereas earlier researchers have defined it as a routine examination done to assess students on a weekly (Keys, 1934) and daily basis (Dineen, Taylor & Stephens, 1989). The most common tools used in frequent assessment are short quizzes (e.g. multiple choice questions, gap-filling, and short answer questions). These tools are integrated into the courses to help students master the learned materials for the final examination (McDaniel, Anderson, Derbish & Morrisette, 2007).

Frequent testing has been the primary choice for the educators since it helps students know one's own learning progress (Keys, 1934; McDowell et al. 2011). Moreover, testing is a mandatory task in which each individual student must be interested in to qualify the enrolled course, thereby motivating students to learn more than the usual (Brown, 2005). Furthermore, the conduct of frequent testing is believed to improve students' learning consistency as well as students attendance to the class (Wilder, Flood, & Stromsnes, 2001).

In addition, McDaniel et al. (2007) reported that incorporating frequent tests in the course helps students remember the classroom materials in higher volume. Since testing allows students to have an additional exposure to the materials (Butler & Roediger, 2007a). Frequent testing also encourages students to increase their frequency of study by making them revise materials periodically for the test (Karpicke & Roediger, 2007).

Trumbo, Leiting, McDaniel, and Hodge (2016) and Leeming (2002) assert that frequent testing not only helps students to improve their retention of materials but it also helps students to lower their testing anxiety by familiarizing them with both tested and non-tested content. The impact of test anxiety on students' learning is reported by Cassady and Johnson (2002). They claimed that the test anxiety has a negative impact on students' performance. Their finding shows that the students with

higher level of anxiety scored less compared to those students with a moderate level of test anxiety.

On the flip side, Wooldridge, Bugg, McDaniel, and Liu (2014) expressed reservations about the idea of frequent testing and its positive impacts on higher retention of the classroom materials. They argued that the idea was not applicable unless the tests done during the course and the final examination include the same items. Haberyan (2003) also recounted on having no significant difference between the group with frequent testing and a group without.

In addition, a meta-analysis study by Bangert-Drowns et al. (1991) on the effect of frequent testing in the classroom towards the students' outcome showed that out of 35 studies taken for the analysis, 29 studies claimed that frequent testing relatively had a positive effect on students' outcome whereas the other 6 studies claimed the effects as negative or neutral.

2.4. Vocabulary and Grammar

Vocabulary is one of the essential components in the field of second language acquisition, learners must learn to acquire the vocabulary since it defines the language outcome of the learners (Knight, 1994). Vocabulary is believed to be the heart of language learning (Coady and Huckin, 1997). A good lexical knowledge of the targeted second language enables learners to master the second language and improve their communicative skills (Schmitt, 2008). Additionally, Alqahtani (2015) emphasized that learners can acquire the target language only through learning words. The researcher also suggested that both teachers and students learning foreign languages must understand the essentiality of learning vocabulary to acquire the languages successfully.

Similarly, the syntactic knowledge of the language has been given an additional importance since the early 80s to ease language acquisition. It is believed that with good grammar knowledge the learners can increase their language comprehension skills with an extended output. The grammar is an essential factor to all foreign language learners, for the better and accurate language learning outcome (Pradeep & Debata, 2013).

In addition, it is learnt that learners' inadequate accuracy in the target language in spite of several years of exposure to the target language is because of poor

opportunity to practice it They pointed out that there is a huge intercorrelation between the forms of language and achievement of L2 acquisition (Loewen et al. 2009).

2.5. Related Studies

There are many studies on the effects of formative assessment on students' performance. For instance, William et.al. (2004) investigated the effect of formative assessment practice in the classroom on learners' final achievement. The participants were 35 teachers from different schools in the UK; 21 teachers in the experimental group used formative classroom and 24 teachers in the control group did not. The teachers in the experimental group taught a total of 362 students and those in the control group taught 376 students. Both groups of teachers taught classes for one year in their respective institutions. The result revealed that the students of the experimental groups performed better than the students in the control group. The researchers concluded that formative assessment, in general, helped learners to increase their final grades.

Similarly, Gholami and Moghaddam (2013) explored the impact of the frequent formative assessment of students' final achievement, seventy second-grade high school students participated in the study. The students were divided into two groups and were assessed differently. The experimental group received a weekly quiz and the control group took the only summative assessment, the midterm examination. The result revealed that the scores of the group who took weekly quizzes were significantly higher than those who did not take quizzes.

In addition, Padilla-Walker (2006) examined the impact of daily extra credit quizzes on students' final performance. The participants were 36 undergraduate students of Midwestern State University taking an advanced seminar course. The students met their teacher twice a week and were given extra credit quiz each day. The result of the study revealed that there was a significant improvement in the students' final performance. The finding also suggested that daily quizzes increased students' regularity in learning classroom materials.

Roediger, Agarwal, McDaniel, and McDermott (2011) examined the effect of formative assessment on students' retention. A total of 142 sixth-standard students participated in the study. Students were divided into two groups. The experimental group received a series of classroom assessment (quizzes) and the other group received

none. It was found that the students who received quizzes during the course performed relatively high in their final scores as well as in their retention test compared to the group with no quizzes.

Furthermore, a positive acknowledgement from the participants was reported. Brookhart (2001) investigated the students' perception towards the formative and summative assessment practice in the classroom. Participants for this study were 990 high schools' students in the USA. Almost all participants were academically successful ones. The data were collected through interviews. The result revealed that most of the students felt the importance of assessment in learnings. Since it enabled them to revisit, master and learn the classroom materials in higher frequency. However, the finding could not reveal whether the students preferred formative or summative assessment. It suggested that assessment, in general, is effective in learning and for better learning outcome.

As discussed so far, although there are many previous studies on the effect of frequent testing on students' performance, the findings are still inconclusive. In addition, there was no study that looks at the interrelationship between frequent testing and students' final performance in Thailand. For instance, Roediger and Louis (2014) investigated the relationship between frequent testing and long-term retention with 120 undergraduate students of 18 – 24 year of age. The retention test was done on the reading courses designed specifically for the study. The finding showed that repeated reading relatively improved the participants' ability to remember the reading materials. Also, frequent testing helped improve the final academic performance of individual students.

Butler and Roediger (2007) examined the effect of frequent testing on 27 undergraduates' students and their retention ability. The study was carried out in the simulated classroom settings. The participants were tested on lecture materials in the form of multiple choice questions and short answer questions. Feedback was also provided for the half of the answers on multiple choice questions and short answer questions. The result revealed that the frequent testing on the classroom lecture materials improved the students' retention of the classroom materials.

Furthermore, Carpenter, Pashler and Cepeda (2009) investigated the relationship between the frequent testing and retention ability of the students. A total of 75 8th grade students participated in the study. The participants were assessed on the U.S history *facts*. The *facts* were reviewed in two ways: restudying and through testing. The retention test was administered sixteen weeks after the day of the treatment. The result revealed that students could significantly remember the U.S history facts which were reviewed through testing. The researchers claimed that testing significantly improved the retention ability of students.

In addition, Kromann, Jensen and Ringsted (2009) examined the effect of testing on students' memory of studied materials and their learning outcome. A total of 140 students took part in the study. Both the experimental and control group received a course instruction of 3.5 hours a day. On the same day of the course instruction, the experimental group received a test on the course which lasted for 30 minutes. The control group just received the course instructions but were not given any test. Two weeks later both the experimental and control groups were given a final evaluation test in a simulated classroom setting. The result showed that the experimental group significantly outscored the control group.

However, a study conducted by Wooldridge, Bugg, McDaniel and Liu (2014) found that the frequent testing as a tool to enhance students' retention is not applicable unless the test items are repeated. They claimed that the tests seemed to help students the retention abilities only if the items of retention test and classroom tests are identical. A meta-analysis study by Bangert-Drowns et al. (1991) on the effect of frequent classroom testing on students final performance showed that out of 35 studies taken for the analysis. Twenty-nine studies claimed that frequent testing relatively has a positive effect on the students' outcome whereas the other 6 studies demonstrated a negative or neutral effect.

CHAPTER 3

3. RESEARCH METHODOLOGY

3.1. Population/Participants

The population of the current study were 62 students from two intact classes of 34 students in one class and 28 students in the other. They were second-year certificate students from Songkhla Vocational College in Thailand, taking an English course in their second semester, 2017 academic year with a textbook entitled English for Life, consisting of 10 units.

A sample of 50 participants was chosen from 62 populations. These participants were purposively sampled in order to establish language homogeneity within the participants. The participants were assigned based on their English Grade Point Average (GPA) to the experimental and control group, with 25 students in each group. Both groups were comparable in terms of language proficiency as reflected by their average GPA ($\bar{X} = 2.54$, S.D = 0.71) and ($\bar{X} = 2.56$, S.D = 0.70) for the experimental and control group respectively. The majority of the participants were females, with 42 females and 8 males of 15-17 years of age.

The participants were further divided into high and low proficiency groups based on their GPA. A GPA within the range of 3-4 out of 4 was considered as high proficiency group and 1-2 out of 4 as a low proficiency group. Each proficiency group consisted of 8 high proficiency participants and 8 low ones, a total of 16 out of 25 participants.

3.2. Research Instruments

3.2.1. Unit Test

Ten unit tests used were based on the 10 units of the course textbook, *English for life* (Hutchinson, 2003). Each unit test consisted of 25 items, 15 vocabulary and 10 grammar items. All the items were in the form of gap-filling and matching. The tests were developed by the researcher and checked by three qualified research committee members to establish its validity. The test was administered to the test takers after the completion of each of the 10 units of the course, five unit tests before the midterm and five unit tests after the midterm exam.

3.2.2. Midterm and Final examination

The course's midterm and the final examinations developed and administered by the institution were used to represent the participants' achievement on the course, their final performance on the course. The midterm examination comprised units 1- 5 and the final examination comprised of unit 6 – 10. Both the midterm and final examinations had 40 items of various parts i.e. vocabulary, grammar and reading comprehension, in the form of multiple-choice and gap-filling. Only the vocabulary and grammar parts were used in this study. The midterm examination was administered in the middle of the semester after the completion of units 1 – 5 and the final examinations towards the end of the semester after the completion of units 6 - 10.

3. 2.3. Retention test

The items of the retention test were taken from the midterm and final examinations, 25 items from each. It consisted of 30 vocabulary items,15 from the midterm and 15 from the final, and 20 grammar items, ten from the midterm examination and the other ten from the final examination.

The retention test was used to investigate how much each subject group could retain the materials learned both from the lessons taught before and after the midterm with different retention intervals.

3. 2.4. A questionnaire

A 5 point Likert-scale questionnaire consisting of 15 items ranging from strongly disagree (1) to strongly agree (5) was administered after the treatment to assess the students' perception of the use of frequent testing. The questionnaire was adapted based on (Vaessen et al., 2017). For interpretation, the values 1 to 1.80 indicate "strongly disagree", 1.81 to 2.60 "disagree", 2.61 to 3.40 "Neutral", and 3.41 to 4.20 "agree", 4.21 to 5.00 "highly agree" respectively (Pongvichai, 2008). The level of agreement was further interpreted as "very negative" for strongly disagree, "negative" for disagree, "neutral" for neutral, "positive" for agree and "very positive" for strongly agree.

The questionnaire was divided into two parts: part one included 8 items on the impact of frequent testing and part two included 7 items on test anxiety.

3.3. Data Collection

The study was conducted in the second semester of the 2017 academic year (October 2017- February 2018). The data were collected in the following steps.

1. Both the experimental and control groups were taught 5 units (units 1-5) by the class teacher, the researcher. Both groups received 2 hours' instructional time per week in different class settings. However, the type of assessment received by the two groups was different. The experimental group was given a 20-minute unit test after the completion of each unit of the course. The test participants were informed of their test scores and subsequently, feedback on the test items was given. The control group didn't receive any unit tests.

2. In December after the completion of unit 5, the midterm examination was administered to both the experimental and control group. Also, the attendance of the participants in both groups was recorded for the whole semester.

3. Both groups were taught another 5 units (units 6 – 10) from the same course. The experimental group was administered a 20-minute unit test after each unit of the course. Then, towards the end of the semester, in February after the completion of unit 10, the final examination was administered to both groups for the course evaluation.

4. A questionnaire consisting of 15 items was administered to the experimental group right after the treatment to see the students' perception of frequent testing. The results are described based on the following interval of mean scales (Pongvichai, S., 2008).

Table 1: Interpretation of the 5 Likert scale for the constructs perception

Interpretation	Perception	Mean range
Strongly disagree	Very positive	1.00 – 1.80
Disagree	Positive	1.81 – 2.60
Neutral	Neutral	2.61 – 3.40
Agree	Negative	3.41 – 4.20
Strongly agree	Very negative	4.21 – 5.00

5. Two weeks after the treatment, both groups took the retention test consisting of 50 items on vocabulary and grammar.

3.4. Data Analysis

Data obtained from the midterm, final and retention tests and questionnaire were analyzed and interpreted to answer each research question. Firstly, a descriptive analysis such as mean, standard deviation and t-value of paired sample t-tests were used to describe the participants' performance in the midterm, final and retention tests. Then, the participants' responses to each item in the questionnaire were analyzed for means and standard deviations to determine their perception towards the use of frequent testing in the course.

Pearson correlation coefficient was also used to analyze the relationship between the unit test scores and the midterm and final examination scores.

CHAPTER 4

4. RESULTS

This section contains the results of the study, arranged based on the 2 research questions.

Research Question 1: Is there any difference in performance in the midterm and final scores of the participants who receive frequent tests and those who do not?

To answer the first research question, the participants' scores on the midterm and final examinations were analyzed as shown in Table 2 below.

Table 2: Experimental and control groups' preperformance on the midterm and final examination

Groups	Midterm Scores		Final Scores	
	Total = 25 scores		Total = 25 scores	
	(\bar{x})	S. D	(\bar{x})	S. D
Experimental (n = 25)	14.56	4.50	16.00	4.10
Control (n = 25)	11.88	3.74	13.42	3.70
Difference (D)	2.68*	0.76	2.58*	0.4

* significant at the 0.05 level

As reflected in Table 2, the difference between the average mean scores of both the midterm and final examinations for the experimental group and control group was significantly different ($D = 2.68$ and $D = 2.58$, respectively). The participants' midterm scores analysis showed the average mean scores of 14.56 out of 25 ($S.D = 4.50$) and 11.88 out of 25 ($S.D = 3.74$) for the experimental group and control group respectively. The experimental group who received frequent tests (unit tests) during the course performed significantly higher in the midterm examination than the group with no unit tests. They scored 2.68 higher than the control group.

Similarly, the average mean scores in the final examination of the experimental group was 16.00 out of 25 ($S.D = 4.10$) which was significantly higher than that of the control group with 13.42 out of 25 ($S.D = 3.70$). The average score of the experimental group was 2.58 higher than that of the control group. Interestingly, the experimental group performed consistently better in both the midterm and final examination.

The participants in the experimental group may have performed better due to higher engagement on self-regulated learning required for the frequently administered unit tests. Frequent testing helped attest to their own performance. The participants put more efforts in the next test if their prior performance was poor, realizing that their performance was the results of their own efforts or control. This seemed to help the participants direct to self-regulated learning.

Apart from the fact that frequent testing helped the participants improve their academic performance, data collected on class attendance also showed that unit tests helped increase the class attendance of the participants in the experimental group. The average class attendance of the experimental group and the control group were 93.09% and 81.82% for the whole semester. In addition, the frequent conduct of tests enabled participants in the experimental group to increase their study hours for the assigned course. The average time spent per week on the course reported by 25 participants in the experimental group was almost an hour more than the average time spent by the participants in the control group. The average time spent reported by the control group was low as they revised the materials only before the big tests (i.e. midterm and final examinations).

Research Question 2: Is there any relationship between the students' vocabulary and grammar's unit test scores with their midterm and the final scores?

To investigate the relationship between the unit test scores and the midterm and final examinations scores, the unit tests scores and the midterm and final examinations scores of the 25 participants in the experimental group were taken for analysis. Table 3 shows the relationship between the unit tests scores and the midterm and final examination scores.

Table 3: The relationship between the experimental group's unit tests score and the learning achievement score

	Midterm	Final
Unit Test	.781*	.731*

*significant at 0.05 level

As shown in Table 3, there was a strong correlation between the unit tests scores and the midterm and final examination scores. The correlation analysis between unit tests scores and the midterm and final examinations scores was $r = .781$ and $r = .731$ respectively ($p < 0.05$). Those who scored high in the unit tests also scored high in the midterm score and final score and vice versa.

Research Question 3: Is there any significant difference in retention of vocabulary and grammar between the participants who receive frequent testing and those who do not? The analysis of the overall learning achievement (midterm and final) and the retention performance in vocabulary and grammar of the experimental and control group is presented in Table 4 below.

Table 4: Participant's learning achievement (midterm and final) and the retention performance

	Learning achievement Total score = 50		Retention score Total score = 50		t- value	2-tailed sig.
	Mean (\bar{x})	SD	Mean (\bar{x})	SD		
Experimental (n=25)	30.56	8.60	30.04	9.32	.260	.796
Control (n=25)	25.30	7.44	19.84	6.05	3.765	.001*

* significant at the 0.05 level

As reflected in Table 4, the average mean scores of the overall learning achievement (midterm and final examinations) of the experimental and control groups in vocabulary and grammar are 30.56 and 25.30, respectively. The experimental group who received unit tests significantly outscored the control group who did not receive any unit tests in the course. It is found that the experimental group consistently performed well in both the midterm and final examinations, indicating that frequent testing benefited the participants in the experimental group.

In terms of retention, the experimental group seemed to be able to retain more of the classroom materials they had learned in the semester than the control group. The result shows a significant difference in the mean scores of the retention test. The retention score of the experimental group was 30.04 (SD = 9.32) and that of the control group was 19.84 (SD = 6.05).

Clearly, the overall learning achievement score and the retention score of the experimental group was relatively the same with no statistically significant difference, suggesting that frequent testing helped the participants in the experimental group retain almost all of the classroom materials learned during the semester. On the contrary, a significant decline in the scores is observed for the control group when overall performance (midterm and final scores) was compared with the retention score. They scored lower in the retention test taken 2 weeks after the final examination, indicating their failure to retain the classroom materials they had learned. Their retention score was significantly lower than their overall performance score.

Retention performance of participants in the experimental group with different English proficiency levels

In order to see more details of the effects of frequent testing on retention, a detailed comparison was carried out to see how good the two subject groups retained what they had learned before the midterm and before the final examinations. It should be noted that the retention was given 3 months after the midterm exam and 2 weeks after the final exam. So, it is interesting to see the effects of retention on high and low proficiency participants in both subject groups with two different retention time intervals. The analysis is presented in Table 5.

Table 5: Retention scores with different retention time intervals

		Learning Achievement							
		Midterm Score = 25 (\bar{x})	Retention Score = 25 (\bar{x})	t-value	2- tailed sig.	Final Score = 25 (\bar{x})	Retention Score = 25 (\bar{x})	t-value	2- tailed sig.
Experimental	High (n=8)	18.37	18	.275	.791	19.87	18.38	1.323	.277
	Low (n=8)	12.12	12.05	-.258	.803	14.25	13.75	.342	.743
Control	High (n=8)	15.12	10.75	2.895	.023**	17.12	11.62	3.610	.009*
	Low (n=8)	11.25	6.37	4.754	.002*	12.37	7.87	6.874	.000*

* significant at 0.05 level

**significant at 0.01 level

Another interesting fact in Table 5 is observed. The findings show no significant difference in mean scores for the high and low proficiency participants of the experimental group in their midterm scores when compared to their retention scores. The high group scored 18.37 out of 25 in the midterm and 18 in the retention test, a non-significant decrease of .37 ($18.37 - 18 = .37$). This is the same case with the low group, they scored 12.12 in the midterm and 12.05 in the retention test, again a non-significant decline. Surprisingly, both the high and low proficiency participants managed to retain what they had learned 3 months ago. This seems to suggest that frequent testing enabled participants of both the high and low proficiency groups to remember the materials learned a long time ago.

In addition, it was observed that the final retention scores of the experimental group were relatively high compared to their midterm retention scores. The average scores of the high proficiency group were 18.38 out of 25 for the final retention test and 18 out of 25 for the midterm retention test. Similarly, for the low proficiency group, the average scores were 13.75 and 12.05 out of 25 for the final retention test and midterm retention test respectively. Both groups' final retention test's score was relatively higher than that of the midterm retention tests' score. This could be due to the recency effects determined by the time intervals between the learning achievement tests (both the midterm and final examinations) and retention tests. In the current study, the time interval between the final examination and final retention test was just 3 weeks which was shorter compared to a 3-month time interval between the midterm examination and midterm retention test.

On the other hand, the findings show a significant difference in the mean scores for both the high and low proficiency participants in the control group. Their retention mean scores were significantly lower than their learning achievement test scores. The average mean scores of the high proficiency participants in the midterm and midterm retention were 15.12 and 10.75 out of 25, and that of their finals were 17.12 and 11.62 out of 25. Similarly, the average mean scores of the low proficiency participants in the midterm and midterm retention were 11.25 and 6.37, and that of finals were 12.37 and 7.87. Thus, the result indicates that the participants in the control group who didn't receive unit tests could not retain the materials learned.

Research Question 4: To what extent do the students acknowledge the positive impact of the frequent testing?

Table 6 summarizes the participants' attitudes towards the use of frequent testing in the classroom and its impact on their learning. The first part of the questionnaire aimed at finding how the participants perceive the impact of the frequent testing on their language learning. The second part of the questionnaire aimed at learning the impact of frequent testing on participants' test anxiety.

Table 6: Experimental group's perception of frequent testing after the treatment

Frequent Testing				
Items	(\bar{x})	SD	Levels of agreement	Interpretation
7. After knowing my grades for unit tests in the course, I started studying more.	4.30	.70	Strongly Agree	Very Positive
8. I felt confident with the course when I was informed of my scores of unit tests.	4.74	.68	Strongly Agree	
1. I need unit tests in the course to study regularly.	4.17	.83	Agree	Positive
2. I need unit tests in the course to be motivated.	4.00	.73	Agree	
4. I want my teachers to give us unit tests before midterm and final examinations.	4.04	.82	Agree	
5. Without frequent tests, I would have studied less during the course.	3.48	1.08	Agree	
*3. I think a unit test during the course is a waste of time.	2.69	1.22	Neutral	Neutral
*6. I think frequent testing did not help us prepare for the midterm and final examination.	2.91	1.04	Neutral	
Total	3.79	.88	Agree	Positive

Test Anxiety				
*10. I felt nervous when I took the midterm/final examinations.	2.08	.94	Disagree	Negative
*11. Frequent tests during the course are stressful.	2.08	.94	Disagree	
*12. Before the unit test, I felt anxious.	2.43	.94	Disagree	
*13. Before the midterm and final examinations, I feel anxious.	2.08	.90	Disagree	
9. My test anxiety was reduced because I was given frequent tests during the course.	3.87	.86	Agree	Positive
14. Before the midterm and final examinations, I feel confident that I will pass the tests.	3.65	1.02	Agree	
15. I think I can pass the midterm and final examination with better scores.	3.74	.81	Agree	
Total	2.84	.91	Neutral	Neutral

*negative items adjusted

The first part of Table 6 shows that the participants *agreed* to the positive impacts of the use of frequent tests ($\bar{x} = 3.79$, $SD = .88$) in the course, indicating they perceived frequent testing as a driving factor to enhance their academic performance. The participants who received frequent testing agreed on the importance of frequent testing in learning and improving their academic performance.

Of 8 items in the first part of the questionnaire, participants *strongly agreed* to 2 items (items 7 and 8). They *strongly agreed* that knowing their performance on the unit tests helped them study more (item 7, $\bar{x} = 4.30$) and boost their confidence with the targeted course (item 8, $\bar{x} = 4.74$).

The participants' level of agreement to items 1, 2, 4, and 5 were within the range of *agree* level. Among these, they *agreed* that *students need frequent tests to make them study regularly* (item 1), and that *without frequent tests, they would have studied less* (item 5). They also *agreed* that *frequent testing helped them to stay motivated* (item 2)

and that *teachers should give unit tests to the students before the midterm and final examinations to have better test scores* (item 4, $\bar{x} = 4.04$). Interestingly, the participants were *neutral* for the negative items (items 3 and 6). They were *neutral* with the fact that *frequent testing during the course is a waste of time* (item 3) and *that frequent testing did not help them prepare for the midterm and final examinations* (item 6). This indicates that they were satisfied with the frequent testing during the course.

For the second part of the questionnaire on test anxiety, the mean scores range from 2.08 to 3.87 between the levels of *disagree* and *agree*. The total average mean score was *neutral* ($\bar{x} = 2.84$, $SD = .91$). This indicates that the participants had relatively low or no test anxiety. Of 7 items, the participants *disagreed* to items 10, 11, 12 and 13. They *disagreed* that *frequent test is stressful* (item 11) and that *they are anxious before and while taking the tests* (items 11, 12 and 13). They *agreed* to the rest of the items (items 9, 14 and 15): *frequent testing helped them reduce their test anxiety* (item 9), and *improve their confidence to perform better in the tests* (items 14) and *to pass the midterm and final examinations with good scores* (15). In short, the participants appeared to be less anxious with the course after receiving frequent testing.

CHAPTER 5

5. CONCLUSION AND DISCUSSION

The findings of this study can be summarized based on the research questions.

1. The findings of the current study suggest a positive effect of frequent assessment on the participants' final learning achievement. The participants in the experimental group outperformed those of the control group in both the midterm and final examinations. Frequent testing to the course seemed to help them attest to their own learning performance through test scores and encourage them to adopt self-regulated learning. In fact, knowing their own learning progress through frequent tests given seemed to help them develop a sense of self-efficacy belief, thus, becoming more confident of the enrolled course. Moreover, their retention scores were significantly higher than those of the control group. The high retention of classroom materials by the participants who received frequent tests could be primarily due to the influence of frequency effects, particularly the effects of token frequency where learners are

exposed often to the same words or phrases (Ellis, 2002). The result of the current study was in line with Nguyen and McDaniel (2014); Gholami and Moghaddam (2013) and Roediger.et.al. (2011), who claimed that frequent quizzes helped students perform better than those who did not take quizzes.

In addition, the feedback on the test items that the participants received after each unit test seemed to equally play an important role in their learning. The participants seemed to remember the repeated items (be they in same or different test formats) and answer them correctly when these items appeared in their final achievement tests again, particularly those items that had been incorrectly answered on the unit tests. This indicated a positive impact of feedback on test items. The finding was consistent with some previous studies reporting that the feedback helped students identify the flaws in learning and overcoming them accordingly (Cauley & McMillan, 2010).

2. The result revealed a strong correlation between the unit tests scores and the midterm and final examinations scores. The students who scored high on the unit tests consistently scored high on the midterm and final examinations. This finding seems to suggest that the participants who can perform well in the unit tests could also perform well in their learning achievement tests.

In addition, the frequent tests in the course helped the participants increase the amount of time spent studying the target lessons. The taxing nature of the unit tests itself seemed to demand great efforts and time for preparation (Corno & Mandinach, 1983). For this reason, the participants were encouraged to revise the learned materials timely for the sake of tests and tests scores. A survey result showed that the group who received frequent testing studied almost an hour more than the control group per week of the semester. The result is in line with studies by Karpicke and Roediger (2007) and Wilder.et.al. (2001), who posited that frequent assessment increases students' revision of the classroom materials. Furthermore, the current study also revealed that the frequent testing increased participants' class attendance; to avoid the negative impacts of missing the unit tests, which would affect their final grades, the participants see the importance of the unit tests. As a result, they tried to attend the classes. This finding was similar to that of Padilla-Walker (2006) who reported that the frequent quizzes in the course increased the students' regularity to the class.

3. The present study revealed a significant difference in the retention scores between the participants who received frequent testing and those who did not. The participants receiving the unit tests significantly outperformed those who did not. One reason for the higher retention scores could be due to repeated exposure to the classroom materials that frequent testing provided. Another reason could be due to the fact that the participants had greater retrieval practice, leading to greater retention of what was learned. Theoretically, it is believed that greater retrieval practice leads to better retention of the materials tested (McDaniel & Masson, 1985 cited in Butler & Roediger, 2007). Therefore, it is reasonable to conclude that frequent testing helped the experimental group improve their retention ability. The current finding was in line with the earlier studies (e.g. Roediger & Louis, 2014; Roediger et.al., 2011; Carpenter.et.al., 2009) who found that the frequent quizzes helped improve the learner's retention ability.

The more robust finding of the present study was the effect of frequent testing on the experimental group's learning ability with different proficiency levels. The result revealed that frequent testing was beneficial to all participants in the experimental group, irrespective to their language proficiency; neither high nor low proficiency participants had a significant difference in their retention scores compared to what they had retained for the midterm and final tests. Both the proficiencies participants could retain almost the same amount of the materials that they had retained for the midterm and final tests. Therefore, we could not claim that *this group* (high or low proficiency) was benefited more (see Table 5). The uniformity in the impact of frequent testing on both the high and low proficiency group could be due to the taxing nature of the unit tests that demanded a great effort and time for the preparation before the tests (Corno & Mandinach, 1983).

Another interesting finding was that the experimental group could retain what they had learned for the midterm even the retention test was given 3 months after the midterm test. This finding however contradicts with the study by Butler & Roediger (2007) claiming that one month is the realistic timescale over which students can retain the classroom materials. On the other hand, both high and low participants in the control group who did not get any unit tests scored significantly lower in retention tests

compared to their midterm and final tests. Thus, the present study seems to suggest that frequent testing could be beneficial to both high and low proficiency learners who received frequent tests during the course.

4. Most importantly, the participants in the experimental group agreed to the positive impacts of frequent testing. Most of them accepted the importance of having frequent testing in learning. They were satisfied with the routine unit tests, although few participants disliked them saying that unit tests were a waste of time and extra burden. The finding was in line with that of Siddiqui, Mannan and Mannan (2017) who stated that students had positive attitudes towards the frequent testing. It was also found that frequent testing helped increase the participants' learning regularity, enabling them to have a greater exposure to the classroom materials. The result seemed to support an earlier study by Wilder et al. (2001) and Padilla-Walker (2006), who stated that frequent testing helped learners increase their learning consistency.

Frequent testing also helped the participants in this study reduce their test anxiety. The participants reported having lower anxiety particularly before they took midterm and final examinations. Repeated testing on the materials helped them increase their confidence in doing well in the learning achievement tests. The result supported the finding of Ghorbani (2017), who contended that frequent testing helped learners to lower their testing anxiety.

As reported in the findings of the current study, it is possible to conclude that the use of frequent testing in the classroom helped learners to enhance their learning ability, retention ability, and the final learning achievement performance, regardless of their language proficiency levels. Besides, the participants on average agreed upon having positive effects of frequent testing in the classroom; they found it beneficial in various aspects, such as, for reducing their test anxiety, preparing for the final learning achievement tests and improving their retention ability.

6. IMPLICATION AND RECOMMENDATION

Implications and recommendations based on the result of this study can be drawn as follows.

Based on the findings of the current study, it could be claimed that there was a significant difference in scores in the final learning achievement (midterm and final examination) between the participants who received unit tests and those who did not receive any unit tests. Therefore, teachers are suggested to integrate frequent testing in the course to help enhance learners' learning achievement performance. In addition, it should be noted that feedback on tests items may bring more positive results in learning achievement.

The findings of the present study can serve as a powerful tool for motivating teachers in integrating frequent testing in the classroom. This is because the present research has given us a shred of clear evidence on benefits associated with the integration of frequent testing in the classroom. Frequent testing not only helps learners improve their retention ability and final learning achievement performance, but also equally helps teachers in various aspects, e.g. to assess their classroom materials, learners' learning progress, and to learn about their own teaching weaknesses and strengths. However, the nature of current research does not provide any evidence to prove that teachers were really helped by the conduct of frequent testing in the classroom. We can tentatively say that teachers may find frequent testing helpful for them, but hectic at the same time, as they need to put a lot of efforts in creating tests papers and checking it.

The positive effect of frequent testing was further enlightened by investigating participants' responses to the use of frequent testing in the classroom. They, on average, agreed that frequent testing benefited them to improve their learning ability. Frequent testing allowed them to have greater exposure to the classroom materials, this motivate them to study more and enhance their final academic performance.

Therefore, by taking the participants responses and the positive known facts of frequent testing, teachers are recommended to look closely on benefits of frequent testing and implement it in ESL or EFL language classes. Based on the current findings, frequent testing would be more beneficial to postsecondary (vocational students) students aged 15-17 years, where they are matured enough to understand the importance

of frequent testing in their learning. To minimize the workload of teachers or test providers, it would be better to have a test after every two units since some researchers have pointed out that frequency of tests doesn't matter unless the learners are exposed to retrieval practice. However, to learn an insight of testing effects, it is suggestable to have it balanced and at least maintain 1:2 ratio between the number of test to the number of units in the course.

However, for a successful implementation of frequent testing in learning, the difficulty in preparing tests and assessing should be taken into consideration, for it requires a huge effort from teachers. In addition, to confirm the findings of the present study, further research is needed on the other aspects of language besides vocabulary and grammar, and research in different class settings before a conclusion can be drawn on the effect of frequent testing. Moreover, research on other subjects other than the English language might help us gain more valuable insight into the relationship between frequent testing with learners' retention ability and their final learning achievement of learners.

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APPENDICES

APPENDIX A: The Vocabulary and Grammar Unit Tests

Name: _____ **ID:** _____

Unit 1: Work

Direction: Fill in the blanks with the correct job title **10 marks**

Plumber	Electrician	Artist	Bartender
Engineer	Lawyer	Veterinarian	Flight Attendant
Janitor	Cobbler	Reporter	Teacher



1. _____



2. _____



3. _____



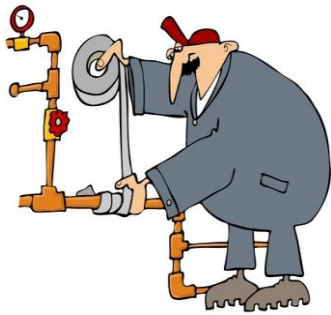
4. _____



5. _____



6. _____



7. _____



8. _____



9. _____



10. _____

Direction: Fill in the blanks with the correct words from the word bank. **5 marks**

Word bank				
factory	carry	grow	look after	repair
museum	wear			

11. My TV does not work. I'll have someone _____ it.

12. I work in the _____. We produce motorcycles.

13. I am a farmer. I _____ vegetables.

14. My sister likes to _____ her red shirt every day.

15. My aunt is a nurse. She _____ the sick people in the hospital

Direction: Fill in the blanks with the correct form of **verb** **5 marks**

16. It often _____ (rain) in October. So, we must carry our umbrellas.

17. Kate _____ (not like) John because he is not friendly.

18. Emily _____ (live) near my house. so, we go to school together.

19. I _____ (not take) the children to school. My husband takes them.

20. He _____ (go) home every evening.

Direction: Complete the text with the verbs in brackets.

5 marks

I am Jessica. I **(21)** _____ (study) in primary school. I **(22)** _____ (have) a brother and a sister. They usually **(23)** _____ (finish) their work at 5.30. We always have dinner together. My sister is 26 years old. She **(24)** _____ (work) in a magazine company. My brother is a musician. He **(25)** _____ (play) guitar for his music band.

Name: _____ ID: _____






Unit 2: Routines and lifestyles

Direction: Fill in the blanks with the correct form of verbs. **10 marks**

take do get play make go wake

I (1) _____ up at 7.30 and I (2) _____ a shower. Then I usually (3) _____ dressed and I (4) _____ a cup of coffee for myself before I (5) _____ to the school.

6-10: Which phrase / sentence best describes the picture.

<p>A., He spent \$200 for his clothes B. They are students C. I always do the ironing for dad</p> <p>D. I comb my hair in the morning E. I enjoy the party. F. He cooks for the customer</p> <p>G. He serves food in the restaurant</p>		
		
<p>6. _____</p>	<p>7. _____</p>	<p>8. _____</p>
		
<p>9. _____</p>	<p>10. _____</p>	

Direction: Fill in the blanks with the words given.

5 marks

license	weekend	enter	appointment	arrive
hurry	passport			

12. Can I see your driving _____?
13. We are late. We need to _____ up.
14. Last _____ I went to meet my grandmother?
15. What time did you _____ here?

Direction: Complete the sentences with the correct form of **verb to be**. **10 marks**

16. I _____ a good student in my childhood days.
17. He walked to the bus stop, but there _____ a long queue.
18. We _____ Japanese. We came here to learn Thai language.
19. There _____ 15 students in the class when I was giving lecture.
20. She _____ still my friend. Isn't she beautiful?

Direction: Complete the sentence with past form of verb given in the brackets.

21. She just _____ (drink) a cup of coffee.
22. Yesterday, I _____ (take) the dog for a long walk.
23. I _____ (grow) my own vegetables last year.
24. Last month we _____ (go) on a trip to Malaysia.
25. Anna _____ (tell) me a funny joke last night.


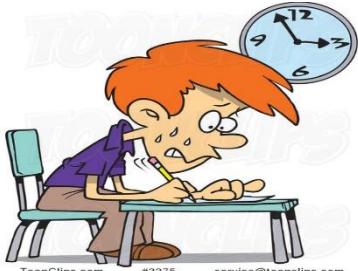
Name: _____ ... ID: _____

Unit 3: Life stories

Direction: Match the pictures with the given phrase / sentences. Write only A, B, C, D, E, F and G. **5 marks**

- A. Do you know any place where I can buy foods and vegetables?
- B. John is married to Jessica.
- C. Tom wants to divorce Jane.
- D. Students are going to the school
- E. He is taking an exam.
- F. My favorite indoor game is cricket.
- G. Max likes to play bowling with his friends.

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<p>2.</p>  <p><small>www.shutterstock.com - 85192795</small></p>	
<p>3.</p> 	

<p>4.</p> 	
<p>5.</p> 	

6-10. Fill the gaps with the given words. **5 marks**

famous	born	couple	job
children	poor	blind	deaf

6. John was _____ on 20th October. Now he is 17 years old.
7. Kristov and Jessica would make a perfect _____. They live happily together.
8. He will lose his _____ if he fails to meet his boss. He is always late to the office.
9. My cousin is _____. He can not see.
10. He is a _____ singer in his country. Everyone knows him.

11-15: Fill in the gaps with the given words. **5 marks**

live	die	retire	fall in love
grow up	move	graduate	

11. My father will soon _____ from his job. He wants to enjoy his old age by staying at home.

12. When I _____, I want to be a doctor.
13. I will stop smoking because I don't want to _____ at the young age.
14. Peter's sister will _____ next year from the university. She wants to work in the company.
15. John _____ with Jane. They plan to get married next year.

Direction: Complete the sentence with the correct form of verb. Use the verbs in brackets. **5 marks**

16. Yesterday I _____ (buy) some fruit from the market.
17. Who _____ (close) the windows last night?
18. He _____ (change) his name to Peter in 1999.
19. She _____ (grow up) in the big city, but now she lives in a small city.
20. I _____ (tell) her not to sing in the classroom. So, she stopped.

Direction: Complete the questions. Use the words in brackets. **5 marks**






21. How long _____ you exercise every morning? (do)
22. Where _____ you last week? (be)
23. _____ you healthy when you were young? (be)
24. _____ we going to the temple now? (be)
25. What _____ she cooks for you last night? (do)

Name: _____ ID: _____

Unit 4: At the station

Direction: Match the pictures with the words given.

aisle seat	window seat	no entry	roadwork
boarding pass	check-in counter	check-out	passport

<p>1.</p>  <p>_____</p> <p>_____</p>	<p>2.</p>  <p>_____</p> <p>_____</p>
<p>3.</p>  <p>_____</p> <p>_____</p>	<p>4.</p>  <p>_____</p> <p>_____</p>
<p>5.</p>  <p>_____</p>	<p>_____</p>

Direction: Fill in the blanks with the words given.

passengers	domestic flight	international flight
reservation	gate	book
		entry

6. A flight within a country is called a _____ .
7. The _____ will open at 7.00 am, but we must check-in before 6.00 am.
8. Only the _____ will fly from Thailand to Malaysia.
9. There were fifty _____ on the plane. Most of them were women.
10. I want to _____ a bus ticket from Songkhla to Phuket.

Direction: Fill in the blanks with the words given.

carry	airport	single	travel	depart
arrive	take off	returning		

11. I like to _____ alone because I can go anywhere I want.
12. What time did you _____ at your place.
13. The train will _____ from Hatyai station at 7.00pm. It takes 5 hours to reach Bangkok
14. Can I help you _____ your bag? It's too heavy for you.
15. The plane could not _____ because of the bad weather.

Direction: Complete the sentences with correct form of given verbs.

16. I usually drive to work, but I am _____ (not drive) today.
17. My brother is _____ (stay) at our house for three days.
18. Maxwell and John are _____ (not sleep) on our sofa tonight.
19. My uncle will _____ (arrive) here at 9:00 pm.
20. John is _____ (read) a book now. Don't disturb him.

Direction: Complete the sentences with correct form of given verbs.

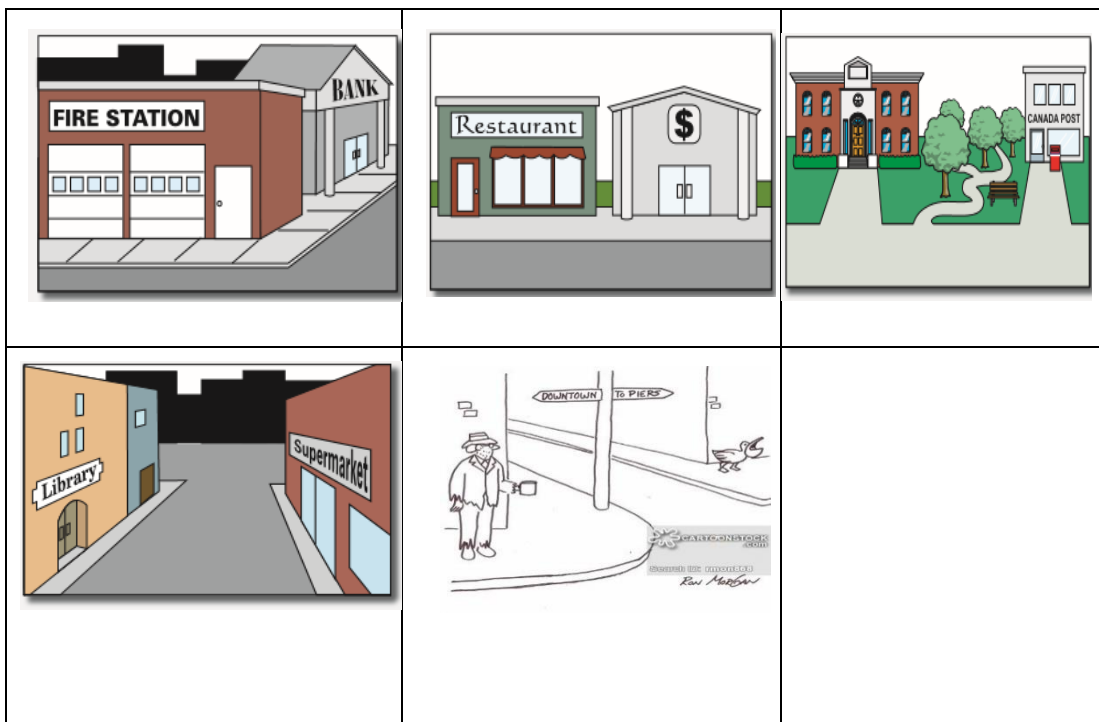
21. He _____ (drink) tea every morning.
22. The earth _____ (move) round the sun.
23. Emily _____ (go) to party every night.
24. It often _____ (rain) on Sundays.
25. They always _____ (play) football at school.

Name: _____ ID: _____

Unit 5: Direction and locations

Direction: Complete the sentences with the words given. Use pictures as cue.

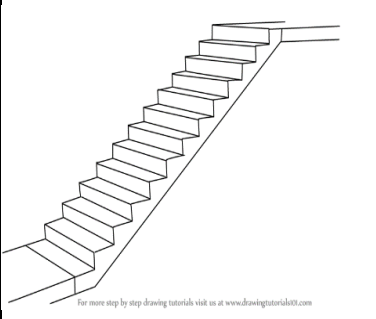

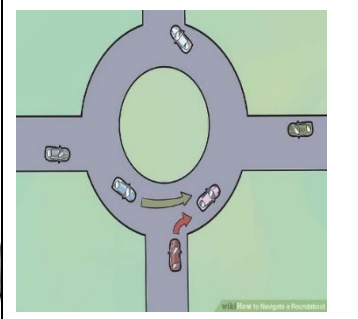
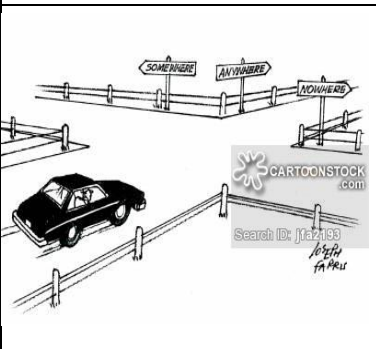

between	behind	next to	in front of
on the corner	across from	below	under



1. A bank is _____ the fire station.
2. A restaurant is _____ the bank.
3. A supermarket is _____ the library.
4. A man is standing _____ of the house.
5. A park is _____ the post office and the school.

6-10: Fill in the blanks with correct word/ words that describe the pictures.

Under the bridge	Over the bridge	Stairs	Garden	Junction
Roundabout	Motorway	Building		

 <p>6. _____</p>	 <p>7. _____</p>	 <p>8. _____</p>
 <p>9. _____</p>	 <p>10. _____</p>	<p>_____</p>

Direction: Fill in the blanks with the words given.

direction	traffic lights	police station	railway
station	sports center	petrol station	shopping center
museum			

11. _____ is a place that sells petrol for your car.

12. I will go to Krabi by train. Do you know where is the _____?

13. We don't know where your house is. Could you give me _____ please?
14. _____ is a large building where we can buy many kinds of clothes and other things.
15. A place where you can play different kinds of sports is called _____.

Direction: Complete the sentences with correct form of verbs. Use the verbs in brackets

16. He _____ (walk) to school yesterday.
17. My friends _____ (see) the Prime Minister last year.
18. He _____ (drive) fast when the accident happened.
19. I _____ (visit) my grandmother last week.
20. The light went out while I _____ (read).
21. Don't make noise. I _____ (do) my homework.
22. It started to rain when we were _____ (play) tennis.
23. The students _____ (clean) the blackboard yesterday.
24. The phone rang while I _____ (eat) dinner.
25. I _____ (have) a terrible headache yesterday.

Name: _____ ID: _____

Unit 6: Seeing the world

Direction: Match column **A** with column **B**. Write **a, b, c...** on the given space. Choose only one option.

A	B
1.Desert _____	a. Earth
2.Planet _____	b. Everest
3.Lake _____	c. Sahara
4.Mountain _____	d. Pacific
5.Ocean _____	e. Victoria
	f. Asia
	g. Country

Direction: Fill the blanks with the words given.

distance	place	west	windy Spring
southern	river	Europe	province continent

6. The railway station is 5 km away. It's a long _____ to walk.
Let's get a taxi.
7. Yala and Pattani are in the _____ Thailand.
8. I will not swim in this _____. It's too dirty.
9. Japan and Thailand are in the Asia _____.
10. _____ is my favorite season.

Direction 11-15: Match column **A** with column **B**. Write **a, b, c...** on the given space.

A	B
11.Weather _____	a. a medium-sized boat
12.Yacht _____	b. a line which divide two countries
13.Map _____	c. a car which carries sick person to the hospital

14. Border _____ d. snow
15. Small flakes _____
- e. a very large sea
 - f. location of the place
 - g. rainy, sunny, windy, etc.
 - h. a playground where people play football

Direction: Read the following sentences/ phrases and mark **S** for statement and **Q** for question.

16. Is Andy going to play tennis? ()
17. I want to go to mall ()
18. Are you going to watch TV? ()
19. We will have a party next Monday. ()
20. You aren't going this evening. ()

Name: _____ ID: _____

Unit 7: Describing people

Direction: Match the pictures with the words given. Write on the given space below the pictures.

baldhead	middle-aged	curly hair	young
medium-height	pot-bellied	bearded	slim
short	straight hair	mustache	wavy hair

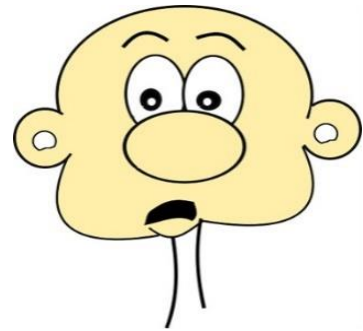
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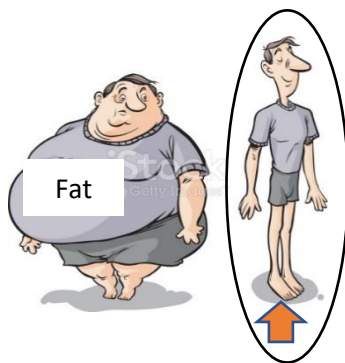
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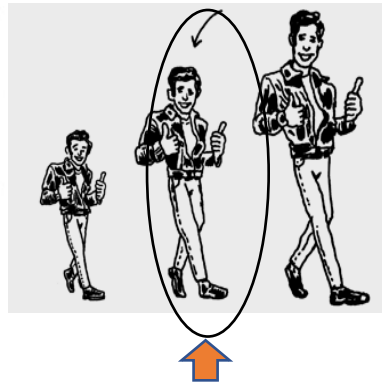
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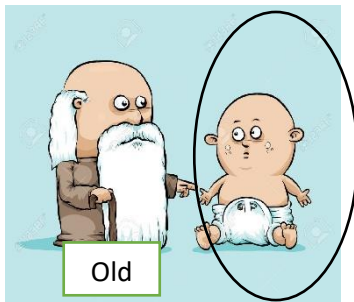
8.



9



10.



Direction: Fill in the blanks with the words given. Each word can be used **only once**.

beautiful	boring	intelligent	friend	lazy
overweight	good-looking	shy		

11. Every woman wants to have Mr. Johnson as their husband because he is _____.

12. He is a/an _____ boy. He scored 90% in all subjects.

13. Mike and his sister are just opposite. Mike is _____ and his sister is hardworking.

14. She is very _____. She doesn't want to meet and talk to people she doesn't know.

15. Your sister is _____. She needs to eat less.

Direction: Underline the correct word to complete the sentences.

16. Are you a *good* / *well* cook?

17. Do you drive *careful* / *carefully*?

18. Are you a *nice* / *nicely* person?

19. Is she a *great* / *greatly* dancer?

20. Do you walk *quick* / *quickly*?

Direction: Fill in the blanks with the words given.

large	lovely	bright	dark	ugly
unskilled	dirty	slim		

21. The company doesn't give a job to a/an _____ worker. They want experienced worker

22. My house is very _____. It has 5 bedrooms and 3 bathrooms.

23. Your room is very _____. Make sure you clean it by noon.

24. There is no light in that house. It is very _____.

25. The moon was _____ last night. We could see the road very clearly while driving.

Name: _____ ID: _____

Unit 8: TV Program

Direction: Match column **A** with column **B**. Write **a, b, c...** on the given space, choose only one option.

A	B
1. News _____	a. animated
2. Game show _____	b. comedy shows
3. Cartoon _____	c. shows for entertainment
4. Documentary _____	d. music shows
5. Sitcom _____	e. gives new information about the world
	f. shows about history and life events
	g. Car show

Direction: Fill in the blanks with the words given.

advertisements movie documents couch potato series remote control news anchor actor
--

6. I don't like this program. I want to change it but the _____ is not working.
7. A person who presents news on the TV is called _____
8. A _____ is someone who spends a lot of time on the sofa watching TV.
9. Commercial TV channels get most of their money from _____.
10. _____ is a weekly TV show which has the same characters.

Direction 11-15: Fill in the blanks with the words given. Use only once.

acting	program	player	channel	character
episodes	animate			

My favorite TV (11) _____ is 'Mr. Been'. It is one of the best shows in (12) _____ 7. I like the role of the main (13) _____, 'Been'. He is my favorite actor because I like his (14) _____. There are 7 (15) _____ altogether. I have watch 1 to 6 and now I am waiting for the last one.

Direction: Use *present perfect continuous* and *present perfect simple* to complete the following sentences by using the words given in the bracket.




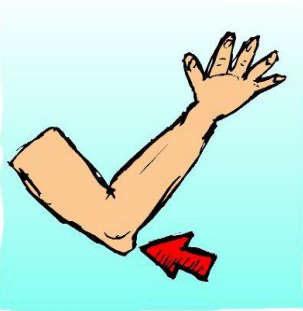


16. My friends have been _____ (live) here since 2010.
17. John _____ (book) the hotel. It's time to pay.
18. My father is in his office. He _____ (not arrive) home yet.
19. They _____ (not visit) the temple. They will go on Sunday.
20. Where is Danny? She has been _____ (wait) for Danny for 20 minutes.
21. We have been _____ (play) basketball since 2 o'clock.
22. Emma has _____ (write) this letter for her husband. She will finish it before 5 pm.


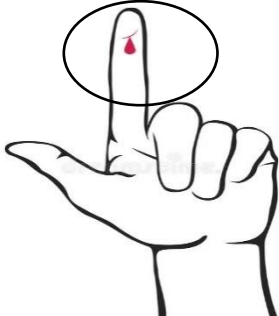


Name: _____ ID: _____

Unit 9: Health problems

Direction: Which phrase / sentence best describes the picture. Write on the given blanks.

My elbow's swollen	I've got infection	I've sprained my ankle
My arm itches	I've cut my finger	My thumb hurts
I've got a rash	My nose is bleeding	I've got a cold
I've got flu	I've hurt my knee	I have bruised my leg

 <p>1. _____</p>	 <p>2. _____</p>	 <p>3. _____</p>
 <p>4. _____</p>	 <p>5. _____</p>	 <p>6. _____</p>

 <p>7. _____</p>	 <p>8. _____</p>	 <p>9. _____</p>
 <p>10. _____</p>		

Direction: Fill in the blanks with the words given.

painkiller	plasters	suns cream	scissors
toothpaste	ice	hairbrush	burn

11. Don't forget to use _____ and sunglasses when you go to the beach. You must take care of your skin and eyes.

12. We use _____ to keep our teeth clean.

13. I have got a headache. I need to take a/an _____.

14. Can I borrow your _____, please? I will cut my hair.

15. Don't play with the candlelight. It may _____ your hair.

Direction: Use *present perfect continuous* **and** *past simple* to complete the given sentences by using the given words in bracket.

16. I _____ (not see) him for a long time.
17. They _____ (finish) their work and now they are free.
18. We _____ (know) each other since we were children.
19. Last year, my father _____ (go) to Singapore.
20. She _____ (cut) her finger and it is bleeding now.
21. Jack _____ (be) my friend for over 20 years
22. He _____ (sing) a lovely song yesterday.

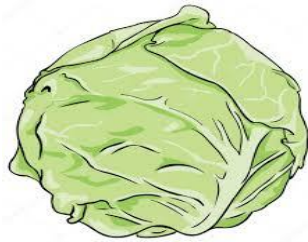
Name: _____ ID: _____

Unit 10: Cooking

Direction: Match the words with the given pictures. Write on the given blanks.

cabbage	frying pan	bacon	plate	bowl
egg beater	jug	peel	stir	pot
chopping board	spoon	garlic	mince pork	
apron				

1.



2.



3.



4.



<p>5.</p>  <p>_____</p>	<p>6.</p>  <p>_____</p>
<p>7.</p>  <p>_____</p>	<p>8.</p>  <p>_____</p>
<p>9.</p>  <p>_____</p>	<p>10.</p>  <p>_____</p>

Direction 11-15: Fill in the blanks with the words given.

dishes	ingredients	grill	rubbish	tidy
slice	sugar	healthy	bake	

11. We must keep our kitchen clean and _____.
12. After the dinner, I will wash _____.
13. What are the _____ that we use to make omelet?
14. Eat fruit and vegetables every day to keep our body _____.
15. Throw food waste and _____ in the bin.

Direction: Write the **plural form** of the following **singular words**.

Singular	Plural
16. Knife	
17. Mango	
18. Apple	
19. Milk	
20. Strawberry	

Direction: Fill in the blanks with the words given.

some	any	a/ an	much	few	many	little
------	-----	-------	------	-----	------	--------

21. How _____ apples do you want to buy?
22. How _____ salt do you have?
23. Put _____ milk into your coffee. It will taste better.
24. They haven't got _____ food to eat. We need to go to a restaurant.
25. Can I have _____ bread? I am hungry.

APPENDIX B: Midterm Examination

Songkhla Vocational College

**Midterm Examination
English for Life
Level 2
December 2017**

**Academic Year: 2017
Subject Code: 2000-1202
All Departments**

.....
Section A: Choose the best answer.

-1-

1. A: What's _____ with you?

B: I have a toothache.

- a. wrong b. weak
c. time d. else

2. A: I was sick last night.

B: Let me _____.

I'll give you a prescription.

- a. introduce myself
b. go outside
c. take your temperature
d. stay with you

3. I have a _____ after a long-day walking.

- a. backache b. sore throat
c. sore feet d. stomachache

4. A: _____ ever had any toothache?

B: No, I haven't.

- a. Have they b. What are
c. Can she d. Have you

5. A: _____?

B: Size six.

- a. Have you got size six

b. What size do you wear

c. What size do you have

d. Do you have size six

6. A: What are you going to buy at the _____?

B: I want to buy some clothes and a towel.

- a. restaurant b. fitness center
c. shopping mall d. supermarket

7. A: _____?

B: 35 baht a kilo.

- a. How is it b. How many kilos
c. How much is it d. What can I pay

8. It's too expensive. I can't afford it.

Could you give me a _____?

- a. stamp b. price
c. section d. discount

9. A: How often do you exercise?

B: _____.

- a. Once a week b. Do yoga
c. Going jogging d. Lot of fun

10. What **is not** in the group?
 a. surfing b. hurting
 c. weightlifting d. bowling
11. I am very _____ that I'm late.
 a. sorrow b. nice
 c. sorry d. cheerful
12. Ann was waiting for me when I _____.
 a. arrive b. arrived
 c. arriving d. none
13. Smoking in the library is _____.
 a. returned b. borrowed
 c. prohibited d. considered
14. You can buy jam, coffee, yogurt and _____
 eggs at the _____.
 a. bank b. theatre
 c. supermarket d. kitchenware
15. It **is not** a good thing to _____.
 a. talk in class
 b. listen to the teacher
 c. study hard
 d. have a good manner
16. I have a _____ nose.
 a. running b. runny
 c. runner d. ran
17. A _____ cures sick animals.
 a. veterinarian
 b. firefighter
 c. nurse
 d. pharmacist
18. A _____ plays with musical instrument.
 a. fisherman b. policeman
 c. singer d. musician
19. I like to go swimming. You like to _____ aerobics.
 a. play b. go
 c. do d. jump
20. A: Was your sister at the school?
 B: No, she _____ at the school.
 a. was b. were
 c. wasn't d. weren't
21. A: What kind of sport do you like most?
 B: _____.
 a. I like to play volleyball
 b. Volleyball is his sport
 c. O.K. That's right
 d. I have many sports
22. I _____ my own vegetable last year.
 a. grows b. grown
 c. grow d. grew

23. A: What do you do to keep fit?

B: I always go to the

_____.

- a. sneakers b. gym
c. tennis d. station

24. Kimberly is the _____ girl in the

class.

- a. higher b. highest
c. taller d. tallest

25. Thailand is _____ than China.

- a. hotter b. hottest
c. more hot d. hot

26. Thai food is _____ on this table.

- a. more delicious
b. delicious than
c. the most delicious
d. most delicious

27. I was born in _____.

- a. Songkhla b. spa
c. newspaper d. guest house

28. John _____ reading a book now.

- a. is b. was
c. are d. were

29. A: What games you brother play?

B: He _____ outdoor games.

- a. play b. played
c. plays d. player

30. There _____ no meet on the menu tonight.

- a. am b. is
c. are d. wer

Section B: Write the answers on the given answer sheet. No need to copy the question.

- | | | |
|--------------|--------------|------------|
| -music store | -main course | -all right |
| -shoe store | -sore throat | -wound |
| -boat | -order | -table |
| -dessert | -starter | -bookstore |

31. Linda will go to buy a nice pair of shoes at a _____.
32. Sumalai will look for a good CD at a _____.
33. The principal dish of a meal is _____.
34. A dish served as the last course of a meal is _____.
35. May I have a _____ for two, please?
36. Are you ready to _____, sir?
37. Is anything _____?
38. Tennis → racket, swimming → swimming suit, fishing → _____
39. He can't talk too much today because he has got a _____.
40. Oh! You just cut your finger. You have got a _____.

APPENDIC C: Final Test
Songkhla Vocational College

Final Examination

Academic Year: 2017

English for Life

Subject Code: 2000-1202

Level 2

All Departments

February 2018

Section A: Choose the best answer.

-1-1. A: _____ to France?

B: I went there last month.

- a. When did you go
- b. When do you go
- c. How long did you go
- d. How often do you go

2. Jane is _____ to the office in the afternoon.

- a. go b. going
- c. gone d. went

3. I am looking forward to _____ you.

- a. see b. saw
- c. seeing d. seen

4. Someone who is not afraid.

- a. funny b. brave
- c. shy d. weak

5. Sandra _____ her vacation at a hostel last summer.

- a. spend b. spends
- c. spending d. spent

6. I _____ a basket of fruit for my aunt yesterday.

- a. buy b. have bought
- c. bought d. am buying

7. A: _____?

B: Yes, I'll have the roast beef and an lemon juice.

- a. Are you ready to order
- b. Are you ready
- c. What would you like
- d. What are you going to eat

8. A: I don't like drinking coffee.

B: _____

- a. So, do I b. I like it too
- c. either do I d. No, I don't

9. What is not in the group?
- customer, waiter
 - headwaiter, waitress
 - busboy, waitress
 - food - stand, waiter
10. Yesterday, Maria _____ lunch at a restaurant.
- eat
 - eaten
 - eats
 - ate
11. A: I like dancing.
B: _____
- So, does she
 - Neither do I
 - Nor do I
 - So, do I
12. A: What _____ do you like?
- B: Well, I prefer European food.
- sort of food
 - kind of fruit
 - sort of vegetable
 - kind of plant
13. Look at those _____. We're probably going to have a storm.
- snow
 - clouds
 - fog
 - smooth sea
14. The sun rises at 6:12 a.m. and _____ at 6:30 p.m.
- declines
 - be isolated
 - below
 - sets
15. A TV program that shows real life events.
- soap
 - cartoon
 - drama
 - documentary
16. It's _____ and there is a lot of snow scattering over everything.
- icy
 - snowy
 - frosty
 - foggy
17. The doctor takes the patient's Temperature, _____ his heart and _____ lungs and check his blood pressure.
- listens to
 - stays
 - speaks
 - speaks
18. A: _____?
B: I'm not feeling well, doctor.
- What are you
 - What's your trouble?
 - What do you do
 - How do you come here?
19. I've got a _____ because I got into a fight.
- burn
 - cough
 - black eye
 - bruise

20. A: I hope you feel better soon.

B: I think so and thanks for

_____ me.

- a. checking b. picking
b. waiting d. calling

21. We can send the messages by fax or _____.

- a. e-mail b. calculator
c. printer d. calendar

22. A: May I speak to Thomson, please?

B: Yes, _____

- a. Thank you b. Please hold the line
c. Goodbye d. See you

23 _____ plans to sell goods for the company.

- a. Marketing Department b. Caller
c. Filing cabinet d. Engineer

24. What are the office equipments?

- a. stapler, printer
b. mobile phone, spoons
c. mouse pad, cheese
d. salmon, computer

25. A: May I have the menu, please?

B: Yes, certainly!

- _____
- a. Alas! b. Don't mention it
c. Here you are d. Thank you

26. cucumber, onion, carrot,

mushroom, _____, _____

a. tomato, boiled egg b. eggplant, potato

c. pear, spinach d. trout, lettuce

27. apple, grapes, strawberry, banana,

_____ , _____

a. orange, lamb b. squid, mango

c. steak, herring d. kiwi, raspberry

28. I _____ my homework yet.

- a. have finished b. has finished
c. haven't finished d. finished

29. He sprained his ankle and now it's

_____.

- a. swollen b. hot
c. smashed d. shrunk

30. There are only _____

bananas in the box.

- a. more b. many
c. a little d. a few

Section B (Question 31-40). Write the answer on the given answer sheet. Write the **question number** and choose the answer from the words given.

Choose the best answer

drinks	crops
fast-food restaurant	takeaway
fruits	seafood
taste	vegetables
pub	ways to cook

31. a place where you can buy and eat food being prepared very quickly.
32. a place that sells alcohol and sometimes serves food too.
33. a place that sells food you can take to eat somewhere to eat.
34. chocolate shake, whisky, soda, lemonade, yogurt
35. bland, spicy, mild, sugary
36. rice, corn, flour, sticky rice
37. cauliflower, cabbage
38. watermelon, mangosteen, pineapple, durian
39. oyster, shrimp, lobster, clam
40. grill, toast, bake, boil, steam

APPENDIX D: Retention Test**Direction: Choose the best answer****Name:** _____ **ID:** _____

1. A: What are you going to buy at the
_____?

B: I want to buy some clothes and a towel.

- a. restaurant b. fitness center
c. shopping mall d. supermarket

2. It's too expensive. I can't afford it.

Could you give me a _____?

- a. stamp b. price
c. section d. discount

3. A: How often do you exercise?

B: _____.

- a. Once a week b. Do yoga
c. Going jogging d. Lot of fun

4. A _____ plays with musical
instrument.

- a. fisherman b. policeman
c. singer d. musician

5. Smoking in the library is _____.

- a. returned b. borrowed
c. prohibited d. considered

6. A _____ cures sick animals.

- a. veterinarian
b. firefighter
c. nurse
d. pharmacist

7. A _____ plays with musical instrument.
- a. fisherman b. policeman
c. singer d. musician
8. I am very _____ that I'm late.
- a. sorrow b. nice
c. sorry d. cheerful
9. hat **is not** in the group?
- a. surfing b. hurting
c. weightlifting d. bowling
10. There _____ no meet on the menu tonight.
- a. am b. is
c. are d. were
11. A: What games you brother play?
B: He _____ outdoor games.
- a. play b. played
c. plays d. player
12. John _____ reading a book now.
- a. is b. was
c. are d. were
13. Thailand is _____ than China.
- a. hotter b. hottest
c. more hot d. hot
14. Kimberly is the _____ girl in the class.
- a. higher b. highest
c. taller d. tallest

15. A: Was your sister at the school?

B: No, she _____ at the school.

- a. was
- b. were
- c. wasn't
- d. weren't

16. A: _____ ever had any toothache?

B: No, I haven't.

- a. Have they
- b. What are
- c. Can she
- d. Have you

17. Ann was waiting for me when I

_____.

- a. arrive
- b. arrived
- d. arriving
- d. none

18. I _____ my own vegetable last year.

- a. grows
- b. grown
- c. grow
- d. grew

19. He _____ (drink) tea every morning.

- a. drink
- b. drinks
- c. drinking
- d. drank

Direction: Write the answers on the given space. Each word can be used only **once**.

- | | | | |
|-------------|---------------|---------|----------|
| - dessert | - main course | - boat | -starter |
| - bookstore | -sore throat | - wound | - order |
| - bookstore | -music store | | |

20. Sumalai will look for a good CD at a _____.
21. He can't talk too much today because he has got a _____.
22. A dish served as the last course of a meal is _____.
23. Oh! You just cut your finger. You have got a _____.
24. Tennis → racket, swimming → swimming suit, fishing → _____.
25. The principal dish of a meal is _____.
26. Someone who is not afraid.
- a. funny b. brave
- c. shy d. weak
27. The sun rises at 6:12 a.m. and _____ at
6:30 p.m.
- a. declines
- b. be isolated
- c. below
- d. sets
28. A TV program that shows real life events.
- a. soap
- b. cartoon
- c. drama
- d. documentary
29. What is not in the group?
- a. customer, waiter
- b. headwaiter, waitress
- c. busboy, waitress

d. food - stand, waiter

30. I've got a _____ because I got into a fight.

a. burn b. cough

c. black eye d. bruise

31. A: I hope you feel better soon.

B: I think so and thanks for _____ me.

a. checking b. picking

b. waiting d. calling

32. We can send the messages by fax or _____.

a. e-mail b. calculator

c. printer d. calendar

33. _____ plans to sell goods for the company.

a. Marketing Department b. Caller

c. Filing cabinet d. Engineer

34. He sprained his ankle and now it's _____.

a. swollen b. hot

c. smashed d. shrunked

35. apple, grapes, strawberry, banana,

_____ , _____

- a. orange, lamb b. squid, mango
c. steak, herring d. kiwi, raspberry

36. There are only _____ bananas in the box.

- a. more b. many
c. a little d. a few

37. I _____ my homework yet.

- a. have finished b. has finished
c. haven't finished d. finished

38. A: I like dancing.

B: _____

- a. So, does she b. Neither do I
c. Nor do I d. So, do I

39. Yesterday, Maria _____

lunch at a restaurant.

- a. eat b. eaten
c. eats d. ate

40. Sandra _____ her vacation at a hostel

last summer.

- a. spend b. spends
c. spending d. spent

42. I am looking forward to _____ you.

- a. see b. saw
c. seeing d. seen

43. A: _____ to France?

B: I went there last month.

- a. When did you go
- b. When do you go
- c. How long did you go
- d. How often do you go

44. I _____ a basket of fruit for my aunt
yesterday.

- a. buy b. have bought
- c. bought d. am buying

45. A: I don't like drinking coffee.

B: _____

- a. So, do I b. I like it too
- c. either do I d. No, I don't

Direction: Write the answers on the given space. Each word can be used only **once**.

- Crops - takeaway - pub - taste
- Fast-food restaurant - drinks - seafood -fruit

46. a place where you can buy and eat food being prepared very quickly
_____.

47. rice, corn, flour, sticky rice _____.

48. watermelon, mangosteen, pineapple, durian
_____.

49. bland, spicy, mild, sugary _____.

50. a place that sells alcohol and sometimes serves food too. _____

APPENDIX E: Questionnaire on perception of frequent testing

Please put a mark to the answer of your choice. (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree)

Frequent Testing					
Items	5	4	3	2	1
1. After knowing my grades for unit tests in the course, I started studying more					
2. I feel confident with the course when I am informed of my scores of unit tests					
3. I need unit tests in the course to study regularly					
4. I need unit tests in the course to stay motivated					
5. I want my teachers to give us unit tests before mid-term and final examinations					
6. Without frequent tests, I would have studied less during the course					
7. I think unit test during the course is a waste of time					
8. I think frequent testing did not help us prepare for the midterm and final examination					
Total					
Test Anxiety					
9. I feel nervous when I do the midterm/final examinations					
10. Frequent tests during the course are stressful					
11. Before the unit test, I feel anxious					
12. Before midterm and final examinations, I feel anxious					

13. My test anxiety is reduced because I was given frequent tests during the course					
14. Before the midterm and final examinations, I feel confident that I will pass the tests.					
15. I think I can pass the midterm and final examination with better scores					
Total					

MANUSCRIPTS

MANUSCRIPTS

Paper 1: The Effect of Frequent Assessment on Language Development

The Effect of Frequent Assessment on Language Development*

ผลของการประเมินแบบบ่อยครั้งต่อการพัฒนาทางภาษา

Thinley Wangdi**

Thanyapa Palanukulwong***

Abstract

Frequent assessment has been one of the most common teaching tools used in an educational field. However, its impact on learners' performance is unclear. This study aimed to investigate the impact of frequent assessment in the form of unit test on the midterm and final scores of the learners. Fifty Thai vocational students were recruited for the study. They were divided into two groups of 25 students each; the experimental and control group. A total of ten unit tests following each unit of the course were administered to the participants in the experimental group. Subsequently, feedback was given to the participants on tests' items. The control group neither received any unit tests nor the feedback. Then, both groups were administered the midterm and final examinations. Independent sample t-test was used to compare the midterm and final mean scores of the two groups. The result of the study showed a significant increase in the midterm and final scores of the experimental group. The scores of the midterm and final examinations of the two groups were significantly different at 0.05 level. The study also revealed a strong positive relationship between the experimental group's unit test scores and the midterm and final examinations scores. In short, there is a positive impact on the performance of students when the frequent assessment is conducted.

Keywords: formative assessment, summative assessment, frequent testing, academic performance.

* The article is conducted to investigate the effects of frequent assessment on language development and to fulfill the requirement for Master of Arts in Teaching English as an International Language, Faculty of Liberal Arts, Prince of Songkla University, Hatyai Campus.

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บทคัดย่อ

การประเมินแบบบ่อยครั้ง (Frequent Assessment) เป็นเครื่องมือหนึ่งที่ใช้บ่อยที่สุดในด้านการศึกษา แต่ผลกระทบต่อความสามารถของผู้เรียนยังคงมีความไม่แน่นอน งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลกระทบของการประเมินแบบบ่อยครั้ง (แบบทดสอบท้ายบทเรียน) ต่อผลการทดสอบกลางและการทดสอบปลายภาคของผู้เรียน ประชากรและกลุ่มตัวอย่างที่ใช้ในการวิจัยครั้งนี้ ประกอบด้วย นักเรียนไทยในระดับอาชีวศึกษา 50 คนแบ่งออกเป็นสองกลุ่มคือกลุ่มทดลองและกลุ่มควบคุมจำนวนกลุ่มละ 25 คน ทั้งสองกลุ่มมีความสัาไรทางด้านภาษาอังกฤษไม่แตกต่างกันอย่างมีนัยสำคัญทางสถิติ ก่อนการทดลอง กลุ่มทดลองทำแบบทดสอบของแต่ละหน่วยจำนวน 10 หน่วยของแต่ละหน่วยการเรียนรู้และครูแจ้งผลคะแนนและให้ข้อมูลย้อนกลับ (Feedback) การทดสอบของแต่ละครั้ง กลุ่มควบคุมไม่ได้รับการทดสอบของแต่ละหน่วยและผลคะแนนใดๆ จากนั้นทั้งสองกลุ่มทำแบบทดสอบระหว่างภาคและปลายภาค โดยสถิติที่ใช้ในการวิเคราะห์ข้อมูล ได้แก่ ค่าสถิติ t-test

ผลการศึกษาพบว่า

กลุ่มทดลองมีระดับคะแนนเฉลี่ยจากการทำแบบทดสอบระหว่างภาคและปลายภาคสูงขึ้นอย่างมีนัยสำคัญที่ระดับ .05 ซึ่งแสดงให้เห็นถึงความสัมพันธ์เชิงบวกระหว่างคะแนนการทดสอบท้ายบทของกุ่มทดลองและคะแนนการทดสอบกลางภาคและปลายภาค โดยส่งผลในเชิงบวกต่อความสามารถของนักเรียนเมื่อทำการประเมินแบบบ่อยครั้ง นอกจากนี้ยังพบว่าการทดสอบบ่อยครั้งทำให้กลุ่มทดลองเข้าชั้นเรียนบ่อยกว่าและให้เวลากับการทบทวนบทเรียนมากกว่ากลุ่มควบคุม

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Introduction

Conventionally, an assessment is defined as a process of evaluating students' work to help them pass the enrolled course (Taras, 2005). Assessment is often divided into a formative and summative assessment. Formative assessment is interchangeably used as an assessment *for* learning and summative assessment as an assessment *of* learning (DeLuca & Klinger, 2010). The use of an assessment has become the most common trends in an educational field to help students improve their learning outcome (William et al., 2011). In fact, an earlier researcher pointed out that 'a good teaching without a good assessment is a job only half done' (Maudsley, 1989). The statement appears to be a strong recommendation to the educators of all ages to have assessment included within the course to enhance the quality of teaching and learning.

According to Cilliers, Schuwirth, Adendorff, Herman and Vleuten (2010), assessment is an educational tool that is primarily designed to promote a meaningful learning. It is considered as one of the most influential tools in an educational field. They also highlight the impact of assessment on students learning process, believing that assessment provides extrinsic motivations and enables students to study more. A similar claim was made on students' change in efforts and dedications towards learning after the

conduct of assessment (Van Etten et al., 1997). Thus, the positive impacts of assessment on students and how it contributes to students learning process has emphasized in various quarters (Segers & Dochy, 2006).

Formative and Summative Assessment

Formative assessment is an evaluation technique used by teachers to evaluate teaching materials and students' learning progress, particularly focused on the improvement of the students learning outcome through a series of feedback (Andersson & Palm, 2017). However, the definition of formative assessment is still inconsistent. Some authors claim that formative assessment is a mere classroom assessment (Brookhart, 2001). Nonetheless, the use of formative assessment is always believed to play a vital role in enhancing the students learning ability since it enables students to evaluate their own progress of learning (McDowell, Wakelin, Montgomery, & King, 2011).

Formative assessment is beneficial in other aspects as well. It is believed that formative assessment helps students improve their cognitive intelligence which fills in as the main impetus to enhance their summative performance (Cauley & McMillan, 2010; Krasne, Wimmers, Relan, & Drake, 2006). Also, a wide range of previous studies have claimed that the use of any developmental activities (formative assessments) during the course significantly improve the students' final summative performance (e.g., Andersson & Palm, 2017; Nguyen & McDaniel, 2014; Krasne et al., 2006).

Most importantly, Hill, Guinea, and McCarthy (1994) emphasize the fact that students extensively feel the need of having a frequent formative assessment in the course. They reported that 89% of the students who were participating in their study acknowledged the advantage of frequent formative assessment because it enabled them to improve their learning strategy.

Over the last few decades, many studies have been done on the impact of formative assessment on students' final performance (Cauley & McMillan, 2010; Hill, Guinea, & McCarthy, 1994). For instance, William, Lee, Harrison, and Black (2004) investigated the effectiveness of the formative assessment on students' final performance. They claimed that the formative assessment during the course could improve the performance of students by 60 percent more than their actual ability. Moreover, Nguyen and McDaniel (2014) reported that frequent formative assessment helped students improve their final summative assessment. In addition, Roediger and Louis (2014) and Butler and Roediger (2007) also claimed that frequent assessment in the classroom could improve students' retention of the learned materials and their retention ability. Nevertheless, a recent study of William et al. (2011) showed that the degree of effectiveness of the formative assessment depended on the frequency of the intervention or assessment during the course.

On the other hand, *summative assessment* is defined as a process of summing up the records of students to learn his/her overall achievement of the course. It is basically

carried out at certain intervals when students achievement has to be reported (Harlen & James, 1997). Summative assessment serves as a reliable evidence to the students' learning achievement since the students are assessed based on the common specified goals and criteria by the institutions (P. T. Knight, 2002). Unlike formative assessment which is intended to improve students learning, summative assessment is more of summing-up the scores for grading purposes (Brookhart, 2001).

However, it's not only assessment which helps students learn better. Feedback after the assessment is equally considered as an important tool in the framework of assessment. Feedback on assessment helps students identify learning errors and modify them accordingly (Cauley & McMillan, 2010). Feedback allows students to interpret their errors and bring change in their learning process (Blackman, 2012; Rushton, 2005). Particularly, immediate feedback after tests plays an important role in learning (Epstein & Brosvic, 2001). Immediate feedback on test materials is effective because it helps students acquire and retain tests materials in higher volume (Epstein et al., 2002). Feedback also help students understand and detect the error of the learned materials, which they can alter and learn to improve their final examination performance (Bangert-Drowns, Kulik, Kulik, & Morgan, 1991).

Frequent Testing

Frequent testing has been defined and interpreted in numerous ways by different scholars based on the conduct of the test and allotted time intervals for the tests (Gholami & Moghaddam, 2013). For instance, according to Kling, McCorkle, Miller and Reardon (2005), frequent testing is a test which is administered on a monthly basis, whereas earlier researchers have defined it as a routine examination done to assess students in a weekly (Keys, 1934) and daily basis (Dineen, Taylor & Stephens, 1989). The most common tools used in frequent assessment are short quizzes (e.g. multiple choice questions, gap-filling, and short answer questions). These tools are integrated into the courses to help students master the learned materials for the final examination (McDaniel, Anderson, Derbish & Morrisette, 2007).

Frequent testing has been the primary choice for the educators since it helps students know one's own learning progress (McDowell et al., 2011; Keys, 1934). Moreover, testing is a mandatory task in which each individual student must be interested in to qualify the enrolled course, thereby motivating students to learn more than the usual (Brown, 2005). Furthermore, the conduct of frequent testing is believed to improve students' learning consistency as well as students attendance to the class (Wilder, Flood, & Stromsnes, 2001).

In addition, McDaniel et al. (2007) reported that incorporating frequent tests in the course helps students remember the classroom materials in higher volume. Since testing allows students to have an additional exposure to the materials (Butler & Roediger, 2007a).

Frequent testing also encourages students to increase their frequency of study by making them revise materials periodically for the test (Karpicke & Roediger, 2007).

Trumbo, Leiting, McDaniel, and Hodge (2016) and Leeming (2002) assert that frequent testing not only helps students to improve their retention of materials but it also helps students to lower their testing anxiety by familiarizing them with both tested and non-tested content. The impact of test anxiety on students' learning is reported by Cassady and Johnson (2002). They claimed that the test anxiety has a negative impact on students' performance. Their finding shows that the students with higher level of anxiety scored less compared to those students with a moderate level of test anxiety.

On the flip side, Wooldridge, Bugg, McDaniel, and Liu (2014) expressed reservations about the idea of frequent testing and its positive impacts on higher retention of the classroom materials. They argued that the idea was not applicable unless the tests done during the course and the final examination include the same items. Haberyan (2003) also recounted on having no significant difference between the group with frequent testing and a group without.

In addition, a meta-analysis study by Bangert-Drowns et al., (1991) on the effect of frequent testing in the classroom towards the students outcome showed that out of 35 studies taken for the analysis, 29 studies claimed that frequent testing relatively had a positive effect on students' outcome whereas the other 6 studies claimed the effects as negative or neutral.

Related Studies

There are many studies on the effects of formative assessment on students' performance. For instance, William et.al., (2004) investigated the effect of formative assessment practice in the classroom on learners' final achievement. The participants were 35 teachers from different schools in the UK; 21 teachers in the experimental group used formative classroom and 24 teachers in the control group did not. The teachers in the experimental group taught a total of 362 students and those in the control group taught 376 students. Both groups of teachers took classes for one year in their respective institutions. The result revealed that the students of the experimental groups performed better than the students in the control group. The researchers concluded that formative assessment, in general, helped learners to increase their final grades.

Similarly, Gholami and Moghaddam (2013) explored the impact of the frequent formative assessment on students' final achievement, 70 second-grade high school students participated in the study. The students were divided into two groups and were assessed differently. The experimental group received a weekly quiz test and the control group took the only summative assessment, the midterm examination. The result revealed that the scores of the group who took weekly quizzes were significantly higher than those who did not take quizzes.

In addition, Padilla-Walker (2006) examined the impact of daily extra credit quizzes on students' final performance. The participants were 36 undergraduate students of Midwestern State University taking advanced seminar course. The students met their teacher twice a week and were given extra credit quiz each day. The result of the study revealed that there was a significant improvement in the students' final performance. The finding also suggested that daily quiz increased students' regularity in learning classroom materials.

Roediger, Agarwal, McDaniel, and McDermott (2011) examined the effect of formative assessment on students' retention. A total of 142 sixth-standard students participated in the study. Students were divided into two groups. The experimental group received a series of classroom assessment (quizzes) and the other group received none. It was found that the students who received quizzes during the course performed relatively high in their final scores as well as in their retention test compared to the group with no quiz.

Furthermore, a positive acknowledgement from the participants was reported. Brookhart (2001) investigated the students' perception towards the formative and summative assessment practice in the classroom. Participants for this study were 990 high schools' students in the USA. Almost all participants were academically successful ones. The data were collected through interviews. The result revealed that most of the students felt the importance of assessment in learnings. Since it enabled them to revisit, master and learn the classroom materials in higher frequency. However, the finding could not reveal whether the students preferred formative or summative assessment. It suggested that assessment in general is effective in learning and for better learning outcome.

As discussed so far, although there are many previous studies on the effect of frequent testing on students' performance, the findings are still inconclusive. In addition, there was no study that looks at the interrelationship between frequent testing and students' final performance in Thailand.

Objectives

This research aimed to investigate the effects of using unit tests on students' midterm and final performance and to investigate the interrelationship between students' unit tests scores and final scores (midterm and final examinations) on vocabulary and grammar.

Research Questions

This study was designed to answer the following research questions.

1. Is there any difference in performance in the midterm and final scores between the participants who receive frequent tests and those who do not?
2. Is there any relationship between the students' vocabulary and grammar's unit test scores with their midterm and the final scores?

Materials and Methods

1. Participants

A total of 50 second year certificate vocational students of two intact classes from Songkhla Vocational College in Thailand were recruited as participants for this study. The majority of the participants were females, with 42 females and 8 males of 15-17 years of age. All the participants were taking English course with a textbook entitled *English for Life*, consisting of 10 units in their second semester, 2017 academic years. The participants were assigned based on their English Grade Point Average (GPA) to the experimental and control group, with 25 students in each group. Both groups were comparable in terms of language proficiency as reflected by their average GPA ($\bar{X} = 2.54$, S.D = 0.71) and ($\bar{X} = 2.56$, S.D = 0.70) for the experimental and control group respectively.

2. Research Instruments

2.1. Unit Test

Ten unit tests used were based on the 10 units of the course textbook, *English for life* (Hutchinson, 2003). Each unit test consisted of 25 items, 15 vocabulary and 10 grammar items. All the items were in the form of gap-filling and matching. The tests were developed by the researcher and checked by three qualified research committee members to establish its validity. The test was administered to the test takers after the completion of each of the 10 units of the course, five unit tests before the midterm and five unit tests after the midterm exam.

2.2. Midterm and Final examination

The course's midterm and the final examinations developed and administered by the institution were used to represent the participants' achievement on the course, their final performance on the course. The midterm examination comprised units 1- 5 and the final examination comprised of unit 6 – 10. Both the midterm and final examinations had 40 items of various parts i.e. vocabulary, grammar and reading comprehension, in the form of multiple-choice and gap-filling. Only the vocabulary and grammar parts were used in this study. The midterm examination was administered in the middle of the semester after the completion of units 1 – 5 and the final examinations towards the end of the semester after the completion of units 6 - 10.

3. Data Collection

The study was conducted in the second semester of 2017 academic year (October 2017- February 2018). The data were collected in the following steps.

1. Both the experimental and control groups were taught 5 units (units 1-5) by the class teacher, the researcher. Both groups received 2 hours' instructional time per week in different class settings. However, the type of assessment received by the two groups was different. The experimental group was given a 20-minute unit test after the completion of each unit of the course. The test participants were informed of their test scores and subsequently, feedback on the test items was given. The control group didn't receive any unit tests.

2. In December after the completion of unit 5, the midterm examination was administered to both the experimental and control group. Also, the attendance of the participants in both groups was recorded for the whole semester.

3. Both groups were taught another 5 units (units 6 – 10) from the same course. The experimental group was administered a 20-minute unit test after each unit of the course. Then, towards the end of the semester, in February after the completion of unit 10, the final examination was administered to both groups for the course evaluation.

4. Data Analysis

Data obtained from the unit tests and the midterm and final examinations were analyzed and interpreted to answer each research question. A descriptive analysis such as mean and standard deviation was used to compare the midterm and final examinations scores of both the experimental and the control group. Then, an independent sample t-test analysis was used to identify the difference in the midterm and the final scores of the two groups. Pearson correlation coefficient was also used to analyze the relationship between the unit test scores and the midterm and final examinations scores.

Results

This section contains the results of the study, arranged based on the 2 research questions.

Research Question 1: Is there any difference in performance in the midterm and final scores between the participants who receive frequent tests and those who do not?

To answer the first research question, the participants' scores on the midterm and final examinations were analyzed as shown in Table 1 below.

Table 1. Experimental and control groups' performance on midterm and final exam

Groups	Midterm Scores		Final Scores	
	Total = 25 scores		Total = 25 scores	
Experimental (n = 25)	\bar{X}	S. D	\bar{X}	S. D
	14.56	4.50	16.00	4.10
Control (n = 25)	11.88	3.74	13.42	3.70
Difference (D)	2.68*	0.76	2.58*	0.4

* significant at the 0.05 level

As reflected in Table 1, the difference between the average mean scores of both the midterm and final examinations for the experimental group and control group was significantly different ($D = 2.68$ and $D = 2.58$, respectively). The participants' midterm scores analysis showed the average mean scores ($\bar{X} = 14.56$, $S.D = 4.50$) and ($\bar{X} = 11.88$, $S.D = 3.74$) for the experimental group and control group respectively. The experimental group who received frequent tests (unit tests) during the course performed significantly higher in the midterm examination than the group with no unit tests. They scored 2.68 higher than the control group.

Similarly, the average mean scores in the final examinations of the experimental group ($\bar{X} = 16.00$, $S.D = 4.10$) was significantly higher than that of the control group ($\bar{X} = 13.42$, $S.D = 3.70$). The average score of the experimental group was 2.58 higher than the control group. Interestingly, they performed consistently better in both the midterm and final examination.

Apart from helping participants to improve their academic performance, data collected on class attendance also showed that unit tests helped increase the class attendance of the participants in the experimental group. The average class attendance of the experimental group and the control group were 93.09% and 81.82% for the whole semester. In addition, the frequent conduct of tests enabled participants in the experimental group increase their study hours for the assigned course. The average time spent per week on the course reported by 25 participants in the experimental group was almost an hour more than the average time spent by the participants in the control group. The average time spent reported by the control group was low as they revised the materials only before the big tests (i.e. midterm and final examinations).

Research Question 2: Is there any relationship between the students' vocabulary and grammar's unit test scores with their midterm and the final scores?

To investigate the relationship between the unit test scores and the midterm and final examinations scores, the unit tests scores and the midterm and final examinations scores of the 25 participants in the experimental group were taken for analysis. Table 2 A shows the relationship between the unit tests scores and the midterm examination scores. Table 2 B shows the relationship between the unit tests scores and the final examination scores.

Table 2 A. Intercorrelations between unit tests score and the midterm score

	Midterm
unit Test	.781**

** significant at 0.05 level

Table 2 B. Intercorrelations between unit tests score and the final score

	Final
Unit Test	.731**

** significant at 0.05 level

As shown in table 2, there was a strong correlation between the unit tests scores and the midterm and final examination scores. The intercorrelation analysis between unit tests scores and the midterm and final examinations scores was $r = .781$ and $r = .731$ respectively ($p < 0.05$). Those who scored high in the unit tests would also score high in the midterm score and final score and vice versa.

Discussion/Conclusion

The findings of this study can be summarized based on the research questions.

1. The general findings of the current study suggest a positive impact of frequent assessment on participants' academic performance. The study revealed that the use of frequent tests in the course helped participants in the experimental group have better final academic performance. The participants in the experimental group outperformed the control group in both the midterm and final examinations. The result was in line with Nguyen and McDaniel (2014); Gholami and Moghaddam (2013) and Roediger et al. (2011) who

claimed that frequent quizzes helped students perform better than those who did not take quizzes.

In addition, the feedback on the test items the participants received after each unit tests seems to equally play an important role in participants learning. The finding was in consistent with some previous studies reporting that the feedback helped students identify the flaws in learning and overcoming them accordingly (Cauley & McMillan, 2010)..

2. The result revealed a strong correlation between the unit tests scores and the midterm and final examinations scores. The students who scored high on the unit tests consistently scored high on the midterm and final examinations. This finding seems to suggest that the participants who performed well in frequent assessment could benefit more.

3. The frequent tests in the course helped participants increase the amount of time put in to study the target lessons. It was found that the group who received frequent testing studied almost an hour more than the control group per week of the semester. The result is in line with many studies Karpicke and Roediger (2007) and Wilder.et.al. (2001) who posited that frequent assessment increases students' revision of the classroom materials. Furthermore, the current study also revealed that the frequent testing increased participants' class attendance. This finding was similar to that of Padilla-Walker (2006) who reported that the frequent quizzes in the course increased the students' regularity to the class.

The finding of this present study suggests that the integration of the frequent test in the course may be beneficial in EFL classroom to help improve the academic performance of the students. For future research, to confirm the findings of this research, further research is needed on the other aspects of language besides vocabulary and grammar, and research in different class settings before a conclusion can be drawn on the impact of frequent assessment.

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**Paper 2: The Roles of Frequent Testing on Students' Knowledge Retention and
Students Perception of Frequent Testing.**

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Abstract

Retention of classroom materials has been an immediate concern of teachers for it defines the learning outcome of learners. Different approaches have been shown in many studies to help improve learners' retention. This current study was carried out to add more robust evidence on the improvement of learners' retention ability through frequent testing. The study was experimental; two groups of participants were involved in the study. The instruments were the learning achievement test (midterm and final examination) and the retention test. The experimental group received tests after each unit of the course while the control group did not. Both groups took a retention test two weeks after the final test. The experimental group's scores were relatively consistent between the learning achievement test and the retention test while the control group scored significantly lower in the retention test. This finding suggests that integration of frequent testing throughout the course helped learners retain the classroom materials to a greater extent. Further, the participants acknowledged that frequent testing had a positive impact on their academic performance. Therefore, frequent testing should be implemented in the classroom to help learners retain what they have been taught.

Keywords: frequent testing, final performance, retention, perception of frequent testing.

The roles of Frequent testing on Students' Knowledge Retention and Students'

Perception of Frequent testing.

Introduction

Importance of Frequent Testing.

Testing is a process of integrating a short written or oral test into the course by the teachers to help reveal ones teaching strategies and learning materials, most importantly, to learn the learners' progress of learning (McDaniel, Anderson, Derbish & Morrisette, 2007). Therefore, the tests are found commonly used in the classrooms as a fundamental tool to help improve the classroom materials and learners' retention ability (Brown, 2005; Karpicke & Roediger, 2007). However, conventionally, the conduct of tests tentatively seems to differ from institution to institution based on their own beliefs and practices, be it in a school, college or university. Some institutions have a belief that more tests help learners yield a better academic score (William, Paul, & Black, 2011) while others claim that a test alone has a small role in the learners' academic performance (Haberyan, 2003).

Correspondingly, the resultant impacts caused by the periodic tests on teaching and learning behaviors in the classroom is defined as the effect of testing or *testing effect* (Alderson & Wall, 1993; Bailey, 1996; Ghorbani, 2017). It is widely interpreted as either '*backwash*' or '*washback*' in an educational field. The *washback effect* is, however, uncertain as it can either result in positive or in a negative way (Alderson & Wall, 1993). Therefore, the washback effect is still inconclusive with a diverse and inconsistent claim from different researchers. Moreover, the paradoxical nature of the washback effect or the effect of testing has gained a lot of attention from the researchers over the past few decades (Nguyen & McDaniel, 2014).

For instance, psychological researchers have pointed out that the repeated testing helped learners retain classroom materials in a greater quantity since testing itself involved considerably greater effort to retrieve the materials (Larsen, Butler & Roediger, 2008). In other words, frequent testing helped learners increase their learning regularity by encouraging them to learn more for the tests (Padilla-Walker, 2006). This frequent retrieval practice for the tests enabled learners to have their long-term retention ability of classroom materials improved (Butler and Roediger, 2007). Additionally,

Wooldridge, Bugg, McDaniel, and Liu (2014) commented that frequent testing helped improve the learners' learning ability, with increased retention accuracy of learned materials. It was further supported by Trumbo, Leiting, McDaniel and Hodge (2016), they reported that frequent testing could help learners get familiarized with the conceptually related contents and enhanced their academic performance.

In addition, a number of research studies have claimed that even learners have firmly conceded to the positive effects of frequent testing in their learning. For example, Siddiqui, Mannan and Mannan (2017) posited that 84% of their participants agreed on the positive effects of frequent testing in their learning. The participants who received frequent testing found it beneficial to improve their learning performance. Similarly, Thirey (2016) and Vaessen et al. (2017) reported that the majority of their participants who were involved in repeated testing in their study had responded positively on the effect of frequent testing and its relationship with their final academic performance.

In contrast to what has been pointed out on the positive effects of frequent testing in the classroom, some researchers (e.g. Karpicke & Roediger, 2007) rejected the assumption that frequent testing helped learners improve their retention ability and the final academic performance. For them, frequent testing is a cause of poor quality education. They claimed that frequent testing directs students' efforts more towards the test performance or test score in lieu of learning. Besides that, Bangert-Drowns et al. (1991) and Mines (2014) commented that frequent testing is a waste of time; if the test doesn't have any positive effects on learners' learning performance, valuable instructional time is wasted. The use of frequent testing in the classroom was further discouraged by the meta-analysis of Başol and Johanson (2009), which stated that frequent conduct of tests showed no significant improvement in the learning performance of the learners.

Furthermore, a meta-analysis study by Bangert-Drowns et al., (1991) on the effect of frequent classroom testing on learners' final performance showed that out of 35 studies taken for the analysis, 29 studies claimed that frequent testing has relatively a positive effect on the learners' learning outcome, whereas the other 6 studies demonstrated a negative or neutral effect. From what has been discussed so far, it seems that research has shown inconclusive effects of frequent testing in relation to the

learners' retention ability and the final academic performance. Therefore, this current study was intended to find the impact of frequent testing on learners' final learning achievement tests through their retention ability of classroom materials, as it's entirely explicable that the amount of material retained defines the learners' overall learning achievement performance. It should be noted that final academic performance and learning achievement performance are interchangeably used throughout the paper and serves the common purpose. Further, to bring more robust conclusion on the effects of frequent testing, this study may also demonstrate the effect of frequent testing on retention ability of students with different levels of language (English) proficiency.

Frequent Testing and Retention

Frequent testing has been defined and interpreted in numerous ways based on the conduct of the test and allotted time intervals for the tests (Gholami & Moghaddam, 2013). For instance, according to Kling, McCorkle, Miller and Reardon (2005), frequent testing is a formative test which is administered on a *monthly* basis while earlier researchers have defined it as a routine test done in a *weekly* (Keys, 1934) and *daily* (Dineen, Taylor & Stephens, 1989) basis to assess learners progress in learning. Prior to its definitions put in by different expertise, it should be noted that frequent testing here is a formative classroom-based test. Integrated with a focus to serve the common objective of testing, to help learners master the learned materials for the final learning achievement tests. The most common forms of frequent testing used are short quizzes (e.g. multiple choice questions, gap-filling and short answer questions) (McDaniel, Anderson, Derbish & Morrisette, 2007).

In short, frequent testing is a classroom task in which each individual learner must be interested in to learn the enrolled course, in doing so, it helps them motivate to learn more than their actual practices (Brown, 2005). In fact, frequent testing has been found used as one of the primary strategic choices by educators, for its major contributions to learners' learning ability (McDowell et al., 2011) and learning consistency, determined by the number of materials they revisit both inside and outside the classroom (Wilder, Flood, & Stromsnes, 2001).

Consequent to the facts and claims adduced by different researchers on the significance of frequent testing and its contribution to learning. It has further come to our attention that longer retention of classroom materials is one of the major contributions of frequent testing (McDaniel et al., 2007), as it gives learners an additional exposure to the materials (Butler & Roediger, 2007a).

There have been many studies which examined the impact of frequent testing on learners' retention in different subjects and different domains of human psychology. For example, Roediger and Louis (2014) investigated the relationship between frequent testing and long-term retention of language reading with 120 undergraduate students aged 18 – 24 years. The retention test was done on the reading courses designed specifically for the study. The finding showed that repeated reading relatively improved the participants' ability to remember the reading materials. This shows that retention ability can be improved with increased frequency of classroom tests. Eventually helping learners to have better final academic performance.

Furthermore, Butler and Roediger (2007) reported that frequent conduct of tests helped students retain the lecture materials that have been taught in the classroom to a greater extent. The sample of the study was 27 undergraduate students. The study carried out in a simulated classroom setting. To examine the participants' ability to retain the classroom lecture materials, they were given tests frequently on lecture materials through multiple choice questions and short answer questions. Additionally, after having checked students' answers to the tests, they were given feedback on the answers by the instructor in both multiple-choice questions and short answer questions. In so doing, the result revealed that frequent testing on the classroom lecture materials improved the students' retention of said materials. Perhaps the repeated quiz tests (frequent testing) after the lecture may have given students additional exposure to the materials, that further help them to remember more of the lecture materials.

Carpenter, Pashler and Cepeda (2009) investigated the relationship between frequent testing and retention ability of students. A total of 75 8th grade students participated in the study. The participants were assessed on U.S history facts. The facts were reviewed in two ways: restudying and through testing. The retention test was administered sixteen-weeks after the day of the treatment. The result revealed that

students can significantly remember U.S history facts which were reviewed through testing compared to the restudied materials. The researchers claimed that testing significantly improved the retention ability of students.

Recently, a meta-analysis by Adesope and Trevisan (2017) on the benefits of testing in learning and long-term retention confirmed that repeated testing of the learning materials is beneficial in recalling learned information and significantly improves long-term retention. They reviewed 118 experimental studies which examined the difference in final performance between the participants under the practice of testing and non-testing. The findings from their meta-analysis concluded that testing help enhances learners ability to learn, irrespective to its classroom settings (classroom-based or laboratory-based). They have also stressed on the variation of impact on the different level of students. They came up with the conclusion that testing, in general, is robust and help enhance learning in all educational level, albeit having slight differences in effect size. The testing effect after investigating various studies and their adduced claims, the *effect size* of tests was found comparatively stronger for the secondary students compared to those of primary and postsecondary students.

Besides convergent conclusion from various studies and their findings on the positive effect of frequent testing in learning and retention ability, a study conducted by Wooldridge, Bugg, McDaniel and Liu (2014) found that frequent testing was not applicable and did not help in enhancing learners' retention ability unless the test items are repeated. They claimed that the students could retain more only if the items of retention tests and classroom formative tests are identical. It is therefore notable that we need to take various factors associated with testing into an account before we claim that frequent classroom tests yield a positive outcome.

One of the primary factors that the educationists should be concerned is test anxiety that students experience while in the evaluative state. In fact, it has been a fundamental interest of researchers who gauge the insight impact of test anxiety towards learning and academic performance (Cassady & Johnson, 2002a). Therefore, in order to have a clearer picture on the frequent testing and its effects in learning outcome, it has been essential for us to simultaneously understand the role of *test anxiety* while giving tests to the learners. Perhaps, knowing learners' opinion on test

anxiety may bring a clearer picture of how beneficial is frequent testing in learning. For this reason, the current study also aims in learning students' perception towards frequent testing and associated test anxiety to better understand the insight of frequent testing.

Test Anxiety and its Role in Learning

Apparently, the test anxiety is believed to be caused by the activation of nervous system while in the evaluative state; it is also defined as an emotional reaction caused by distasteful feelings of inhibition, stress, and nervousness (Guida & Ludlow, 1989). Some common subjects of discussion on anxieties were *Facilitative* and *Debilitative* anxieties. These two anxieties are, however, juxtaposed by its definition. A firmly positive anxiety, which is, felt by an individual before performing any task is defined as a *facilitative* anxiety, whereas the anxiety felt by the person while he/she is in action, which negatively affects the individual performance is a *debilitative* anxiety (Walsh, Engbretson, & O'Brien, 1968, as cited in Carrier, Higson, Klimoski, & Peterson, 1984). This two inconsistent sides of an anxiety shows that learners may experience either positive or negative test anxiety. For this reason, it's imperative for us to learn the nature of test anxiety that may affect the learners' performance directly or indirectly.

Many studies have investigated the relationship between test anxiety and the learners' academic performance, through a series of classrooms formative tests. For example, a study conducted by DordiNejad et al. (2011) on the impact of test anxiety on students' academic performance showed that students with higher test anxiety were negatively affected, with comparatively low scores than the students with lower test anxiety. In fact, it was long affirmed by Cassady and Johnson (2002) that the students with higher test anxiety were mostly expected to score low compared to those with lower test anxiety. It was reported that the *debilitative* test anxiety, which learners experienced when in an evaluative state, adversely affected their test scores. Although the effect of test anxiety on an individual learner and its resultant negative costs are broadly accepted by different scholars. Paradoxically, a few studies (e.g. Chin, Williams, Taylor & Harvey, 2017) claimed that test anxieties are occasionally *facilitative* and are advantageous to the individual, since it helps learners prepare well and brace themselves for the tests.

Interestingly, with the accessible references on the relationship between test anxiety and learners' academic performance; it seems that repeated testing helps lower learners' test anxiety and improve their tests performance (Ghorbani, 2017). Additionally, Leeming (2002) and Ghorbani (2017) claim that frequent testing help learners lower their test anxiety by making them familiar with the nature of tests and test anxiety. Thus, this strongly exhibits the essence of frequent testing in reducing *test anxiety*, which could be the most impactful factor in the field of formative testing. Therefore, to bring a complete picture of the test anxiety and its impact on learners, a relationship between test anxiety and frequent testing will be also investigated.

Importance of Vocabulary and Grammar in Language Acquisition

Second language educators have investigated in various aspects of language to improve learners' retention ability and their academic performance, by using frequent formative tests as a tool. Some of these includes retention of reading materials, classroom lecture, vocabulary, grammar and so forth. For the current study, the learners' retention ability will be determined by the two aspects of English language, which are retention of vocabulary and grammar knowledge.

The first aspect of language for the current study is vocabulary because it is believed to be one of the most essential components of language in the field where language is acquired as a second language (L2). Indeed, it is commonly moniker as the heart of language acquisition (Coady and Huckin, 1997) as it defines the learners' mastery in the target language (Knight, 1994). A good lexical knowledge of any language enables learners to master the target language and help improve their communicative skills (Schmitt, 2008). Additionally, Alqahtani (2015) reported that learners can acquire the target language only through acquiring its corresponding vocabulary, the researcher also suggested that both teachers and learners must know the essence of vocabulary knowledge for successful acquisition of the target language (L2).

In addition, the syntactic knowledge of language has been given an additional importance as it helps ease language acquisition (Attapan, 2002). By acquiring a good syntactic knowledge of the target language, learners are likely to increase their language comprehension skills with an extended output. Therefore, the knowledge of grammar

carries and equal weight as that of vocabulary for better and accurate language learning outcomes (Pradeep & Debata, 2013).

In addition, Loewen et al. (2009) reported that learners' inadequate accuracy in a target language, in spite of several years exposures to the target language, is because of poor opportunities to practice it. Most importantly, they also pointed out that there is a huge correlation between the vocabulary and grammar knowledge of language and the language learning achievement, particularly, in the field of second language (L2) acquisition. The fact that repeated testing help learners to have more opportunities to practice the target language through a frequent retrieval practice of the learned materials. Therefore, repeated tests in the classroom serve as a platform to help learners practice the target language more, thereby easing them to acquire the language.

Research Questions

This study was designed to answer the following research questions. Therefore, all the findings of this quasi-experimental study will be discussed based on the following questions.

1. Do classroom-based frequent testing help students have greater retention of the classroom materials?
2. How do the students perceive frequent testing and the role of test anxiety in learning?

Methodology

Participants

A total of 50 second-year certificate vocational students of two different classes from Songkhla Vocational College in Thailand were purposively recruited as participants for this study. They were divided into two groups, each group comprising of 25 students. The majority of the participants were females, with 42 females and 8 males of 15-17 years of age. All the participants were taking a general English course with a textbook entitled *English for Life*, consisting of 10 units in the second semester of the 2017 academic year. Both groups were comparable in terms of language proficiency as reflected by their previous year English average GPA ($\bar{x} = 2.54$, S.D = 0.71) and ($\bar{x} = 2.56$, S.D = 0.70) for the experimental and control group respectively. The participants in both the experimental and control groups were further divided into high and low proficiency groups based on their English Grade Point Average (GPA of 3-4 = high, GPA of 1-2 = low).

Research Instruments

2.1. Unit Test

Ten unit tests were used based on the 10 units of the course textbook, *English for life* (Hutchinson, 2003). Each unit test consisted of 25 items, 15 vocabulary and 10 grammar items. All the items were in the form of gap-filling and matching. The tests were developed by the researcher themselves. The test was administered to the test takers after the completion of each of the 10 units of the course, five unit tests before the midterm and five unit tests before the final.

2.2. Midterm and Final Test

The course's midterm and final examination developed and administered by the institution were used to represent the participants' achievement in the course. The midterm test comprised of units 1- 5 and the final test comprised of units 6 – 10. Both the midterm and final tests had 40 items of various parts i.e. 20 vocabulary items, 10 grammar items, and 10 reading comprehension items, in the form of multiple-choice and gap-filling. The midterm test was administered in the middle of the semester after the completion of units 1 – 5 and the final test towards the end of the semester after the completion of units 6 - 10. But, for this study, only the scores of vocabulary and grammar parts were considered for analysis.

2.3. Retention Test

The items for the retention test were randomly taken from the vocabulary and grammar parts of the midterm and final tests, 25 items from each. It consisted of 30 vocabulary items, 15 from the midterm and 15 from the final, and 20 grammar items, 10 from each midterm and final.

The retention test was used to investigate how much each group could retain the learned materials from the lessons taught before and after the midterm with different retention time intervals. It was administered to both groups two weeks after the administration of final test and 3 months after the midterm test.

2.4. A Questionnaire

A 5 point Likert-scale questionnaire consisting of 15 items ranging from strongly disagree (1) to strongly agree (5) was administered after the treatment to assess the experimental group's perception of the use of frequent testing in the classroom. The questionnaire was adapted based on Vaessen et al. (2017). For interpretation, the values 1 to 1.80 indicate "strongly disagree", 1.81 to 2.60 "disagree", 2.61 to 3.40 "Neutral", and 3.41 to 4.20 "agree", 4.21 to 5.00 "highly agree" respectively (Pongvichai, 2008).

The questionnaire was divided into two parts: part one including 8 items on the effect of frequent testing and part two with 7 items on the role of test anxiety in learning.

Data Collection

The study was conducted in the second semester of the 2017 academic year (October 2017- February 2018). The data were collected in the following steps.

1. Five units (units 1-5) were taught to both the experimental and control groups by the researcher, their class teacher. Both groups received 2 hours' instructional time per week in different class settings. The experimental group was given a 20-minute unit test after the completion of each unit of the course. The experiment group was informed of their test scores and subsequently, corrective feedback was given on the test items. Whereas, the control group didn't receive any unit tests other than other forms of feedback on their grammar and vocabulary development (e.g. assignments and homework).

2. After the completion of unit 5, the midterm test was administered to both the experimental and control groups as scheduled by the institution.

3. Both groups received another five lessons (units 6 – 10) after the midterm test. Similarly, the experimental group took a 20-minute unit test after each unit (6-10) of the course while the control group carried on with their assignments and homework as a part of vocabulary and grammar developmental tasks. Then, towards the end of the semester, after the completion of unit 10, the final test was administered to both groups.

4. A questionnaire consisting 15 items was administered to the experimental group right after the final test to see the participants' perception of the use of frequent testing in the classroom and the role of test anxiety in learning.

5. Two weeks after the final test, both groups (experimental and control groups) took the retention test consisting of 30 items on vocabulary and 20 on grammar.

Data Analysis

Data obtained from the midterm, final and retention tests and questionnaire were analyzed and interpreted to answer each research question. First, a descriptive analysis of mean, standard deviation and t-value of paired sample t-tests was used to describe the participants' performance in the midterm, final and retention tests. Then, the participants' responses to each item in the questionnaire was analyzed for mean and standard deviation to determine their perceptions of frequent testing in the classroom and the role of test anxiety in learning.

Results

The analysis of the overall learning achievement (midterm and final) and the retention performance in vocabulary and grammar of the experimental and control group is represented in Table 1 below.

Table 1 Participants' final achievement (midterm and final) and the retention performance.

Groups (N)	Learning achievement		Retention score		t-value	2-tailed sig.
	Mean (\bar{x})	SD	Mean (\bar{x})	SD		
Experimental (25)	30.56	8.60	30.04	9.32	.260	.796
Control (25)	25.30	7.44	19.84	6.05	3.765	.001*

* significant at the 0.05 level

As reflected in Table 1, the mean score of the overall learning achievement (midterm and final examination) of the experimental and control groups in vocabulary and grammar are 30.56 and 25.30, respectively. The experimental group, who received unit tests, significantly outscored the control group, who did not receive unit tests in the course. Meaning that frequent testing helped improve the experimental group performance in their learning achievement test (midterm and final).

In terms of retention, the experimental group seemed to have retain the classroom materials more compared to the control group. The result shows a significant difference in the mean scores of the retention test. The retention score of the experimental group was 30.04 (SD = 9.32) and that of the control group was 19.84 (SD = 6.05).

Evidently, the positive effect of frequent testing on long-term retention of classroom materials can be further elaborated by comparing the participants' overall learning achievement score of the course, which is their midterm and final tests score with that of their retention score. In so doing, it was found that the overall learning achievement score and retention score of participants in the experimental group had comparatively the same score in average, with no statistic significant difference. This suggests us that frequent testing did help the participants in the experimental group retain almost all the classroom materials that they have learned for the midterm and the final tests. On the contrary, a significant decline in the retention score was observed for

the control group when it was compared with their learning achievement tests scores (midterm and final scores). They scored relatively low in their retention test taken after the final test, indicating their failure to retain the classroom materials that they have learned in the classroom for both the midterm and final tests. The significantly low retention scores of the participants in the control group could be due to the lack of insufficient retrieval practice in the classroom.

Retention performance of participants with different English proficiency levels.

Furthermore, to learn the insight of frequent testing and its relationship with learners' retention ability, a detailed comparison of retention score was made among the participants of different language proficiency levels in both groups (experimental and control group). In order to see how well the two groups comprising of indifferent language proficiencies have retained the classroom materials that they had learned for the midterm and the final tests. The two most interesting parts of this section were: investigating the relationship between the *participants' language proficiency* and their *retention ability* after receiving frequent testing, and the relationship between the *retention time intervals* and the *participants' retention ability* after receiving frequent testing. It should be noted that both groups received the retention test 3 months after the midterm test and 2 weeks after the final test. The findings may help us explore more on the effects of frequent testing on retention with respect to the participants' language proficiency (high and low language proficiencies) in both groups, taking two different retention test scores of different retention time intervals. The analysis is presented in Table 2.

Table 2 Retention scores with different retention time intervals

		Learning Achievement							
		Midt erm Score = 25 (\bar{x})	Retent ion Score = 25 (\bar{x})	t- value =	2- tailed sig.	Final Scor e = 25 (\bar{x})	Retent ion Score = 25 (\bar{x})	t- value =	2- tailed sig.
Exper iment al	High	18.37	18	.275	.791	19.87	18.38	1.323	.277
	Low	12.12	12.05	-	.803	14.25	13.75	.342	.743
				.258					
Contr ol	High	15.12	10.75	2.895	.023**	17.12	11.62	3.610	.009*
	Low	11.25	6.37	4.754	.002*	12.37	7.87	6.874	.000*

*significant at 0.01 level

** significant at 0.05 level

The fact that the retention test was taken 3 months after the *midterm* test, which is comparatively longer than 2 weeks' retention time intervals for the final test. Thus, in order to establish a realistic time interval for the participants to retain the classroom materials, this section compares only participants' midterm test scores and their retention test scores. In doing so, surprisingly, for both high and low proficiency groups in the experimental group; there was no significant difference between the midterms mean scores and their retention mean scores. The participants of the high group scored 18.37 out of 25 in the midterm test and 18 in the retention test, a non-significant decrease of .37 (18.37-18). This was the same case with the low group participants. They scored 12.12 in the midterm test and 12.05 in the retention test, again a non-significant decline, albeit the markedly low score compared to the participants of high proficiency group, and it comes as no surprise to us. More interesting was that both the high and low proficiency participants in the experimental group managed to retain almost all of what they had learned for the midterm test, prior to 3 months' retention time interval. Therefore, this finding suggests us that frequent testing enabled

participants of both high and low proficiency levels to remember the materials learned for a longer time, irrespective to their language proficiency.

On the flip side, the findings show a significant difference between the midterms means scores, and the retention means scores for both high and low proficiency participants of the control group. The control group's retention scores were significantly low when compared to their midterm scores. The average means scores of the high proficiency participants in the midterm, and the retention tests were 15.12 and 10.75 respectively, a difference of 4.37 (15.12-10.75) in average. Similarly, the average means scores of the low proficiency participants in the midterm, and the retention tests were 11.25 and 6.37, with the almost same difference to that of the high proficiency. A significant decrease in the retention scores was observed in both case, be it for high or low proficiency participants. The result evidently indicates that the participants in the control group who did not receive any frequent testing (unit tests) failed to retain the materials that they have learned for the midterm test.

Furthermore, the relationship between the retention time intervals and the participants' retention ability after receiving frequent testing was examined. For this, the retention scores that the participants in the experimental group had obtained in two different intervals of time (3 months after the midterm and 2 weeks after the final tests) were compared. In doing so, it was notably same on average in both case, there was no significant decrease nor increase in the participants' retention scores for two different retention tests. The participants in the experimental group could almost retain the same amount of the classroom materials that they had learned for the midterm and the final tests, irrespective to the retention time intervals (see Table 2). In other words, the longer retention time interval (3 months) has no effect on learners' retention ability, learners could remember almost the same quantity of the classroom materials that they could have remembered for the shorter retention time (2 weeks to be precise for this study). In addition, the finding of the present study suggests us that learners may tentatively able to retain the classroom materials up to the 3 months' retention time interval if they receive frequent testing in the classroom.

Participants perceptions on the use of frequent testing in the classroom

Table 3 summarizes the participants' perception of the use of frequent testing in the classroom; with focus to evaluate the two facets of frequent testing: *effect on learning* and the participants' perceptions on the *role of resultant test anxiety* in learning, but it should be further noted that each construct of the questionnaire represented the single factor. The first part of the questionnaire aims at finding how the participants perceive frequent testing in their language learning. This may give us a clear picture of frequent testing and to what extent the participants agree on having either positive or negative effect in their learning. The second part of the questionnaire aims at finding the participants' perception of the role of test anxiety. Since the test anxiety is one of the residues of testing, which is believed to have a greater impact in the field of the learning environment. Therefore, for better and robust result of frequent testing, educationist must understand the degree to which the learners accept the effects of test anxiety to their learning, be it negatively or positively. The analysis presented below.

Table 3 Experimental group's perception on frequent testing

Frequent Testing				
Items	(\bar{x})	SD	Levels of agreement	Interpretation
7. After knowing my grades for unit tests in the course, I started studying more	4.30	.70	Strongly Agree	Very Positive
8. I felt confident with the course when I was informed of my scores of unit tests	4.74	.68	Strongly Agree	
1. I need unit tests in the course to study regularly	4.17	.83	Agree	Positive
2. I need unit tests in the course to be motivated	4.00	.73	Agree	

4. I want my teachers to give us unit tests before mid-term and final examinations	4.04	.82	Agree	
5. Without frequent tests, I would have studied less during the course	3.48	1.08	Agree	
3. I think unit test during the course is a waste of time*	2.69	1.22	Neutral	Neutral
6. I think frequent testing did not help us prepare for the midterm and final examination*	2.91	1.04	Neutral	
Total	3.79	.88	Agree	Positive
Test Anxiety				
10. I felt nervous when I took the midterm/final examinations*	2.08	.94	Disagree	Negative
11. Frequent tests during the course were stressful*	2.08	.94	Disagree	
12. Before the unit test, I felt anxious*	2.43	.94	Disagree	
13. Before midterm and final examinations, I feel anxious*	2.08	.90	Disagree	
9. My test anxiety was reduced because I was given frequent tests during the course	3.87	.86	Agree	Positive
14. Before the midterm and final examinations, I feel confident that I will pass the tests.	3.65	1.02	Agree	
15. I think I can pass the midterm and final examination with better scores	3.74	.81	Agree	
Total	2.84	.91	Neutral	Neutral

*negative items adjusted

The first part of Table 3 shows the general overview of the participants' perception of frequent testing in the classroom. The participants who received frequent testing, on average, *agreed* to the importance of frequent testing in their learning ($\bar{x} = 3.79$, $SD = .88$). Meaning, they have perceived frequent testing as one of the fundamental driving factors to help enhance their learning ability and the final learning achievement performance.

Of eight items in the first part of the questionnaire, participants *strongly agreed* to two items (items 7 and 8). They *strongly agreed* that knowing their performance on the unit tests helped them study more (item 7, $\bar{x} = 4.30$) and boost their confidence with the targeted course (item 8, $\bar{x} = 4.74$). The knowledge of self-evaluation and progress of oneself in learning seem to help reshape the participants learning potential, by providing them a room to improve themselves from their errors or mistakes in the tests.

The participants' level of agreement to items 1, 2, 4, and 5 were within the range of *agreeing* level. Among these, they *agreed* that *students need frequent tests to make them study regularly* (item 1), and that *without frequent tests, they would have studied less* (item 5). They also *agreed* that *frequent testing helped them to stay motivated* (item 2) and that *teachers should give unit tests to the students before the midterm and final examination to have better test scores*. Unsurprisingly, the participants were *neutral* for the negative items (items 3 and 6). They were *neutral* with the fact that *frequent testing during the course is a waste of time* (item 3) and that *frequent testing did not help them prepare for the midterm and final examination* (item 6). This indicates that they were satisfied with the frequent testing given in the classroom. Above all, if we summarize the responses given by the participants on the use of frequent testing in the classroom, it's comprehensible to a certain extent that the participants agree upon having benefits of frequent testing in the classroom.

For the second part of the questionnaire, the participants' perception of the role of test anxiety in their learning was examined. The average means scores of the participants for the whole survey was found ranging from 2.08 to 3.87, in-between the levels of *disagree* and *agree*. In other words, the overall average means score of participants on the role of test anxiety in learning was *neutral* ($\bar{x} = 2.84$, $SD = .91$). Meaning, the participants neither agreed nor disagreed on the effects of test anxiety in

their learning. From seven items in this section, the participants *disagreed* to items 10, 11, 12 and 13. They *disagreed* that *frequent test is stressful* (item 11) and that *they were anxious before and while taking the tests* (items 11, 12 and 13). This indicates that the participants had relatively low or no test anxiety. However, not surprisingly, the participants *agreed* to the rest of the items (items 9, 14 and 15), which dealt with the positive effects of frequent testing in helping participants reduced their test anxiety; they agreed that *frequent testing helped them reduce their test anxiety* (item 9), and *improve their confidence to perform better in the next tests* (items 14). Most importantly, *to pass the midterm and final examination with better scores* (15). In short, the participants on average appeared to be agreeing less with the negative effects of the frequent testing and vice versa.

Conclusion and Discussion

The evidence gathered from various analyses of the present study shows that frequent formative tests in the classroom helped participants improve their final learning achievement scores with greater retention of the classroom materials. There was a significant difference in both the retention test scores and final learning achievement tests scores between the participants of the experimental and the control group. In both tests, the participants of the experimental group significantly outscored those participants of the control group who did not receive any unit tests. The primary reason for higher retention test scores of those unit tests receiver may be due to the frequent opportunity for rehearsal to recall the classroom materials, resulting in a greater exposure to the classroom materials. Repeated exposure to the classroom materials may have helped them obtain *frequency effects*, particularly the effects of token frequency where participants were exposed quite often to the same kind of words or phrases while having the unit tests (Ellis, 2002).

Another reason for a greater retention could be due to the continuum and fixed rehearsal for retrieving the classroom materials for unit tests after each unit of the course. In support of this approach, it is theoretically believed that greater retrieval practice leads to a better retention of that material which had been tested (McDaniel & Masson, 1985 cited in Butler & Roediger, 2007). In view of current findings, it is reasonable to conclude that frequent testing in general helped the participants improve

their retention ability with a better final learning achievement score. The findings are clearly consistent with the earlier studies (e.g. Butler & Roediger, 2007; Carpenter et al., 2009; Roediger et al., 2011; Roediger & Louis, 2014) that support the idea of frequent formative tests and its benefits in helping learners improve their retention ability.

Another robust finding of the present study was the effect of frequent testing on participants with different levels of language proficiencies. The result revealed that frequent testing is beneficial to all participants, irrespective to their language proficiency; neither high nor low proficiency participant had significant difference in their retention scores when compared to their final achievement scores. Both proficiencies participants could retain almost the same amount of materials that they had retained for the midterm and final tests. This means the effect of frequent testing on the retention ability to both high and low proficiency participants was comparable (see Table 2). The uniformity on the effect of frequent testing on both the high and low proficiencies could be the result of the taxing nature of the unit tests that demand a great effort and time for preparation before the tests (Corno & Mandinach, 1983). Eventually, helping learners expand their limit to intake the classroom materials.

The most plausible findings of this study were the relationship between the retention time intervals and the participants' retention ability after receiving frequent testing. It came as a surprise for us to learn the indistinguishable ability of the participants to retain the classroom materials, despite having incompatible retention gap for the midterm (3 months) and the final (2 weeks) retention tests. Showing a void relationship between these two facets: retention time intervals and the participants' retention ability. The result revealed that the participants could almost retain all of the classroom materials that they had learned 3 months before for the midterm test. The finding of the current study, however, contradicts with a study by Butler & Roediger (2007) that pointed out that 1 month is the realistic timescale over which students can retain the classroom materials. So, the surprising finding of this present study demonstrates an extended realist timescale of 3 months for which learners could probably retain the learned materials, provided they are given frequent formative tests to the classroom materials. Thus, the present study seems to suggest a non-existing

relationship between the retention ability and the retention time intervals. There was no significant difference in the retention scores of the participants for two different retention time intervals. Although, in general, frequent testing appeared to be strongly beneficial in improving learners' retention ability.

In addition, the participants of the present study agreed to the positive effects of frequent testing in learning. They found it beneficial in helping improve their retention ability and final learning achievement performance. The finding is in line with that of Siddiqui, Mannan and Mannan (2017) who stated that students had a positive attitude towards frequent testing and its resultant impacts. Besides, frequent testing seemed to help learners have greater exposure to the classroom materials and increase their learning regularity. This best supports the earlier study by Padilla-Walker (2006) and Wilder et al. (2001) who commented that frequent testing helped learners increase their learning consistency. Prior to what has been discussed above, it should be noted that not all learners would prefer having frequent tests in the classroom and not all learners would be benefited by frequent tests in the same manner. The findings here are based on overall responses given by the participants, not individual responses. We shall be aware that there may have a handful of learners who might not like having repeated tests in the classroom and who may reject the assumption of frequent testing and its positive effects. Nevertheless, it's fair enough to conclude that the participants of the current study on average did like frequent testing in the classroom.

Furthermore, the participants of the current study expressed their reservation on the negative effects of test anxiety in learning, rather they found it helpful and facilitative since it profusely helped them to remind and prepare themselves for the tests. So, the test anxiety that the current participants experienced on average was facilitative and advantageous. More remarkable finding was learning participants' responses in frequent testing helping reduce their test anxiety. With their responses, it seems that the repeated testing helps them gain additional familiarity with the content of the target course and the nature of tests. The fact that they already had a visual experienced with the tests and some of the questions that relates to the unit tests they had before, these further assisted participants lower their test anxiety for their midterm and the final tests. Consequently, helping them to perform better in their final learning

achievement tests. The results best supported the finding of Ghorbani (2017), who contended that frequent testing helped learners to lower their test anxiety and resulted in better academic performance.

In conclusion, the present study gives us a sheer reason to consider that frequent testing in the classroom help learners to enhance their learning ability, retention ability and the final learning achievement performance, regardless of their language proficiency levels. Besides that, the participants on average agreed upon having positive effects of frequent testing in the classroom; they found it beneficial in various aspects, such as, for reducing their test anxiety, preparing for the final learning achievement tests and improving their retention ability.

Implications and limitations.

The findings of the present study can serve as a powerful tool for motivating teachers in integrating frequent testing in the classroom. This is because, the present research has given us a clear evidence on benefits associated with the integration of frequent testing in the classroom. Frequent testing not only helps learners improve their retention ability and final learning achievement performance, but also equally helps teachers in various aspects, e.g. to assess their classroom materials, learners' learning progress, and to learn about their own teaching weaknesses and strengths. However, the nature of current research does not provide any evidence to prove that teachers were really helped by the conduct of frequent testing in the classroom. We can tentatively say that teachers may find frequent testing helpful for them, but hectic at the same time, as they need to put a lot of efforts in creating test papers and checking it.

The most plausible facts that this research has given us were that frequent testing was evidently beneficial to learners. With frequent testing, test receivers could enhance their retention ability and learning achievement performance significantly. This suggests us that learners if exposed to repeated retrieval practices could help them retain the classroom materials and increase their long-term retention ability. Furthermore, the research gave us the insight of retention timing to which learners may probably retain what they have learned. Participants of this study could retain the classroom materials that they had learned 3 months before. Although it may be valid to claim that 3 months is a realistic retention time interval over which learners can retain

the classroom materials, however, for future research, it would be more interesting to see the retention ability of learners with even more retention gap (e.g. six months).

The positive effects of frequent testing were further enlightened by investigating participants' responses to the use of frequent testing in the classroom. They, on average, agreed that frequent testing holds some benefits to their learning ability. This is because frequent testing allowed them to have greater exposure to the classroom materials, motivated them to study more and reduce their test anxiety.

By taking participants responses and the positive known facts of the frequent testing, teachers are therefore recommended to look closely on benefits of frequent testing and implement it in ESL or EFL language classes, where language is learned either as second language or foreign language. Based on the current findings, frequent testing would be more beneficial to postsecondary students aged 15-17 years, where they are matured enough to understand the importance of frequent testing in their learning. To minimize the workload of teachers or test providers, it would be better to have a test after every two units since some researchers have pointed out that frequency of tests doesn't matter unless the learners are exposed to retrieval practice. However, to learn an insight of testing effects, it is suggestable to have it balanced and at least maintain 1:2 ratio between the number of test to the number of units in the course.

However, for successful implementation of frequent testing in learning, the difficulty in preparing tests and assessing should be taken into consideration, for it requires a huge effort from teachers. In addition, to confirm the findings of the present study, further research is needed on the other aspects of language besides vocabulary and grammar, and research in different class settings before a conclusion can be drawn on the effect of frequent testing. Moreover, research on other subjects other than English language might help us gain more valuable insight of the relationship between frequent testing with learners' retention ability and their final learning achievement of learners.

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Manuscript 2: The Effect of Frequent Assessment on Language Development (*in press*).

Manuscript 3: The Roles of Frequent Testing on Students' Knowledge Retention and Students Perception of Frequent Testing (submitted).