**A Comparative Study of Multiple-choice and Error Recognition Tests:
Its Effects on Grammar Knowledge Development and
Test anxiety on Test Performance**

Nur-ihsaan Nihae

**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
2014**

Thesis Title   A Comparative Study of Multiple-choice and Error
Recognition Tests: Its Effects on Grammar Knowledge
Development and Test Anxiety on Test Performance

Author   Ms. Nur-ihsaan Nihae

Major Program   Teaching English as an International Language

_____

Major Advisor :   **Examining Committee :**

………………………………   ……………………..…..Chairperson
(Assoc. Prof. Dr. Thanyapa Chiramanee) (Dr. Sirirat Sinprajakpol)

………………………………………
(Assoc. Prof. Dr. Thanyapa Chiramanee)

………………………………………
(Dr. Usa Intharaksa)

       The Graduate School, Prince of Songkla University, has approved this thesis as partial fulfillment of the requirements for the Master of Arts Degree in Teaching English as an International Language

..……………………………………….
(Assoc. Prof. Dr. Teerapol Srichana)
Dean of Graduate School

This is to certify that the work here submitted is the result of the candidate's own investigations. Due acknowledgement has been made of any assistance received.

…….……………………….Signature

(Assoc. Prof. Dr. Thanyapa Chiramanee)

Major Advisor

…….…………………………Signature

(Ms. Nur-ihsaan Nihae)

Candidate

I hereby certify that this work has not been accepted in substance for any degree, and is not being currently submitted in candidature for any degree.

….………………………………Signature

(Ms. Nur-ihsaan Nihae)

Candidate

ชื่อวิทยานิพนธ์	การศึกษาเปรียบเทียบการใช้แบบทดสอบเลือกตอบและแบบทดสอบ
	ตรวจจับข้อผิด: ผลต่อการพัฒนาความรู้ทางด้านไวยากรณ์และ
	ความเครียดที่มีต่อการทำข้อสอบ
ผู้เขียน	นางสาวนูรอิฮซาน นิแห
สาขาวิชา	การสอนภาษาอังกฤษเป็นภาษานานาชาติ
ปีการศึกษา	2556

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาประสิทธิภาพในการใช้แบบทดสอบเลือกตอบและแบบทดสอบตรวจจับข้อผิดในการพัฒนาความรู้ทางด้านไวยากรณ์ และ 2) ศึกษาผลกระทบในแง่ของความเครียดจากการใช้แบบทดสอบเลือกตอบและแบบทดสอบตรวจจับข้อผิดต่อความสามารถของผู้เรียน กลุ่มตัวอย่างคือนักเรียนชั้นมัธยมศึกษาปีที่ 5 โรงเรียนนราธิวาส จังหวัดนราธิวาส จำนวน 36 คน จากจำนวนทั้งหมด 496 คน ข้อมูลวิจัยได้เก็บรวบรวมจากเครื่องมือจำนวน 3 ชิ้น คือ 1) แบบทดสอบความรู้ทางไวยากรณ์ 2) แผนการสอนที่ใช้แบบฝึกหัดแบบเลือกตอบและแบบตรวจจับข้อผิด และ 3) แบบสอบถามวัดระดับความเครียดมาตราส่วนประมาณค่า 5 ระดับ (5-point Rating Scale) ผลการวิจัยพบว่า การใช้แบบทดสอบแบบเลือกตอบและแบบทดสอบแบบตรวจจับข้อผิดช่วยพัฒนาความรู้ทางไวยากรณ์อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.01 ความเครียดของผู้เรียนทั้งสองกลุ่มที่ได้รับการสอนโดยใช้แบบฝึกหัดแบบเลือกตอบและแบบตรวจจับข้อผิด อยู่ในระดับใกล้เคียงกัน อย่างไรก็ตาม หลังจากการทดลอง 15 สัปดาห์ ความเครียดของทั้งสองกลุ่มมีความแตกต่างอย่างไม่มีนัยสำคัญทางสถิติ กล่าวคือ ระดับความเครียดของผู้เรียนลดลงหลังจากได้รับการฝึกโดยใช้แบบทดสอบ นอกจากนั้น ผลการศึกษาพบว่า ก่อนการทดลองคะแนนในแบบทดสอบแบบตรวจจับข้อผิดมีความสัมพันธ์ในเชิงลบอย่างมีนัยสำคัญทางสถิติกับความเครียดที่เกิดจากแบบทดสอบแบบตรวจจับข้อผิด อย่างไรก็ตาม หลังการทดลอง คะแนนในแบบทดสอบแบบตรวจจับข้อผิดกับความเครียดที่เกิดจากแบบทดสอบแบบตรวจจับข้อผิดไม่มีความสัมพันธ์อย่างมีนัยสำคัญทางสถิติ

Thesis Title   A Comparative Study of Multiple-choice and Error Recognition Tests: Its Effects on Grammar Knowledge Development and Test Anxiety on Test Performance

Author   Ms. Nur-ihsaan Nihae

Major Program   Teaching English as an International Language

Academic Year   2013

ABSTRACT

The present study aimed to investigate the effectiveness of using multiple-choice test and error recognition test in developing grammar knowledge and to investigate the effect of test anxiety produced by the two types of test format on learners' performance. A sample of 36 students was randomly selected from the total population of 469 students who were in Matthayom 5 at Narathiwat School, Narathiwat province, Thailand. The research instruments were grammar knowledge test, teaching plans with the use of multiple-choice and error recognition exercises, and test anxiety questionnaire. The results revealed that using different test formats; multiple-choice and error recognition test significantly helped improve the students' grammar knowledge. The two subjects' group had quite the same level of test anxiety produced by multiple-choice and error recognition. However, after 15 weeks of treatment, the two subject groups' test anxiety showed some differences which could be observed, though non-significantly. That is the test anxiety produced by the test format the subjects were trained with reduced. Moreover, the results revealed a significant and negative relationship between test anxiety produced by error recognition and pre-treatment score. However, no significant relation between their scores on error recognition format and test anxiety was found after the treatment.

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

TABLE

A SYNTHESIS REPORT

PAPER 1

LIST OF PAPER

This thesis based on the following paper:

I. Nihae, N., & Chiramanee, T. (2014). Multiple-choice and Error recognition Tests: Effects of Test Anxiety on Test Performance. *International Journal of English Language Education*, Vol. 2, No. 2, in June 2014

Macrothink Institute ™

June 26, 2014

Dear Nur-ihsaan Nihae & Thanyapa Chiramanee,

Thanks for your submission to *International Journal of English Language Education*.

We have the pleasure to inform you that your manuscript has been accepted for publication. It has been published on the Vol. 2, No. 2, in June 2014.

Title: Multiple-choice and Error Recognition Tests: Effects of Test Anxiety on Test Performance

URL: http://dx.doi.org/10.5296/ijele.v2i2.5854

If you have any questions, please do not hesitate to contact with us.

Sincerely,

Nancy Bronte

Nancy Bronte
International Journal of English Language Education
Macrothink Institute
E-mail: ijele@macrothink.org
URL: http://www.macrothink.org/ijele

1. INTRODUCTION

English now has become one of the most globally important languages. English is an important tool for communication, education, seeking knowledge, and understanding of cultures and visions of the world community. Generally speaking, English is an international language that plays important roles in all aspects of life. In Thai schools, English is one of eight core subjects taught as compulsory in education system. Thai students spend more than twelve years studying English, especially grammar which is taught since elementary school (Basic Education Core Curriculum B.E. *2551*, 2008).

To some extent, grammar plays an important part at the core of every language which forms a language. Thornbury (1999) notes that grammar is a description of the rules that govern how sentences of a language are formed. For Gonzàles (1996), grammar is necessary and is the skeleton of a language. The teacher cannot ignore grammar. This is because all constituents in sentences need to be formed based on grammatical rules. The lack of grammatical ability is an obstacle to skill performance (Hughes, 1989).

Because of its significant roles in language learning, there are many different teaching methods in developing students' grammar knowledge. Rokni and Seifi (2013), for example, conducted a study to investigate the impact of dialog journal writing on learners' grammar development and their confidence. The results of the study revealed that journal writing had a significant positive effect on students' grammar knowledge and enhanced their confidence in writing.

Moreover, Baleghizadeh and Zarghami (2012) studied the impact of conferencing assessment for learning technique on learners' attitudes and their achievement in grammar learning. The study showed that the learners who took part in the conferencing assessment significantly showed more improvement in their grammar learning. This indicated that the conferencing assessment could not only help learners improve their grammar learning, but also enhance learners' attitudes

toward grammar learning.

Fitriani (2011) also conducted a study to investigate the effectiveness of using mind mapping technique in improving grammar mastery of the tenth graders students. She found that students' grammar scores increased after using mind mapping, indicating that mind mapping technique was very helpful for improving students' grammar.

Another technique in developing students' grammar knowledge, CALL, has also been investigated. Prapawadee (2005) studied the effectiveness of *Computer-Assisted Language Learning (CALL)* lessons in learning grammar and found that when learning a language with CALL packages, students were by and large motivated and active in their learning process because of the interactive nature of CALL lessons. That is, CALL lessons could provide individual students with clues, explanations, answer or feedback spontaneously and repeatedly on demand. Moreover, learning with CALL lessons was also enjoyable since it could provide textual, audio, and visual information at the same time.

Apart from interesting and challenging techniques discussed above, Alemi and Miragha (2012), wanted to find out whether regular administration of cloze test could improve the students' knowledge of grammar more than the multiple choice one. The findings indicated that both cloze procedure and multiple-choice test helped improve the students' grammar knowledge, though non-significant. In other words, the findings proved that the use of multiple-choice could improve subjects' knowledge of grammar better than cloze procedure.

However, using the test formats in developing students' grammar knowledge, the effect of test anxiety needs to take into account.

Test format influences students' reaction to the test, including test anxiety. A number of researchers have revealed that test type is one of the factors that leads to test anxiety (Young, 1984 cited in Trimoni and Shahini, 2011; Trimoni and

Shahini, 2011; Murray, 1985 cited in Madson et al., 1991). Some students become anxious while taking the exams which they do not feel comfortable. For example, some students panic when they take an essay test while others on oral exams.

Murray (1985, cited in Madson et al., 1991) proposes that test anxiety is produced by perceptions of item difficulty, time limitation, lack of familiarity with test type, ambiguity in item. Young (1999 cited in Trimoni and Shahini, 2011) posits that students feel anxious when they take the test question type which they have no experience. So, unfamiliarity with test format is one of many factors producing test anxiety (Scott and Madson, 1983 cited in Madson et al., 1991).

Different definitions of test anxiety have been proposed by many scholars. According to Spielberger (1983, cited in Nemati and Habibi, 2012), test anxiety is the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system. For Chavous (2008), test anxiety can be rigorously defined as a feeling of apprehension and discomfort accompanied by cognitive difficulties during the test. Cassady and Johnson (2002) propose that test anxiety involves at least two components: (a) a pattern of physiological hyper arousal that may include physical changes and complaints such as increased heart rate, blood pressure, and so on and (b) a cognitive obstruction or disorganization of effective problem-solving and cognitive control, including difficulty in thinking clearly. Chavous (2008) proposes another factor that has received less attention is social humiliation which refers to one's concern and awareness that others may negatively view their performance.

There have been many principles of anxiety proposed by researchers, for example, Alpert and Haber (1960 cited in Horwitz and Young, 1999), Simpson et al., (1995 cited in Birjandi and Alemi, 2010). Among these many principles, Alpert and Haber's principle of anxiety is widely known and well accepted among scholars in the field of anxiety. Their principles of anxiety consist of two categories: *Facilitating and deliberating anxiety*. *Facilitating anxiety* is an increase in drive level which leads to improved performance while *debilitating anxiety* is an increase in drive

level which leads to lower performance.

Research has been done on the effect of test anxiety on students' test performance. There is a broad agreement in the empirical evidence that test anxiety is associated with lower academic performance (i.e., *deliberating anxiety*). For example, Hambree (1988 cited in Hancock, 2001) examined the research on the effects of test anxiety on academic performance and found that test anxiety caused poor performance. Zatz and Chassin (1985 cited in Hancock, 2001) investigated the relationship between test anxiety and test performance. The results showed that the students with high test anxiety performed more poorly on the test than those students with low or medium anxiety. Moreover, facilitative anxiety was demonstrated by many researchers. For example, Birjandi and Alemi (2010) investigated the relationship between test anxiety and test performance and found that there was a positive correlation between test anxiety and test performance. They concluded that test performance can be improved by slight anxiety.

Based on the discussions above, one of the sources of anxiety is unfamiliarity with test format. Many types of test formats are used in testing, which can be classified into two general types. The first type is the objective test which requires the students to supply a word or two, or to select the correct answer from among a limited number of alternatives. Examples of objective tests are short answer, completion, true-false or alternative response, matching and multiple-choice test. The other type is a subjective test which permits the learners to select, organize and present their answer in an essay form, including an extended response type and a restricted response type (Grounlund, 1971; Henning, 1987 cited in Hughes, 1989).

Multiple-choice format has been very familiar in language learning because the format has been used in schools and university tests. There are many advantages of using multiple-choice in language testing. Multiple-choice tests are fast, easy and they can be scored objectively (Bailey, 1990 cited in Khoii and Shamsi, 2010). Further, they can be used to narrowly test one discrete area of knowledge or skill (Lado, 1961 cited in Currie and Thanyapa, 2010) and can provide diagnostic

information to teachers by analysis of incorrect option selection (Nitko,1983 cited in Currie and Thanyapa, 2010). Additionally, the need for fast marking and the demands of an educational context with large numbers of test takers might make the use of multiple-choice format unavoidable (Khoii and Shamsi 2010). Liu (2007 cited in Currie and Thanyapa, 2010) also noted the main format used in Chinese middle school and university tests is multiple-choice items.

In Thailand, multiple choice tests have been used extensively in many national tests including the university admission testing system. In 2005 and 2007 respectively, the Ordinary National Education Test (O-NET), the tests for grade 6, grade 9, and grade 12 students to assess their academic proficiency and General Aptitude Test (GAT), which are the test for university admission, first introduced error recognition test format, particular in its grammar parts. However, tests of other parts such as reading comprehension and communication skills are still in multiple-choice format (The National Institute of Educational Testing Service, 2009). Error recognition items have become more popular; many Thai standardized tests such as Chulalongkorn University Test of English Proficiency (CU-TEP), Prince of Songkla University Test of English Proficiency (PSU-TEP) and Thammasat University Graduate English Test (TU-GET) employ an error recognition format.

Error recognition items, aiming to measure students' grammatical knowledge and indirectly test writing skills, consist of a complete sentence, with four underlined part, one of which is grammatically wrong. The error recognition format has been perceived as being convenient, efficient and economical for teachers to prepare and construct. However, there are some people who are against the use of error recognition techniques because of its emphasis on more negative aspects of language learning. Heaton (1990 cited in Khoii and Shamsi, 2010), for example, believes that in practice, error recognition method does not work very well because many students learn to consider every sentence as having an error. Moreover, error recognition items are demanding, requiring a different kind of thinking, and students have to read and consider each alternative carefully and draw on many kinds of grammatical knowledge to select answer correctly (Geregly, 2007 cited in Khoii and

Shamsi, 2010). Although there are many limitations associated with error recognition format, it is commonly used in many standardized tests such as SAT (Scholastic Assessment Tests), TOEIC and many widely accepted tests in Thailand such as CU-TEP, PSU-TEP and TU-GET.

Since there have been a relatively small number of studies on the effect of test formats on language development and on students' performance, let alone Thailand, this study aimed to investigate the effectiveness of using multiple-choice test and error recognition test in developing grammar knowledge and to investigate the effect of test anxiety produced by the two types of test format on learners' performance.

2. PURPOSES OF THE STUDY

The purposes of this study were to investigate the effectiveness of using multiple-choice test and error recognition test in developing grammar knowledge and to investigate the effect of test anxiety produced by the two types of test format on learners' performance. It was hoped that the outcome of the study would provide useful information about the use of the two test formats to test grammar knowledge and the anxiety produced by the two test formats; the students might have problems caused by test format anxiety which may influence their performance on the tests. In addition, the findings about ways to reduce test anxiety might be useful for teachers who use the two test formats.

2.1. Research questions

This study aimed to answer the following questions:

1. Which of two test formats (multiple-choices and error recognition) would be most effective for developing the student's grammar knowledge?

2. Did the multiple-choice test and error recognition test produce the same extent of test anxiety?

3. Was there any relationship between test anxiety produced by two test formats and test takers' performance?

4. Did practice effect reduce test anxiety?

3. RESEARCH METHODOLOGY

3.1. Participants

The participants in this study were 36 students randomly sampled from the total population of 469 students who were in Matthayom 5 at Narathiwat School, Narathiwat province, Thailand.

3.2 Research Instruments

3.2.1 Grammar knowledge test

A test was designed and constructed by the researcher to investigate the students' grammar knowledge under the supervision of the researcher's supervisory committee. There were two main parts, one part consisting of 30 multiple-choice items and the other part of 30 error recognition items. The total score of the test was 60 marks. The test was piloted with 30 Matthayom 5 at Narathiwat School who were not the subjects in the present study. The reliability of the grammar knowledge test was .801. The test was administered twice to the 36 subjects, first as a pre-test and again, after the treatment as a post-test. The pre-test scores on the grammar knowledge test were used to divide the 36 subjects into two groups, 18 subjects for each. The mean scores of these two groups were not significantly

different. ($\bar{x}$ = 35.78, S.D. = 3.00 and $\bar{x}$ = 35.00, S.D. = 3.45, respectively). (See Appendix A)

3.2.2 Teaching plans

Teaching plans were designed to develop the subjects' grammar knowledge under the supervision of the researcher's supervisory committee. Fifteen teaching plans with the use of multiple-choice exercises and tests were used with one subject group, who would be referred to hereafter as multiple-choice group (MC group). Another fifteen teaching plans with the use of error recognition exercises and tests would be used with the other subject group, referred to as error recognition group (ER group). Despite the different test formats used in the teaching plans, the fifteen teaching plans with the error recognition version and those with multiple-choice version were aimed to develop the same 15 grammar points, i.e. past perfect tense, past simple tense, past continuous tense, present perfect tense, present simple tense, present continuous tense, comparative, superlative, passive voice, active voice, sentence adverb, subject verb agreement, reflexive pronoun, part of speech, to infinitive, gerund, uncountable noun (amout/ little/ much), countable noun (a few), preposition, article, conjunction, if-clause (Type I), if-clause (Type I), if-clause (Type I), parallelism, adjective –ed/ing, some/an, relative clause, relative clause and word order. Each experimental group spent 15 weeks, two hours a week for one teaching plan, a total of 30 hours for 15 teaching plans. (See Appendix A)

3.2.3 Test anxiety questionnaires

A test anxiety questionnaire was adapted, based on Scott's (1986) and Cassady and Johnson's (2004) to measure the degree of test anxiety produced by multiple-choice and error recognition test formats before and after the treatment period. The questionnaire consisted of 20 items related to how one generally feels when taking the two test formats. For example, *before taking this test, I am so nervous; I worry while I am taking this test, and so on.* This questionnaire was designed on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly

agree" with values 1-5 assigned to them respectively. All the items were written in Thai to ensure that the intended meaning was conveyed. The questionnaires were constructed under the supervision of the researcher's supervisory committee. Thirty Matthayom 5 students at Narathiwat School who were not the subjects of the study participated in the pilot study of the questionnaires. The questionnaires were reliable with Cronbatch's alpha (α) reliability of .704. (See Appendix B)

3.3 Procedure

In the first week of the study, the 30-item grammar knowledge test was administered as the pre-test to measure the 36 subjects' knowledge of grammar and their homogeneity in terms of English grammar knowledge. Right after taking each test format the subjects rated test anxiety toward each test format. The scores on the grammar knowledge test were used to divide the subjects into two experimental groups; the error recognition group (ER group) and the multiple-choice group (MC group). Both groups were taught by the researcher using 15 teaching plans. The ER group was taught with error recognition exercises and tests and the MC group with multiple-choice exercises and tests. Before new grammar points were introduced through a new teaching plan, the grammar point just taught in the previous teaching plan was tested using two different test formats: the error recognition format for the ER group and the multiple-choice format for the MC group.

.

After 15 weeks, the same grammar knowledge test consisting of 30 items of multiple-choice and 30 items of error recognition was given as a post-test to measure students' knowledge of grammar. The test anxiety questionnaire of the two test formats was also administered with exactly the same procedure as the pre-treatment one.

4. FINDINGS AND DISCUSSION

4.1 Effectiveness of test formats on grammar knowledge development

One of the purposes of the present study was to investigate the effectiveness of multiple-choice and error recognition formats in developing grammar knowledge

Table 1 presents the result of the comparison of pre-test and post-test scores of students' grammar knowledge in two groups: MC group and ER group

Table 1: Two groups' grammar knowledge (Total score = 60)

Group	Grammar knowledge test				Improvement	Paired-sample t-test	
	Pre-test		Post-test			t-value	2-tail sig
	$\bar{x}$	S.D.	$\bar{x}$	S.D.			
MC group	35.00	3.45	48.39	5.79	13.39	-0.8643**	0.01
ER group	35.78	3.00	47.50	4.06	11.72	-10.362**	0.01

As shown in Table 1, the pre-test scores of both groups' grammar knowledge were not significantly different as tested by the grammar knowledge test consisting of two test formats: multiple-choice and error recognition ($\bar{x}$ =35.00 and $\bar{x}$ = 35.78, respectively). After 15 weeks of treatment, they were tested again using the same grammar knowledge test consisting two types of test. The results show that the mean scores of MC group was 48.39, and that of ER group was 47.50. The result of t-test shows that both subject groups' post-test scores were significantly higher than their pre-test scores at a level of 0.01. The increase was 13.39 for MC group and 11.72 for ER group. The results of the present study showed that using two test formats significantly helped improve the students' grammar knowledge. No matter what type of test or exercise formats the subjects were trained with, the test formats were able to increase their grammar knowledge.

Table 2 compares the effectiveness of using multiple-choice and error recognition test in developing grammar knowledge.

Table 2: Effectiveness of each test type in developing grammar knowledge
(Total score = 30)

| Group | Grammar knowledge test | | | | | Improvement | Paired-sample t-test | |
| | Test format | Pre-test | | Post-test | | | t-value | 2-tail sig |
		$\bar{x}$	S.D.	$\bar{x}$	S.D.			
MC group	MC	17.72	2.52	26.17	3.75	8.44	8.176**	0.01
	ER	17.28	2.16	22.22	3.69	4.94	5.179**	0.01
ER group	MC	18.33	3.55	25.56	3.78	7.22	6.489**	0.01
	ER	17.44	1.98	21.94	2.8	4.5	5.375**	0.01

As discussed previously in Table 1, the post-test scores of both groups' grammar knowledge were significantly higher than their pre-test scores, indicating that no matter what type of test or exercise formats the subjects were trained with, the test formats were able to increase the subjects' grammar knowledge. As shown in Table 4.2, the mean scores in each test format showed some differences. Although, the post-test scores of both groups were higher than their pre-test, the MC group performed better in each test format. The post-test mean scores of the MC group and the ER group in multiple-choice test were 26.17 and 25.56, and their mean scores in error recognition test were 22.22 and 21.94, respectively. The difference can be observed, though non-significant, indicating that both error recognition and multiple-choice test significantly helped improve the students' grammar knowledge.

The results of this study offered useful information on developing students' grammar knowledge by using test format: multiple-choice and error recognition format. The improvement of the subjects' grammar knowledge trained with two different types of tests indicates that both multiple-choice test and error recognition test help the students improve their grammar knowledge.

4.2 The effects of test anxiety on test performance

The effects of test anxiety produced by multiple-choice and error recognition formats were investigated.

Table 3 compares each subject group's test anxiety produced by multiple-choice and error recognition test.

Table 3: Two subject groups' test anxiety produced by multiple-choice and error recognition formats

Group	Grammar knowledge test	Level of test anxiety				Decrease	Paired-sample t-test	
		Before treatment		After treatment			t-value	2-tail sig
		$\bar{x}$	S.D.	$\bar{x}$	S.D.			
MC group	MC format	3.10	0.38	2.83	0.72	0.27	-1.479	0.158
	ER format	3.30	0.37	3.21	0.60	0.09	-0.630	0.537
ER group	MC format	3.14	0.45	3.02	0.64	0.12	-0.596	0.559
	ER format	3.36	0.60	3.13	0.73	0.23	-0.897	0.382

Table 3 shows quite the same extent of subjects' test anxiety produced by two test formats before treatment. The level of test anxiety produced by multiple-choice of the MC group and the ER group were 3.10 and 3.14, while that produced by error recognition were 3.30 and 3.36, respectively. Both subject groups had higher level of anxiety produced by error recognition than multiple-choice, though non-significantly.

For the MC group, after 15 weeks of treatment, the test anxiety of the MC group produced by multiple-choice reduced from 3.10 to 2.83, a non-significant decrease of 0.27, and their test anxiety level produced by error recognition reduced from 3.30 to 3.21, a non-significant decrease of 0.09. There was a greater decrease in test anxiety produced by multiple-choice, a test format they were trained with during the 15 weeks of treatment, than the anxiety produced by error recognition part, the test

format they were not trained with.

For the ER group, the test anxiety produced by multiple-choice reduced from 3.14 to 3.02, a non-significant decrease of 0.12, and their test anxiety level produced by error recognition reduced from 3.36 to 3.13, a non-significant decrease of 0.23 There was a greater decrease in test anxiety produced by error recognition, a test format they were trained with during the 15 weeks of treatment, than the anxiety produced by multiple-choice.

The findings demonstrated the influence of practice effect on test anxiety. The 15-week treatment given to the MC and ER subject groups helped familiarize the subjects with the test format in questions, which in turn, helped reduce their anxiety level. It is widely accepted that test anxiety affects test performance (Cassady and Johnson, 2002 cited in Rana and Mahmood, 2010), which would be discussed in the following section.

The findings about the reduction of test anxiety in both subject groups in the present study after 15 weeks of treatment may offer useful information on practice effect which helped reduce the subjects' anxiety. This is in line with what Madson and Murray (1984 cited in Scott, 1986) and Young (1999 cited in Trimoni and Shahini, 2011) who suggest that unfamiliarity with question types or exam formats can cause test anxiety. Therefore, Alcala (2002 cited in Trimoni and Shahini, 2011) proposes that in order to reduce test anxiety which influences students' performance, teachers can familiarize students with the exam format.

Another interesting finding of this present study was about the relationship between test anxiety and test performance. To establish a relationship between the subjects' performance and the test anxiety, the 36 subjects' scores in the multiple-choice part and error recognition part of the grammar knowledge test and their anxiety produced by the two test formats were analyzed using Product Moment Correlation Coefficient Test. The results of the analysis are presented in Table 4 below.

Table 4: Relationship between test scores and test anxiety

Group	Scores on grammar knowledge test	Level of test anxiety	
		Before treatment	After treatment
		Pearson r	Pearson r
MC group	MC format	0.098	0.25
	ER format	-0.089	-0.392
ER group	MC format	0.253	-0.155
	ER format	- 0.648**	-0.058

** Significant at the .01 level

For the MC group, it was found that the correlation between their pre-treatment score on multiple choice format and test anxiety produced by multiple-choice was 0.098, and the correlation between the pre-treatment error recognition scores and the test anxiety produced by error recognition was -.089. This indicated that there was no significant relationship between the MC group's test performance and test anxiety produced by the two test formats. The same case was found with their post treatment scores ($r = 0.25$, $r = $ -0.392)

For the ER group, their pre and post treatment test scores on the multiple choice format were not significantly related to the test anxiety produced by the multiple choice test ($r = 0.0253$, $r = $ - 0.155). However, their pre-treatment test score on error recognition part of the test was significantly and negatively related to their anxiety produced by this format ($r = $ -.648, $p < 0.01$), suggesting that the higher the test anxiety produced by the error recognition type, the lower their test scores on this test format, and vice versa. Nonetheless, no significant relation between their scores on error recognition format and test anxiety was found after the treatment ($r = $ -0.058). This means that, after 15 weeks of treatment with error recognition exercises, they became more familiar with this test format so their anxiety decreased. This might confirm the prominent role of practice effect discussed previously.

The significant relationship between test anxiety produced by error

recognition format and the ER group's test performance, i.e. the higher the test anxiety, the lower the test scores and vice versa is referred to as *deliberative anxiety*; this type of anxiety adversely affects test taker's performance. *Deliberative anxiety* takes different forms to harm learners' performance in various ways, through worry and self-doubt and reduces reducing participation and creating overt avoidance of the language. The debilitating physiological effects of anxiety interfere with individuals' performance and lead to poor academic performance (Tryron, 1980 cited in Chen, 2007).

Some studies have revealed deliberative anxiety on the students' performance; Rana and Mahmood (2010), for example, conducted a study to explore the relationship between test anxiety and academic achievement of students at the post graduate level. They were found that a significant negative relationship exists between test anxiety scores and students' achievement scores. Trifoni and Shahini (2011) also studied the effects of test anxiety on test performance of university students. They also found deliberative anxiety and its effects on their subjects' performance.

This present study supported previous research which has revealed a negative relation between test anxiety and students' performance (e.g., Hambree, 1988 cited in Hancock, 2001; Hancock, 2001; Chapell et al., 2005; Trifoni & Shahini, 2011). All these researchers have reached the conclusion that students performance and test anxiety level have a reverse ratio, meaning that when test anxiety level increases, students' performance decreases and vice versa.

5. CONCLUDING REMARKS AND RECOMMENDATIONS FOR FURTHER STUDIES

This study has provided relevant and useful information to teachers as well as students on the effect of the test formats used to develop grammar knowledge and test anxiety produced by test formats. It also provided information on the relationship between test anxiety produced by multiple-choice and error recognition and test takers' performance and practice effect on test anxiety.

The results of the present study have shown that using different test formats; multiple-choice and error recognition test significantly helped improve the students' grammar knowledge.

The other finding of the present study was a significant and negative relationship between test anxiety produced by error recognition and test performance. That is, the higher the test anxiety a test taker had on the type, the lower his test score was. This relation is referred to as *deliberative anxiety*; this type of anxiety adversely affects test taker's performance. In addition, the finding of this present study seemed to suggest that practice effects could reduce anxiety produced by unfamiliar test format (i.e. error recognition) but not familiar test format (i.e. multiple-choice).

The results of this present study will be useful for classroom teachers who consider introducing new or unfamiliar test formats in the evaluation process. In order to reduce test anxiety that might be caused by unfamiliar test formats, teachers can familiarize the students with the test formats by a repeated use of the test formats through classroom activities such as exercises or quizzes. When the students are familiar with the test format, then that format can be used in the evaluation process to make sure that the students' performance will not be affected by test anxiety caused by the test formats used to evaluate their knowledge.

For further investigation, research would need to be conducted on the use of multiple-choice test and error recognition tests in testing grammar knowledge to find out the effect of test anxiety produced by the two types of test formats with learners at different language proficiency levels and in different educational contexts. In addition, more research instruments such as observation, interview, etc. should be included in future studies in order to get in-depth information about test anxiety. This may also allow researchers to discover other interesting factors that may lead to test anxiety and to develop a viable tool for reducing test anxiety.

REFERENCES

Alemi, M. & Miragha, A. (2012). A comparative study of testing grammar Knowledge of Iranian students between cloze and multiple-choice Tests, *MJAL, 4*(1), 16- 35.

Basic Education Core Curriculum B.E. 2551. (2008). Thailand's basic education core curriculum 2551: English version . Retrieved January 3, 2014, from http:// www.scribd.com/doc/124114840/Thailand-s-Basic-Education-Core-Curriculum-2551-English-version.

Baleghizadeh, S. & Zarghami, Z. (2012). The impact of conferencing assessment on EFL students' grammar learning. *Profile, 14* (2), 131-144.

Birjandi, P. & Alemi, M. (2010). The impact of test anxiety on test performance among Iranian EFL learners. *BRAIN: Broad Research in Artificial Intelligence and Neuroscience, 1*(4), 44-58.

Cassady, J. & Johnson, E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology, 27*, 270-295.

Chapell, M., et al. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Education Psychology, 97*, 268-274. http://dx.doi.org/ 10.1037/0022-0663.97.2.268

Chavous, T. (2008). Evaluation (test) anxiety. *Psychology of Classroom Learning, 1,* 387-390.

Currie, M. & Thanyapa, C. (2010). The effect of the multiple-choice item format on the measurement of knowledge of language structure. *Language Testing, 2*(4), 471-491. http://dx.doi.org/10.1177/0265532209356790

Chen, M. (2007). *Test anxiety, reading anxiety and reading performance among university English as second language learners*. Master's thesis, Ming Chuan University, Tai Pei: Taiwan.

Fitrini, G. (2011). Using mind mapping techniques in improving grammar mastery of the tenth graders of SMA Ma'arif Lawang. *SKRIPSI Jurusan Sastra Inggris - Fakultas Sastra UM.,* 1-18.

Gonzáles, A. B. (1996). Testing English as a foreign Language: an overview and some methodological considerations. *RESLA, 11,* 17-49.

Hancock, D. R. (2001). Effects of test anxiety and evaluative threat on students' achievement and motivation. *The Journal of Educational Research , 94,* 284-290.

Heaton. (1988). *Writing English Language Test*. (New ed.). New York: Longman.

Hughes. (1989). *Testing for Language Teachers*. New York: Cambridge.

Horwitz & Young. (1999). *Language Anxiety from Theory and Research to Classroom Implications*. New York: Pearson.

Khoii, R. & Shamsi, N. (2010) .The effect of the method on the trait: investigating the function of no-error option in grammar error-identification items in admission tests. *Iranian EFL Journal*, *7*(2), 166-178.

Madson, S., et al. (1983). *Techniques in testing*. New York: Oxford.

Nemati, A. & Habibi, P. (2012). The effect of practicing pranayama on test anxiety
     and test performance. *Indian Journal of Science and Technology , 5,*
     2645-2650.

Prapawadee, N. (2005). *The effects of formal and conversational Thai explanations in*
     grammatical computer-assisted language learning (CALL) Packages on
     Students' Attitudes and Learning Outcomes. MA. Thesis, Prince of Songkla
     University, Had Yai: Thailand.

Rana, R., & Mahmood, N. (2010). The relationship between test anxiety and
     academic Achievement. *Bulletin of Education and Research, 32*(2), 63-74.

Rokni, S. & Seifi, A. (2013). The effect of dialog journal writing on EFL learners'
     grammar knowledge. *Journal of Language and Linguistic Studies, 9(*2), 57-67.

Scott, M. (1986). Student affective reactions to oral language tests. *Language Testing,*
     3(1), 99-118. http://dx.doi.org/ 10.1177/026553228600300105

Shohamy, E. (1984). Does the testing method make a difference? the case of reading
     comprehension. *Language Testing, 1*(2), 147-170. http:// dx.doi.org/10.1177
     /026553228400100203

The National Institute of Educational Testing Service. (2009). About O-NET.
     Retrieved January 25, 2014, from. http://www.niets.or.th/upload-
     files/uploadfile/5/5113f2fc40d9b7ccbf26972226c1a536.pdf

Thornbury , S. (1999). *How to teach grammar*. Charlbury: Bluestone Press.

Trimoni, A. & Shahini, M. (2011). How does exam anxiety affect the performance
     of university students?. *Mediterranean Journal of Social Sciences, 2*(2),
     93-100.

APPENDIX A

Grammar knowledge tests

Grammar Knowledge Test

Name_____Class_____No._____

Part 1: Error recognition

Directions: Identify the underlined part that is grammatically wrong. (Items 1-30)

1. **(a)** The passengers **(b)** have just boarded the plane when the pilot announced that they **(c)** would have to return **(d)** to the terminal.

2. **(a)** Normally I **(b)** have finished work at 5.00, but this week **(c)** I am working until 6.00 **(d)** to earn a bit more money.

3. **(a)** During a depression, **(b)** economic conditions are far **(c)** worst than **(d)** they are during a recession.

4. The readers of the magazine **(a)** invited to send letters with their **(b)** personal information **(c)** to the magazine office **(d)** within two weeks.

5. If you wish **(a)** to complete the job **(b)** successful, you have to **(c)** follow through on the plans that **(d)** were made.

6. One of **(a)** the latest methods **(b)** of quarrying stone **(c)** are **(d)** to cut the stone with a jet torch.

7. The results of research **(a)** are considered satisfactory, even though **(b)** there is complaint about **(c)** how many money **(d)** was spent.

8. The atoms of a crystal always **(a)** arrange **(b)** them **(c)** into a specific array, **(d)** called a lattice.

9. After **(a)** <u>the first </u>year of employment, the company **(b)** <u>offers</u> **(c)** <u>a two-week</u> vacation **(d)** <u>for</u> employees.

10. The boat **(a)** <u>was sunk</u> **(b)** <u>quickly</u> but **(c)** <u>fortunately</u> everybody **(d)** <u>was rescued</u>.

11. Job enrichment is a technique **(a)** <u>used to</u> increase **(b)** <u>satisfaction workers'</u> by **(c)** <u>giving</u> them more **(d)** <u>responsibility</u>.

12. **(a)** <u>I'm</u> sure Amy will **(b)** <u>lend</u> you the money. I will be very **(c)** <u>surprised</u> if she **(d)** <u>refused</u>.

13. One **(a)** <u>important</u> branch of linguistics **(b)** <u>is</u> semantics, which **(c)** <u>analysis</u> the **(d)** <u>meaning</u> of the words.

14. The two brothers **(a)** <u>were eating</u> when the sheriff **(b)** <u>came</u> **(c)** <u>seeing</u> **(d)** <u>them</u>.

15. **(a)** <u>Drink</u> mineral water has **(b)** <u>long been</u> believed **(c)** <u>to have</u> beneficial **(d)** <u>effects on people</u>.

16. **(a)** <u>A little</u> of doctors **(b)** <u>practicing</u> in the North American colonies **(c)** <u>had</u> formal training **(d)** <u>in</u> the field of medicine.

17. Waterwheels, which **(a)** <u>appeared</u> **(b)** <u>on</u> fourth century, **(c)** <u>were probably</u> the first machines not **(d)** <u>powered </u>by humans or animals.

18. There is **(a)** <u>a</u> blue car parked outside. I don't know who **(b)** <u>the owner</u> of **(c)** <u>a</u> blue car **(d)** <u>is</u>.

19. Thomas Eakins **(a)** <u>studied</u> not only painting **(b)** <u>and</u> anatomy **(c)** <u>when</u> he was training to **(d)** <u>become</u> an artist.

20. Seeing a ghost last night was a really **(a)** <u>terrified</u> experience. **(b)** <u>Afterwards</u> everybody **(c)** <u>was</u> very **(d)** <u>shocked</u>.

21. Chicago's Field Museum **(a)** <u>is</u> one of **(b)** <u>the largest</u> and **(c)** <u>better known</u> natural history museums **(d)** <u>in</u> the United State.

22. When **(a)** <u>taking</u> part **(b)** <u>in</u> winter sports, we should wear clothing **(c)** <u>that</u> is lightweight, **(d)** <u>warmth</u>, and suitable for the activity.

23. If you **(a)** <u>take</u> **(b)** <u>more exercise</u> in the past, you **(c)** <u>would</u> probably feel
 (d) <u>healthier.</u>

24. This school **(a)** <u>is</u> only **(b)** <u>for</u> children **(c)** <u>where</u> **(d)** <u>first language</u> is not English.

25. Jane worked hard **(a)** <u>at school</u> last term **(b)** <u>but</u> this term **(c)** <u>she</u> **(d)** <u>hadn't worked</u> hard.

26. I **(a)** <u>saw</u> you in the park yesterday. You **(b)** <u>are sitting</u> on the grass and **(c)** <u>reading</u> **(d)** <u>a book</u>.

27. Look**(a)** <u>at</u> the river. It **(b)** <u>flows</u> very fast today – **(c)** <u>much faster</u> than **(d)** <u>usual</u>.

28. If there are **(a)** <u>some</u> letters **(b)** <u>for me</u>, can you send **(c)** <u>them</u> **(d)** <u>on</u> to this address?

29. Barbara **(a)** <u>works</u> for **(b)** <u>a company</u> **(c)** <u>who</u> makes **(d)** <u>washing</u> machines.

30. If David **(a)** <u>revises</u> his final-year project **(b)** <u>more carefully</u>, **(c)** <u>he</u> would **(d)** <u>have obtained</u> a higher grade.

Grammar Knowledge Test

Name_____Class_____No._____

_____

Part 2: Multiple- choice

Directions: Choose the correct answer to complete the sentences. (Items 1-30)

1. After Steve ……………………. the last cup of coffee, he made another pot.

          a. drinks   b. drank

           c. has drunk   d. had drunk

2. Poaching of elephants for ivory and meat……………….. a serious problem in many Asian countries.

          a. remains   b. is remained

          c. is remaining   d. has remained

3. African elephants are larger, fiercer, and ………….. to tame than Asian elephants.

          a. difficulter   b. as difficult

          c. more difficult   d. the most difficult

4. The personal computers that…………………… last week have already arrived and are being installed by the technicians.

          a. order   b. ordered

          c. were ordering   d. were ordered

5. It is important to follow through on the plans that were made if you wish to complete the job………………. .

          a. succeed   b. success

          c. successful   d. successfully

6. One of the most exciting branches of electrical science which is taught at most universities…………………. electronics.

          a. is   b. are

          c. was   d. were

7. I don't want you to pay for me. I'll pay for ………………………… .

          a.mine   b.me

          c. myself   d. I

8. What is the name of the man………….. car you borrowed?

          a. who   b. which

          c. where   d. whose

9. There was once a widespread………………. that all lizards were poisonous.

          a. belief   b. believe

          c. believing   d. to believe

10. You're always tired. If you didn't go to bed so late every night, you……………. tired all the time.

          a. weren't   b. didn't be

          c. will be   d. wouldn't be

11. Sarah Knight ………………………. a fascinating account of a journey she made from Boston to New York in 1704.

          a. write   b. wrote

          c. was writing   d. has written

12. I saw an accident last night. Somebody ……………. an ambulance but nobody was injured.

          a. called   b. was called

          c. was calling   d. had called

13. Paula says she's planning on resigning soon because she expects…………………. accepted into an MBA program.

        a. get   b. to get

        c. getting   d. that getting

14. In 1944, biologist Charles Michener devised a system for……………the approximately 20,000 species of bee.

        a. classify   b. to classify

        c. classifying   d. that classify

15. The American designers Louis Comfort Tiffany took………………. of his inspiration from nature.

        a. few   b. many

        c. much   d. number

16. …………………championship automobile and motorcycle races take place in Daytona Beach, Florida.

        a. little   b. many

        c. much   d. amount

17. Mark and Carol are expecting us. They will be disappointed if we…………. .

        a. aren't come   b. weren't come

        c. don't come   d. haven't come

18. According………… polls taken throughout the twentieth century, Lincoln and Washington are the preeminent American presidents.

        a. on   b. with

        c. to   d. of

19. I saw the accident this morning. A car crashed into a tree. Luckily, the driver of………car wasn't hurt.

        a. a   b. any

        c. the   d. some

20. I had never expected to get the job. I was really………….. when I was offered it.

        a. amaze   b. amazed

        c. amazing   d. amazement

21. Glucose does not have to be digested,…………. it can be directly into the bloodstream .

        a. so   b. while

        c. since   d. such

22. The deep oceans contain some of ………………….. living creatures.

        a. stranger   b. as strange

        c. the strangest   d. so strange as

23. Steel is alloyed with manganese to increase its strength, hardness, and ……………. to heat.

        a. resistance   b. resistant

        c. resistable   d. resist

24. If there ………….. no floods last year, the crop would have been better now.

        a. were   b. had been

        c. will be   d. would be

25. Our football team won a lot of games last season but we…………. any games this season.

        a. don't win   b. didn't win

        c. aren't wining   d. hasn't won

26. When I arrived, everybody was sitting round the table with their mouths full.
They ……………… .

               a. eat   b. are eating

               c. were eating   d. had eaten

27. Maria is in Britain at the moment. She………………….. English.

               a. learns   b. is learning

               c. was learning   d. has learnt

28. Can you give me ………………. information about places of interest in the town.

               a. a   b. an

               c. any   d. some

29. A building……………….. was destroyed in the fire has now been rebuilt.

               a. who   b. which

               c. where   d. whose

30. The new software training program that will be set up should improve
our ………….. in working.

               a. employees' skills   b. employees skills'

               c. skills' employees   d. skills employees'

APPENDIX B

Test anxiety questionnaires

<u>แบบสอบถามสำหรับข้อสอบแบบตรวจจับข้อผิด</u>

แบบสอบถามชุดนี้ มีจุดมุ่งหมายเพื่อวัดระดับความเครียดของผู้เข้าสอบ เกี่ยวกับลักษณะของ
ข้อสอบในการทดสอบไวยากรณ์ ข้อมูลที่ได้รับจากแบบสอบถามจะถูกเก็บเป็นความลับและไม่มี
ผลประการใดกับผู้เข้าสอบ จึงขอความร่วมมือตอบแบบสอบถามตามความเป็นจริง

**คำชี้แจง: โปรดกาเครื่องหมาย ☑ ลงในช่องที่ตรงกับความเป็นจริงของนักเรียน
มากที่สุด ระดับการให้คะแนนมีดังนี้**

5 = **เห็นด้วยมาก** 4 = **เห็นด้วย** 3 = **เห็นด้วยปานกลาง** 2 = **ไม่เห็นด้วย** 1 = **ไม่เห็นด้วยมาก**

ข้อ	คำถาม	ระดับให้คะแนน				
		1	2	3	4	5
ก่อนลงมือทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า…						
1	รู้สึกท้อแท้					
ในระหว่างทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า…						
2	มีความรู้สึกกังวล					
3	ต้องใช้สมาธิในการคิดหาคำตอบให้ตรงประเด็นของคำถาม					
4	ไม่สามารถใช้ความรู้ที่มีอยู่ได้					
5	รู้สึกว่าทำข้อสอบไม่ได้					
6	รู้สึกผ่อนคลายเมื่อมีนักเรียนคนอื่นนั่งทำข้อสอบอยู่ด้วย					
หลังจากทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า…						
7	มีความกังวล ในผลคะแนนที่จะได้รับเป็นอย่างมาก					
8	รู้สึกว่าน่าจะได้คะแนนสูงกว่าความรู้จริงของข้าพเจ้า					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
ในภาพรวมข้อสอบแบบตรวจจับข้อผิด						
9	ทำให้ข้าพเจ้าเป็นกังวลอย่างมาก					
10	ข้าพเจ้าไม่คุ้นเคยกับข้อสอบลักษณะนี้					
11	ข้าพเจ้าสามารถเดาคำตอบได้เมื่อทำข้อสอบลักษณะนี้					
12	ข้าพเจ้ารู้สึกเป็นความท้าทายมากกว่ากังวล เมื่อพบคำถามยาก					
13	ข้าพเจ้ามั่นใจว่าข้อสอบลักษณะนี้ วัดความสามารถที่แท้จริงของข้าพเจ้าได้					
14	การทำข้อสอบลักษณะนี้ ความกังวลที่มีทำให้ข้าพเจ้าขาดความระมัดระวังในการทำข้อสอบ					
15	การทำข้อสอบลักษณะนี้ ทำให้ประสิทธิภาพในการทำข้อสอบของข้าพเจ้าลดลง					
16	ถ้าข้าพเจ้าทำข้อสอบลักษณะอื่น ข้าพเจ้าคิดว่าน่าจะทำคะแนนได้ดีกว่า					
17	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ซึ่งคุมสอบโดยผู้คุมสอบคนอื่นๆ คะแนนที่ได้จะต่างจากวันนี้					
18	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ชุดเดิมในวันอื่นที่ไม่ใช่วันนี้ คะแนนที่ได้จะเหมือนเดิม					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
19	ข้าพเจ้าเชื่อว่าในการทดสอบไวยากรณ์จำเป็นต้องใช้ข้อสอบลักษณะนี้					
20	ข้าพเจ้าชอบทำข้อสอบลักษณะนี้					

แบบสอบถามสำหรับข้อสอบแบบเลือกตอบ

แบบสอบถามชุดนี้   มีจุดมุ่งหมายเพื่อวัดระดับความเครียดของผู้เข้าสอบ   เกี่ยวกับลักษณะของ

ข้อสอบในการทดสอบไวยากรณ์   ข้อมูลที่ได้รับจากแบบสอบถามจะถูกเก็บเป็นความลับและไม่มี

ผลประการใดกับผู้เข้าสอบ จึงขอความร่วมมือตอบแบบสอบถามตามความเป็นจริง

คำชี้แจง: โปรดกาเครื่องหมาย ☑ ลงในช่องที่ตรงกับความเป็นจริงของนักเรียน

มากที่สุด ระดับการให้คะแนนมีดังนี้

5 = **เห็นด้วยมาก** 4 = **เห็นด้วย**   3 = **เห็นด้วยปานกลาง**   2 = **ไม่เห็นด้วย** 1 = **ไม่เห็นด้วยมาก**

ข้อ	คำถาม	ระดับให้คะแนน				
		1	2	3	4	5
ก่อนลงมือทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
1	รู้สึกท้อแท้					
ในระหว่างทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
2	มีความรู้สึกกังวล					
3	ต้องใช้สมาธิในการคิดหาคำตอบให้ตรงประเด็นของคำถาม					
4	ไม่สามารถใช้ความรู้ที่มีอยู่ได้					
5	รู้สึกว่าทำข้อสอบไม่ได้					
6	รู้สึกผ่อนคลายเมื่อมีนักเรียนคนอื่นนั่งทำข้อสอบอยู่ด้วย					
หลังจากทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
7	มีความกังวล ในผลคะแนนที่จะได้รับเป็นอย่างมาก					
8	รู้สึกว่าน่าจะได้คะแนนสูงกว่าความรู้จริงของข้าพเจ้า					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
ในภาพรวมข้อสอบแบบเลือกตอบ						
9	ทำให้ข้าพเจ้าเป็นกังวลอย่างมาก					
10	ข้าพเจ้าไม่คุ้นเคยกับข้อสอบลักษณะนี้					
11	ข้าพเจ้าสามารถเดาคำตอบได้เมื่อทำข้อสอบลักษณะนี้					
12	ข้าพเจ้ารู้สึกเป็นความท้าทายมากกว่ากังวล เมื่อพบคำถามยาก					
13	ข้าพเจ้ามั่นใจว่าข้อสอบลักษณะนี้ วัดความสามารถที่แท้จริงของข้าพเจ้าได้					
14	การทำข้อสอบลักษณะนี้ ความกังวลที่มีทำให้ข้าพเจ้าขาดความระมัดระวังในการทำข้อสอบ					
15	การทำข้อสอบลักษณะนี้ ทำให้ประสิทธิภาพในการทำข้อสอบของข้าพเจ้าลดลง					
16	ถ้าข้าพเจ้าทำข้อสอบลักษณะอื่น ข้าพเจ้าคิดว่าน่าจะทำคะแนนได้ดีกว่า					
17	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ซึ่งคุมสอบโดยผู้คุมสอบคนอื่นๆ คะแนนที่ได้จะต่างจากวันนี้					
18	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ชุดเดิมในวันอื่นที่ไม่ใช่วันนี้ คะแนนที่ได้จะเหมือนเดิม					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
19	ข้าพเจ้าเชื่อว่าในการทดสอบไวยากรณ์จำเป็นต้องใช้ข้อสอบลักษณะนี้					
20	ข้าพเจ้าชอบทำข้อสอบลักษณะนี้					

Published Paper 1

Macrothink Institute ™

Multiple-choice and Error Recognition Tests: Effects of Test Anxiety on Test Performance

Nur-ihsaan Nihae (Corresponding author)

M.A. student, Department of Languages and Linguistics, Faculty of Liberal Arts

Prince of Songkla University, Hat Yai Campus, Songkla, Thailand

E-mail: Nihae.nur@gmail.com

Thanyapa Chiramanee

Assoc. Prof. Dr., Department of Languages and Linguistics, Faculty of Liberal Arts

Prince of Songkla University, Hat Yai Campus, Songkla, Thailand

E-mail: thanyapa.c@psu.ac.th

Abstract

The present study aimed to investigate the use of multiple-choice test and error identification tests in testing grammar to find out the effect of test anxiety produced by the two types of test formats on learners' performance. A sample of 36 students was randomly selected from the total population of 469 students who were in Matthayom 5 at Narathiwat School, Narathiwat province, Thailand. The research instruments were grammar knowledge test, teaching plans with the use of multiple-choice and error recognition exercises, and test anxiety questionnaire. The results revealed that the two subjects' group had quite the same level of test anxiety produced by multiple-choice and error recognition. However, after 15 weeks of treatment, the two subject groups' test anxiety showed some differences which could be observed, though non-significantly. That is the test anxiety produced by the test format the subjects were trained reduced. Moreover, the results revealed a significant and negative relationship between test anxiety produced by error recognition and pre-treatment score. However, no significant relation between their scores on error recognition format and test anxiety was found after the treatment.

1. Introduction

A language test is important for language learning. Testing is a topic of employing data to verify the proof of learning (McNamara, 2000). There is a strong relationship between a language test and language learning. A test reinforces learning and evaluates a language performance of the learners (Heaton, 1988). For Kaewmala (2012), good tests should determine children's competence to apply knowledge to their everyday life. Tests are instruments to assess not only students' scholastic performance but also the performance of schools and teachers. Tests can demonstrate the testers' quality and the education system as a whole. Thus, one characteristic of a good test is that the method has little effect on the trait. Therefore, Bechman (cited in Khoii and Shamsi, 2010) emphasizes the need of developing a framework for delineating the specific features or facets of the test method in order to understand variation in language performance.

It is widely accepted that one of the factors interacting in the process of testing is a test method which refers to the specific procedure or technique that is used to assess the trait which refers to the knowledge being measured (Shohamy, 1984).

Test format influences students' reaction to the test, including test anxiety. A number of researchers have revealed that test type is one of the factors that leads to test anxiety (Young, 1984 cited in Trimoni and Shahini, 2011; Trimoni and Shahini, 2011; Murray, 1985 cited in Madson et al., 1991). Some students become anxious during exams that require them to demonstrate their knowledge in ways in which they do not feel comfortable. For example, some students panic when they have to take an essay test. Others become anxious over oral exams.

Murray (1985, cited in Madson et al., 1991) proposes that test anxiety is produced by perceptions of item difficulty, time limitation, lack of familiarity with test type, ambiguity in item. Young (1999 cited in Trimoni and Shahini, 2011) posits that students feel anxious when they take the test question type which they have no experience. So, unfamiliarity with test format is one of many factors producing test anxiety (Scott and Madson, 1983 cited in Madson et al., 1991).

Different definitions of test anxiety have been proposed by many scholars. According to Spielberger (1983, cited in Nemati and Habibi, 2012), test anxiety is the subjective feeling of tension, apprehension, nervousness and worry associated with an arousal of the autonomic nervous system. For Chavous (2008), test anxiety can be rigorously defined as a feeling of apprehension and discomfort accompanied by cognitive difficulties during the test. Cassady and Johnson (2002) propose that test anxiety involves at least two components: (a) a pattern of physiological hyper arousal that may include physical changes and complaints such as increased heart rate, blood pressure, etc., and (b) a cognitive obstruction or disorganization of effective problem-solving and cognitive control, including difficulty in thinking clearly. A proposed third factor, Chavous (2008),that has received less attention is social humiliation, referring to one's concern and awareness that others may negatively view their performance.

There have been many principles of anxiety proposed by researchers, for example, Alpert and

Haber (1960 cited in Horwitz, 1999), Simpson et al., (1995 cited in Birjandi and Alemi, 2010). Among these many principles, Alpert and Haber's principle of anxiety is widely known and well accepted among scholars in the field of anxiety. Their principles of anxiety consist of two categories: *Facilitating and deliberating anxiety. Facilitating anxiety* is an increase in drive level which results in improved performance while *debilitating anxiety* is an increase in arousal or drive level which leads to poor performance.

Research has been done on the effect of test anxiety on students' test performance. There is a broad agreement in the empirical evidence that test anxiety is associated with lower academic performance (i.e., *deliberating anxiety*). For example, Hambree (1988 cited in Hancock, 2001) examined the research on the effects of test anxiety on academic performance and found that test anxiety caused poor performance. Zatz and Chassin (1985 cited in Hancock, 2001) investigated the relationship between test anxiety and test performance. The results showed that the students with high test anxiety performed more poorly on the test than those students with low or medium anxiety. Moreover, facilitative anxiety was demonstrated by many researchers. For example, Birjandi and Alemi (2010) investigated the relationship between test anxiety and test performance and found that there was a positive correlation between test anxiety and test performance. They concluded that test performance can be improved by slight anxiety.

Based on the discussions above, one of the sources of anxiety is unfamiliarity with test format. Many types of test formats are used in testing, which can be classified into two general types. The first type is the objective test which requires the students to supply a word or two, or to select the correct answer from among a limited number of alternatives. Examples of objective tests are short answer, completion, true-false or alternative response, matching and multiple-choice test. The other type is subjective test which permits the learner to select, organize and present their answer in essay form, including extended response type and restricted response type (Grounlund, 1971; Henning, 1987 cited in Hughes, 1989).

Multiple-choice format has been very familiar in language learning because the format has been used in schools and university tests. There are many advantages of using multiple-choice in language testing. Multiple-choice tests are fast, easy and they can be scored objectively (Bailey, 1990 cited in Khoii and Shamsi, 2010). Further, they can be used to narrowly test one discrete area of knowledge or skill (Lado, 1961 cited in Currie and thanyapa, 2010) and can provide diagnostic information to teachers by analysis of incorrect option selection (Nitko, 1983 cited in Currie and thanyapa, 2010). Additionally, the demands of an educational context with large numbers of test takers and the need for fast marking might make the use of multiple-choice format unavoidable (Khoii and Shamsi 2010). Liu (2007 cited in Currie and thanyapa, 2010) also noted the main format used in Chinese middle school and university tests is multiple-choice items.

In Thailand, multiple choice tests have been used extensively in many national tests including the university admission testing system. In 2005 and 2007 respectively, the Ordinary National Education Test (O-NET), the tests for grade 6, grade 9, and grade 12 students to assess their academic proficiency and General Aptitude Test (GAT), which are the test for university

Macrothink Institute™

admission, first introduced error recognition test format, particular in its grammar parts. However, tests of other parts such as reading comprehension and communication skills are still in multiple-choice format (The National Institute of Educational Testing Service, 2009). Error recognition items have become more popular; many Thai standardized tests such as Chulalongkorn University Test of English Proficiency (CU-TEP), Prince of Songkla University Test of English Proficiency (PSU-TEP) and Thammasat University Graduate English Test (TU-GET) employ error recognition format.

Error recognition items, aiming to measure students' grammatical knowledge and indirectly test writing skills, consist of a complete sentence, with four underlined part, one of which is grammatically wrong. The error identification format has been perceived as being convenient, efficient and economical for teachers to prepare and construct. However, there are some people who are against the use of error identification techniques because of its emphasis on more negative aspects of language learning. Heaton (1990 cited in Khoii and Shamsi, 2010), for example, believes that in practice, error identification method does not work very well because many students tend to regard every sentence as having an error. Moreover, error identification items are demanding, requiring a different kind of thinking, and students have to read and consider each response option carefully and draw on various kinds of grammatical knowledge to respond correctly (Geregly, 2007 cited in Khoii and Shamsi, 2010). Although there are many limitations associated with error identification format, it is commonly used in many standardized tests such as SAT (Scholastic Assessment Tests), TOEIC and many widely accepted tests in Thailand such as CU-TEP, PSU-TEP and TU-GET.

Since there have been a relatively small number of studies on the effect of test formats on students' performance, let alone Thailand, this study aimed to investigate the use of multiple-choice test and error identification tests in testing grammar to find out the effect of test anxiety produced by the two types of test formats on learners' performance.

2. Research Questions

2.1 Do the multiple-choice test and error recognition test produce the same extent of test anxiety?

2.2 Is there any relationship between test anxiety produced by two test formats and test takers' performance?

2.3 Does practice effect reduce test anxiety?

3. Purpose of the Study

The purpose of this study was to investigate the use of multiple-choice test and error identification tests in testing grammar knowledge to find out the effect of test anxiety produced by the two types of test format on learners' performance. It was hoped that the outcome of the study would provide useful information about the use of the two test formats to test grammar knowledge; the students might have problems caused by test format anxiety which may influence their performance on the tests. In addition, the findings that test anxiety can be reduced by practice effect might be useful for teachers by familiarizing their students

by repeated use of the test formats.

4. Research Methodology

4.1 Participants

The participants in this study were 36 students randomly sampled from the total population of 469 students who were in Matthayom 5 at Narathiwat School, Narathiwat province, Thailand.

4.2 Research Instruments

4.2.1 Grammar Knowledge Test

A test was designed to investigate the students' grammar knowledge. There were two main parts, one part consisting of 30 multiple-choice items and the other part of 30 error identification items. The total score of the test was 60 marks. The test was administered twice; first as a pre-test and again, after the treatment as a post-test. The pre-test scores on the grammar knowledge test were used to divide the 36 subjects into two groups, 18 subjects for each. The mean scores of these two groups were not significantly different. ($\bar{x}$ = 35.78, S.D. = 3.00 and $\bar{x}$ = 35.00, S.D. = 3.45, respectively).

4.2.2 Teaching Plans

Thirty teaching plans were designed to develop the subjects' grammar knowledge. Fifteen teaching plans with the use of multiple-choice exercises and tests were used with one subject group, who would be referred to hereafter as multiple-choice group (MC group). Another fifteen teaching plans with the use of error recognition exercises and tests would be used with the other subject group, referred to as error recognition group (ER group). Despite the different test formats used in the teaching plans, the fifteen teaching plans with the error identification version and those with multiple-choice version were aimed to develop the same 15 grammar points, i.e. present simple tense, past simple tense, subject verb agreement, preposition, article and so on. Each experimental group spent 15 weeks, two hours a week for one teaching plan, a total of 30 hours for 15 teaching plans.

4.2.3 Test Anxiety Questionnaire

A test anxiety questionnaire was adapted, based on Scott's (1986) and Cassady and Johnson's (2004) to measure the degree of test anxiety produced by multiple-choice and error recognition test formats before and after treatment period. The questionnaire consisted of 20 items related to how one generally feels when taking the two test formats. For example, *before taking this test, I am so nervous; I worry while I am taking this test, and so on.* This questionnaire was designed on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly agree" with values 1-5 assigned to them respectively. All the items were written in Thai to ensure that the intended meaning was conveyed.

4.3 Procedure

In the first week of the study, the 30-item grammar knowledge test was administered as the pre-test to measure the 36 subjects' knowledge of grammar and their homogeneity in terms of

English grammar knowledge. Right after taking each test format the subjects rated test anxiety toward each test format. The scores on the grammar knowledge test were used to divide the subjects into two experimental groups.

The subjects were divided into two groups; error identification group and multiple-choice group. Both groups were taught using 15 teaching plans employing error recognition exercises and multiple-choice exercises to develop their grammar knowledge. Before new grammar points were introduced through a new teaching plan, the grammar point just taught in the previous teaching plan was tested using two different test formats, error identification for error identification group and multiple-choice for multiple-choice group.

After 15 weeks, the same grammar knowledge test consisting of 30 items of multiple-choice and 30 items of error identification was given as a post-test to measure students' knowledge of grammar. Test anxiety questionnaire of the two test formats was also administered with exactly the same procedure as the pre-treatment one.

5. Results and Discussion

Table 1 compares each subject group's test anxiety produced by multiple-choice and error recognition test.

Table 1. Two subject groups' test anxiety produced by multiple-choice and error recognition formats

Group	Grammar knowledge test	Level of test anxiety				Decrease	Paired-sample t-test	
		Before treatment		After treatment			t-value	2-tail sig
		$\bar{x}$	S.D.	$\bar{x}$	S.D.			
MC group	MC version	3.10	0.38	2.83	0.72	0.27	-1.479	0.158
	ER version	3.30	0.37	3.21	0.60	0.09	-0.630	0.537
ER group	MC version	3.14	0.45	3.02	0.64	0.12	-0.596	0.559
	ER version	3.36	0.60	3.13	0.73	0.23	-0.897	0.382

Table 1 shows quite the same extent of subjects' test anxiety produced by two test formats before treatment. The level of test anxiety produced by multiple-choice of the MC group and the ER group were 3.10 and 3.14, while that produced by error recognition were 3.30 and 3.36, respectively. Both subjects group had higher level of anxiety produced by error recognition than multiple-choice, though non-significant.

For the MC group, after 15 weeks of treatment, the test anxiety of the MC group produced by multiple-choice reduced from 3.10 to 2.83, a non-significant decrease of 0.27, and their test

anxiety level produced by error recognition reduced from 3.30 to 3.21, a non-significant decrease of 0.09. There was a greater decrease in test anxiety produced by multiple-choice, a test format they were trained with during the 15 weeks of treatment, than the anxiety produced by error recognition part, the test format they were not trained with.

For the ER group, the test anxiety produced by multiple-choice reduced from 3.14 to 3.02, a non-significant decrease of 0.12, and their test anxiety level produced by error recognition reduced from 3.36 to 3.13, a non-significant decrease of 0.23 There was a greater decrease in test anxiety produced by error recognition, a test format they were trained with during the 15 weeks of treatment, than the anxiety produced by multiple-choice.

The findings demonstrated the influence of practice effect on test anxiety. The 15-week treatment given to the MC and ER subject groups helped familiarize the subjects with the test format in questions, which in turn, helped reduce their anxiety level. It is widely accepted that test anxiety affects test performance (Cassady and Johnson, 2002 cited in Rana and Mahmood, 2010), which would be discussed in the following section.

The findings about the reduction of test anxiety in both subject groups in the present study after 15 weeks of treatment may offer useful information on practice effect which helped reduce the subjects' anxiety. This is in line with what Madson and Murray (1984 cited in Scott, 1986) and Young (1999 cited in Trimoni and Shahini, 2011) who suggest that unfamiliarity with question types or exam formats can cause test anxiety. Therefore, Alcala (2002 cited in Trimoni and Shahini, 2011) proposes that in order to reduce test anxiety which influences students' performance, teachers can familiarize students with the exam format.

Another interesting finding of this present study was about the relationship between test anxiety and test performance. To establish a relationship between the subjects' performance and the test anxiety, the 36 subjects' scores in the multiple-choice part and error recognition part of the grammar knowledge test and their anxiety produced by the two test formats were analyzed using Product Moment Correlation Coefficient Test. The results of the analysis are presented in Table 2 below.

Table 2. Relationship between test scores and test anxiety

Group	Scores on the grammar test	Level of test anxiety	
		Before treatment	**After treatment**
		Pearson r	Pearson r
MC group	MC format	0.098	0.25
	ER format	-0.089	-0.392
ER group	MC format	0.253	-0.155
	ER format	-0.648**	-0.058

** Significant at the .01 level

Macrothink Institute™

For the MC group, it was found that the correlation between their pre-treatment score on multiple choice format and test anxiety produced by multiple-choice was 0.098, and the correlation between the pre-treatment error recognition scores and the test anxiety produced by error recognition was -.089. This indicated that there was no significant relationship between the MC group's test performance and test anxiety produced by the two test formats. The same case was found with their post treatment scores ($r = 0.25$, $r = -0.395$)

For the ER group, their pre and post treatment test scores on the multiple choice format were not significantly related to the test anxiety produced by the multiple choice test ($r = 0.0253$, $r = -0.155$). However, their pre-treatment test score on error recognition part of the test was significantly and negatively related to their anxiety produced by this format ($r = -.648$, $p < 0.01$), suggesting that the higher the test anxiety produced by the error recognition type, the lower their test scores on this test format, and vice versa. Nonetheless, no significant relation between their scores on error recognition format and test anxiety was found after the treatment ($r = -0.058$). This means that, after 15 weeks of treatment with error recognition exercises, they became more familiar with this test format so their anxiety decreased. This might confirm the prominent role of practice effect discussed previously.

The significant relationship between test anxiety produced by error recognition format and the ER group's test performance, i.e. the higher the test anxiety, the lower the test scores and vice versa is referred to as *deliberative anxiety*; this type of anxiety adversely affects test taker's performance. *Deliberative anxiety* takes different forms to harm learners' performance in various ways, through worry and self-doubt and reduces reducing participation and creating overt avoidance of the language. The debilitating physiological effects of anxiety interfere with individuals' performance and lead to poor academic performance (Tryron, 1980 cited in Chen, 2007).

Some studies have revealed *deliberative anxiety* on the students' performance; Rana and Mahmood (2010), for example, conducted a study to explore the relationship between test anxiety and academic achievement of students at the post graduate level. They were found that a significant negative relationship exists between test anxiety scores and students' achievement scores. Trifoni and Shahini (2011) also studied the effects of test anxiety on test performance of university students. They also found deliberative anxiety and its effects on their subjects' performance.

This present study supported previous research which has revealed a negative relation between test anxiety and students' performance (e.g., Hambree, 1988 cited in Hancock, 2001; Hancock, 2001; Chapell et al., 2005; Trifoni & Shahini, 2011). All these researchers have reached the conclusion that students performance and test anxiety level have a reverse ratio, meaning that when test anxiety level increases, students' performance decreases and vice versa.

6. Concluding Remarks and Recommendations for Further Studies

This study has provided useful information on test anxiety produced by test formats. It also demonstrated the practice effect of test format and the relationship between test anxiety

produced by multiple-choice and error recognition and test performance. The results of the present study have shown that in the pre-treatment, the two subjects' group had quite the same level of test anxiety produced by multiple-choice and error recognition. However, after 15 weeks of treatment, the two subject groups' test anxiety showed some differences which could be observed, though non-significantly. That is the test anxiety produced by the test format the subjects were trained reduced, indicating that the test practice as a result of the subjects being taught grammar points using multiple-choice and error recognition formats reduced their anxiety.

Moreover, the present study revealed a significant and negative relationship between test anxiety produced by error recognition and pre-treatment score. That is, the higher the test anxiety a test taker had on the error recognition type, the lower his test score was. This relation is referred to as *deliberative anxiety*; this type of anxiety adversely affects test taker's performance. However, no significant relation between their scores on error recognition format and test anxiety was found after the treatment. In other words, anxiety produced by error recognition test no longer affected the test performance of the ER group after treatment. The non-significant relationship between test anxiety produced by error recognition and test performance might be a result of practice effect of 15 weeks of treatment. In addition, the finding of this present study seemed to suggest that practice effects exerted their influence on unfamiliar test format (i.e. error recognition) but on familiar test format (i.e. multiple-choice).

The results of this present study will also be useful for classroom teachers who consider introducing new or unfamiliar test formats in the evaluation process. In order to reduce test anxiety that might be caused by unfamiliar test formats, teachers can familiarize the students with the test formats by a repeated use of the test formats through classroom activities such as exercises or quizzes. When the students are familiar with the test format, then that format can be used in the evaluation process to make sure that the students' performance will not be affected by test anxiety caused by the test formats used to evaluate their knowledge.

For further investigation, research would need to be conducted on the use of multiple-choice test and error identification tests in testing grammar knowledge to find out the effect of test anxiety produced by the two types of test formats with learners at different language proficiency levels and in different educational contexts. In addition, more research instruments such as observation, interview, etc. should be included in future studies in order to get in-depth information about test anxiety. This may also allow researchers to discover other interesting factors that may lead to test anxiety and to develop a viable tool for reducing test anxiety.

Acknowledgement

References

Birjandi, P., & Alemi, M. (2010). The Impact of Test Anxiety on Test performance among Iranian EFL Learners. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 4,

Macrothink Institute™

44-58. Retrieved from http://www.edusoft.ro/brain/index.php/brain/article/view/131

Cassady, J., & Johnson, E. (2002). Cognitive Test Anxiety and Academic Performance. *Contemporary Educational Psychology*, *27*, 270-295. http://dx.doi.org/10.1006/ceps.2001.1094

Chapell, M. et al. (2005). Test Anxiety and Academic Performance in Undergraduate and Graduate Students. *Journal of Education Psychology*, *97*, 268-274. http://dx.doi.org/10.1037/0022-0663.97.2.268

Chavous, T. (2008). Evaluation (Test) Anxiety. *Psychology of Classroom Learning*, *1*, 387-390. Retrieved from http://www.edb.utexas.edu/robinson/danr/Evaluation_anx.pdf

Currie, M., & Thanyapa, C. (2010). The effect of the multiple-choice item format on the measurement of knowledge of language structure. *SAGE journal*, 471-49. http://dx.doi.org/10.1177/0265532209356790

Chen, M. (2007). Test Anxiety Reading Anxiety and Reading Performance among University English as Second Language Learners. *MA. Thesis*, Ming Chuan University, Tai Pei: Taiwan.

Hancock, D. R. (2001). Effects of test anxiety and evaluative threat on students' achievement and motivation. *The Journal of Educational Research*, 284-290. Retrieved from http://www.jstor.org/discover/10.2307/27542336

Heaton. (1988). *Writing English Language Test*. (New ed.). New York: Longman.

Hughes. (1989). *Testing for Language Teachers*. New York: Cambridge.

Horwitz, & Young. (1999). *Language Anxiety from Theory and Research to Classroom Implications*. New York: Peason.

Kaewmala. (2012). The education failure- part 2: Test score, standards and accountability. [Online] Available: http://asiancorrespondent.com/76877/thai-education-part-2-test-scores-standards-and-accountability/ (Feb 27, 2012).

Khoii, R., & Shamsi, N. (2010) .The Effect of the Method on the Trait: Investigating theFunctionof No-Error Option in Grammar Error-Identification Items in Admission Tests. *Iranian EFL Journal*, *7*(2), 166-178. Retrieved from http://www.academia.edu/1051958/TheEffectoftheMethodontheTraitInvestigatingtheFunctionofNo-Error

Madsan, S. et al. (1983). *Techniques in testing*. New York: Oxford.

McNamara. (2000). *Language Testing*. New York: Oxford.

Nemati, A., & Habibi, P. (2012). The effect of practicing pranayama on test anxiety and test performance. *Indian Journal of Science and Technology, 5*, 2645-2650. Retrieved from http://www.indjst.org/index.php/indjst/article/viewFile/30438/26366

Rana, R., & Mahmood, N. (2010). The Relationship between Test anxiety and Academic Achievement. *Bulletin of Education and Research, 32*(2), 63-74. Retrieved from http://pu.edu.pk/images/journal/pesr/PDF-FILES/4-Rizwan%20Akram%20Rana.pdf

Scott, M. (1986). Student affective reactions to oral language tests. *Language Testing, 3(1),* 99-118. http://dx.doi.org/ 10.1177/026553228600300105

Shohamy, E. (1984). Does the testing method make a difference? The case of reading comprehension. *Language Testing, 1(2),* 147-170. http://dx.doi.org/10.1177/026553228400100203

The National Institute of Educational Testing Service. (2009). About O-NET. [Online] Available: http://www.niets.or.th/upload-files/uploadfile/5/5113f2fc40d9b7ccbf26972226c1a 536.pdf (May 25, 2009).

Trimoni, A., & Shahini, M. (2011). How Does Exam Anxiety Affect the Performance of University Students?. *Mediterranean Journal of Social Sciences, 2(2),* 93-100. Retrieved from http://www.mcser.org/images/stories/2_journal/mjssmay2011/9.pdf

REFERENCES

Alemi, M. & Miragha, A. (2012). A comparative study of testing grammar Knowledge of Iranian students between cloze and multiple-choice Tests, *MJAL, 4*(1), 16- 35.

Basic Education Core Curriculum B.E. 2551. (2008). Thailand's basic education core curriculum 2551: English version . Retrieved January 3, 2014, from http:// www.scribd.com/doc/124114840/Thailand-s-Basic-Education-Core-Curriculum-2551-English-version.

Baleghizadeh, S. & Zarghami, Z. (2012). The impact of conferencing assessment on EFL students' grammar learning. *Profile, 14* (2), 131-144.

Birjandi, P. & Alemi, M. (2010). The impact of test anxiety on test performance among Iranian EFL learners. *BRAIN: Broad Research in Artificial Intelligence and Neuroscience, 1*(4), 44-58.

Cassady, J. & Johnson, E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology, 27*, 270-295.

Chapell, M., et al. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Education Psychology, 97*, 268-274. http://dx.doi.org/ 10.1037/0022-0663.97.2.268

Chavous, T. (2008). Evaluation (test) anxiety. *Psychology of Classroom Learning, 1,* 387-390.

Currie, M. & Thanyapa, C. (2010). The effect of the multiple-choice item format on the measurement of knowledge of language structure. *Language Testing, 2*(4), 471-491. http://dx.doi.org/10.1177/0265532209356790

Chen, M. (2007). *Test anxiety, reading anxiety and reading performance among university English as second language learners*. Master's thesis, Ming Chuan University, Tai Pei: Taiwan.

Fitrini, G. (2011). Using mind mapping techniques in improving grammar mastery of the tenth graders of SMA Ma'arif Lawang. *SKRIPSI Jurusan Sastra Inggris - Fakultas Sastra UM., *1-18.

Gonzáles, A. B. (1996). Testing English as a foreign Language: an overview and some methodological considerations. *RESLA, 11,* 17-49.

Hancock, D. R. (2001). Effects of test anxiety and evaluative threat on students' achievement and motivation. *The Journal of Educational Research , 94,* 284-290.

Heaton. (1988). *Writing English Language Test*. (New ed.). New York: Longman.

Hughes. (1989). *Testing for Language Teachers*. New York: Cambridge.

Horwitz & Young. (1999). *Language Anxiety from Theory and Research to Classroom Implications.* New York: Pearson.

Khoii, R. & Shamsi, N. (2010) .The effect of the method on the trait: investigating the function of no-error option in grammar error-identification items in admission tests. *Iranian EFL Journal*, *7*(2), 166-178.

Madson, S., et al. (1983). *Techniques in testing*. New York: Oxford.

Nemati, A. & Habibi, P. (2012). The effect of practicing pranayama on test anxiety
    and test performance. *Indian Journal of Science and Technology , 5,*
    2645-2650.

Prapawadee, N. (2005). *The effects of formal and conversational Thai explanations in
    grammatical computer-assisted language learning (CALL) Packages on
    Students' Attitudes and Learning Outcomes. MA. Thesis*, Prince of Songkla
    University, Had Yai: Thailand.

Rana, R., & Mahmood, N. (2010). The relationship between test anxiety and
    academic Achievement. *Bulletin of Education and Research, 32*(2), 63-74.

Rokni, S. & Seifi, A. (2013). The effect of dialog journal writing on EFL learners'
    grammar knowledge. *Journal of Language and Linguistic Studies, 9(*2), 57-67.

Scott, M. (1986). Student affective reactions to oral language tests. *Language Testing,
    3*(1), 99-118. http://dx.doi.org/ 10.1177/026553228600300105

Shohamy, E. (1984). Does the testing method make a difference? the case of reading
    comprehension. *Language Testing, 1*(2), 147-170. http:// dx.doi.org/10.1177
    /026553228400100203

The National Institute of Educational Testing Service. (2009). About O-NET.
    Retrieved January 25, 2014, from. http://www.niets.or.th/upload-
    files/uploadfile/5/5113f2fc40d9b7ccbf26972226c1a536.pdf

Thornbury , S. (1999). *How to teach grammar*. Charlbury: Bluestone Press.

Trimoni, A. & Shahini, M. (2011). How does exam anxiety affect the performance
    of university students?. *Mediterranean Journal of Social Sciences, 2*(2),
     93-100.

APPENDIX A

Grammar knowledge tests

Grammar Knowledge Test

Name_____Class_____No._____

Part 1: Error recognition

Directions: Identify the underlined part that is grammatically wrong. (Items 1-30)

1. **(a)** The passengers **(b)** have just boarded the plane when the pilot announced that they **(c)** would have to return **(d)** to the terminal.

2. **(a)** Normally I **(b)** have finished work at 5.00, but this week **(c)** I am working until 6.00 **(d)** to earn a bit more money.

3. **(a)** During a depression, **(b)** economic conditions are far **(c)** worst than **(d)** they are during a recession.

4. The readers of the magazine **(a)** invited to send letters with their **(b)** personal information **(c)** to the magazine office **(d)** within two weeks.

5. If you wish **(a)** to complete the job **(b)** successful, you have to **(c)** follow through on the plans that **(d)** were made.

6. One of **(a)** the latest methods **(b)** of quarrying stone **(c)** are **(d)** to cut the stone with a jet torch.

7. The results of research **(a)** are considered satisfactory, even though **(b)** there is complaint about **(c)** how many money **(d)** was spent.

8. The atoms of a crystal always **(a)** arrange **(b)** them **(c)** into a specific array, **(d)** called a lattice.

9. After **(a)** the first year of employment, the company **(b)** offers **(c)** a two-week vacation **(d)** for employees.

10. The boat **(a)** was sunk **(b)** quickly but **(c)** fortunately everybody **(d)** was rescued.

11. Job enrichment is a technique **(a)** used to increase **(b)** satisfaction workers' by **(c)** giving them more **(d)** responsibility.

12. **(a)** I'm sure Amy will **(b)** lend you the money. I will be very **(c)** surprised if she **(d)** refused.

13. One **(a)** important branch of linguistics **(b)** is semantics, which **(c)** analysis the **(d)** meaning of the words.

14. The two brothers **(a)** were eating when the sheriff **(b)** came **(c)** seeing **(d)** them.

15. **(a)** Drink mineral water has **(b)** long been believed **(c)** to have beneficial **(d)** effects on people.

16. **(a)** A little of doctors **(b)** practicing in the North American colonies **(c)** had formal training **(d)** in the field of medicine.

17. Waterwheels, which **(a)** appeared **(b)** on fourth century, **(c)** were probably the first machines not **(d)** powered by humans or animals.

18. There is **(a)** a blue car parked outside. I don't know who **(b)** the owner of **(c)** a blue car **(d)** is.

19. Thomas Eakins **(a)** studied not only painting **(b)** and anatomy **(c)** when he was training to **(d)** become an artist.

20. Seeing a ghost last night was a really **(a)** <u>terrified</u> experience. **(b)** <u>Afterwards</u> everybody **(c)** <u>was</u> very **(d)** <u>shocked</u>.

21. Chicago's Field Museum **(a)** <u>is</u> one of **(b)** <u>the largest</u> and **(c)** <u>better known</u> natural history museums **(d)** <u>in</u> the United State.

22. When **(a)** <u>taking</u> part **(b)** <u>in</u> winter sports, we should wear clothing **(c)** <u>that</u> is lightweight, **(d)** <u>warmth</u>, and suitable for the activity.

23. If you **(a)** <u>take</u> **(b)** <u>more exercise</u> in the past, you **(c)** <u>would</u> probably feel
 (d) <u>healthier.</u>

24. This school **(a)** <u>is</u> only **(b)** <u>for</u> children **(c)** <u>where</u> **(d)** <u>first language</u> is not English.

25. Jane worked hard **(a)** <u>at school</u> last term **(b)** <u>but</u> this term **(c)** <u>she</u> **(d)** <u>hadn't worked</u> hard.

26. I **(a)** <u>saw</u> you in the park yesterday. You **(b)** <u>are sitting</u> on the grass and **(c)** <u>reading</u> **(d)** <u>a book</u>.

27. Look**(a)** <u>at</u> the river. It **(b)** <u>flows</u> very fast today – **(c)** <u>much faster</u> than **(d)** <u>usual</u>.

28. If there are **(a)** <u>some</u> letters **(b)** <u>for me</u>, can you send **(c)** <u>them</u> **(d)** <u>on</u> to this address?

29. Barbara **(a)** <u>works</u> for **(b)** <u>a company</u> **(c)** <u>who</u> makes **(d)** <u>washing</u> machines.

30. If David **(a)** <u>revises</u> his final-year project **(b)** <u>more carefully</u>, **(c)** <u>he</u> would **(d)** <u>have obtained</u> a higher grade.

Grammar Knowledge Test

Name_____Class_____No._____

Part 2: Multiple- choice

Directions: Choose the correct answer to complete the sentences. (Items 1-30)

1. After Steve ……………………. the last cup of coffee, he made another pot.

          a. drinks   b. drank

          c. has drunk   d. had drunk

2. Poaching of elephants for ivory and meat……………….. a serious problem in many Asian countries.

          a. remains   b. is remained

          c. is remaining   d. has remained

3. African elephants are larger, fiercer, and ………….. to tame than Asian elephants.

          a. difficulter   b. as difficult

          c. more difficult   d. the most difficult

4. The personal computers that…………………… last week have already arrived and are being installed by the technicians.

          a. order   b. ordered

          c. were ordering   d. were ordered

5. It is important to follow through on the plans that were made if you wish to complete the job………………. .

          a. succeed   b. success

          c. successful   d. successfully

6. One of the most exciting branches of electrical science which is taught at most universities…………………. electronics.

          a. is   b. are

          c. was   d. were

7. I don't want you to pay for me. I'll pay for ………………………… .

          a.mine   b.me

          c. myself   d. I

8. What is the name of the man………….. car you borrowed?

          a. who   b. which

          c. where   d. whose

9. There was once a widespread………………. that all lizards were poisonous.

          a. belief   b. believe

          c. believing   d. to believe

10. You're always tired. If you didn't go to bed so late every night, you……………. tired all the time.

          a. weren't   b. didn't be

          c. will be   d. wouldn't be

11. Sarah Knight ………………………. a fascinating account of a journey she made from Boston to New York in 1704.

          a. write   b. wrote

          c. was writing   d. has written

12. I saw an accident last night. Somebody ……………. an ambulance but nobody was injured.

          a. called   b. was called

          c. was calling   d. had called

13. Paula says she's planning on resigning soon because she expects…………………. accepted into an MBA program.

        a. get   b. to get

        c. getting   d. that getting

14. In 1944, biologist Charles Michener devised a system for……………the approximately 20,000 species of bee.

        a. classify   b. to classify

        c. classifying   d. that classify

15. The American designers Louis Comfort Tiffany took………………. of his inspiration from nature.

        a. few   b. many

        c. much   d. number

16. …………………championship automobile and motorcycle races take place in Daytona Beach, Florida.

        a. little   b. many

        c. much   d. amount

17. Mark and Carol are expecting us. They will be disappointed if we…………. .

        a. aren't come   b. weren't come

        c. don't come   d. haven't come

18. According………… polls taken throughout the twentieth century, Lincoln and Washington are the preeminent American presidents.

        a. on   b. with

        c. to   d. of

19. I saw the accident this morning. A car crashed into a tree. Luckily, the driver of………car wasn't hurt.

        a. a   b. any

        c. the   d. some

20. I had never expected to get the job. I was really………….. when I was offered it.

        a. amaze   b. amazed

        c. amazing   d. amazement

21. Glucose does not have to be digested,…………. it can be directly into the bloodstream .

        a. so   b. while

        c. since   d. such

22. The deep oceans contain some of ………………….. living creatures.

        a. stranger   b. as strange

        c. the strangest   d. so strange as

23. Steel is alloyed with manganese to increase its strength, hardness, and ……………. to heat.

        a. resistance   b. resistant

        c. resistable   d. resist

24. If there ………….. no floods last year, the crop would have been better now.

        a. were   b. had been

        c. will be   d. would be

25. Our football team won a lot of games last season but we…………. any games this season.

        a. don't win   b. didn't win

        c. aren't wining   d. hasn't won

26. When I arrived, everybody was sitting round the table with their mouths full.
They ……………… .

        a. eat   b. are eating

        c. were eating   d. had eaten

27. Maria is in Britain at the moment. She………………….. English.

        a. learns   b. is learning

        c. was learning   d. has learnt

28. Can you give me ………………. information about places of interest in the town.

        a. a   b. an

        c. any   d. some

29. A building……………….. was destroyed in the fire has now been rebuilt.

        a. who   b. which

        c. where   d. whose

30. The new software training program that will be set up should improve
our ………….. in working.

        a. employees' skills   b. employees skills'

        c. skills' employees   d. skills employees'

APPENDIX B

Test anxiety questionnaires

<u>แบบสอบถามสำหรับข้อสอบแบบตรวจจับข้อผิด</u>

แบบสอบถามชุดนี้ มีจุดมุ่งหมายเพื่อวัดระดับความเครียดของผู้เข้าสอบ เกี่ยวกับลักษณะของ
ข้อสอบในการทดสอบไวยากรณ์ ข้อมูลที่ได้รับจากแบบสอบถามจะถูกเก็บเป็นความลับและไม่มี
ผลประการใดกับผู้เข้าสอบ จึงขอความร่วมมือตอบแบบสอบถามตามความเป็นจริง

**คำชี้แจง: โปรดกาเครื่องหมาย ☑ ลงในช่องที่ตรงกับความเป็นจริงของนักเรียน
มากที่สุด ระดับการให้คะแนนมีดังนี้**

5 = **เห็นด้วยมาก** 4 = **เห็นด้วย** 3 = **เห็นด้วยปานกลาง** 2 = **ไม่เห็นด้วย** 1 = **ไม่เห็นด้วยมาก**

ข้อ	คำถาม	ระดับให้คะแนน				
		1	2	3	4	5
ก่อนลงมือทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า...						
1	รู้สึกท้อแท้					
ในระหว่างทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า...						
2	มีความรู้สึกกังวล					
3	ต้องใช้สมาธิในการคิดหาคำตอบให้ตรงประเด็นของคำถาม					
4	ไม่สามารถใช้ความรู้ที่มีอยู่ได้					
5	รู้สึกว่าทำข้อสอบไม่ได้					
6	รู้สึกผ่อนคลายเมื่อมีนักเรียนคนอื่นนั่งทำข้อสอบอยู่ด้วย					
หลังจากทำข้อสอบแบบตรวจจับข้อผิด ข้าพเจ้า...						
7	มีความกังวล ในผลคะแนนที่จะได้รับเป็นอย่างมาก					
8	รู้สึกว่าน่าจะได้คะแนนสูงกว่าความรู้จริงของข้าพเจ้า					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
ในภาพรวมข้อสอบแบบตรวจจับข้อผิด						
9	ทำให้ข้าพเจ้าเป็นกังวลอย่างมาก					
10	ข้าพเจ้าไม่คุ้นเคยกับข้อสอบลักษณะนี้					
11	ข้าพเจ้าสามารถเดาคำตอบได้เมื่อทำข้อสอบลักษณะนี้					
12	ข้าพเจ้ารู้สึกเป็นความท้าทายมากกว่ากังวล เมื่อพบคำถามยาก					
13	ข้าพเจ้ามั่นใจว่าข้อสอบลักษณะนี้ วัดความสามารถที่แท้จริงของข้าพเจ้าได้					
14	การทำข้อสอบลักษณะนี้ ความกังวลที่มีทำให้ข้าพเจ้าขาดความระมัดระวังในการทำข้อสอบ					
15	การทำข้อสอบลักษณะนี้ ทำให้ประสิทธิภาพในการทำข้อสอบของข้าพเจ้าลดลง					
16	ถ้าข้าพเจ้าทำข้อสอบลักษณะอื่น ข้าพเจ้าคิดว่าน่าจะทำคะแนนได้ดีกว่า					
17	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ซึ่งคุมสอบโดยผู้คุมสอบคนอื่นๆ คะแนนที่ได้จะต่างจากวันนี้					
18	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ชุดเดิมในวันอื่นที่ไม่ใช่วันนี้ คะแนนที่ได้จะเหมือนเดิม					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
19	ข้าพเจ้าเชื่อว่าในการทดสอบไวยากรณ์จำเป็นต้องใช้ข้อสอบลักษณะนี้					
20	ข้าพเจ้าชอบทำข้อสอบลักษณะนี้					

แบบสอบถามสำหรับข้อสอบแบบเลือกตอบ

แบบสอบถามชุดนี้ มีจุดมุ่งหมายเพื่อวัดระดับความเครียดของผู้เข้าสอบ เกี่ยวกับลักษณะของข้อสอบในการทดสอบไวยากรณ์ ข้อมูลที่ได้รับจากแบบสอบถามจะถูกเก็บเป็นความลับและไม่มีผลประการใดกับผู้เข้าสอบ จึงขอความร่วมมือตอบแบบสอบถามตามความเป็นจริง

คำชี้แจง: โปรดกาเครื่องหมาย ☑ ลงในช่องที่ตรงกับความเป็นจริงของนักเรียนมากที่สุด ระดับการให้คะแนนมีดังนี้

5 = **เห็นด้วยมาก** 4 = **เห็นด้วย** 3 = **เห็นด้วยปานกลาง** 2 = **ไม่เห็นด้วย** 1 = **ไม่เห็นด้วยมาก**

ข้อ	คำถาม	ระดับให้คะแนน				
		1	2	3	4	5
ก่อนลงมือทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
1	รู้สึกท้อแท้					
ในระหว่างทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
2	มีความรู้สึกกังวล					
3	ต้องใช้สมาธิในการคิดหาคำตอบให้ตรงประเด็นของคำถาม					
4	ไม่สามารถใช้ความรู้ที่มีอยู่ได้					
5	รู้สึกว่าทำข้อสอบไม่ได้					
6	รู้สึกผ่อนคลายเมื่อมีนักเรียนคนอื่นนั่งทำข้อสอบอยู่ด้วย					
หลังจากทำข้อสอบแบบเลือกตอบ ข้าพเจ้า...						
7	มีความกังวล ในผลคะแนนที่จะได้รับเป็นอย่างมาก					
8	รู้สึกว่าน่าจะได้คะแนนสูงกว่าความรู้จริงของข้าพเจ้า					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
ในภาพรวมข้อสอบแบบเลือกตอบ						
9	ทำให้ข้าพเจ้าเป็นกังวลอย่างมาก					
10	ข้าพเจ้าไม่คุ้นเคยกับข้อสอบลักษณะนี้					
11	ข้าพเจ้าสามารถเดาคำตอบได้เมื่อทำข้อสอบลักษณะนี้					
12	ข้าพเจ้ารู้สึกเป็นความท้าทายมากกว่ากังวล เมื่อพบคำถามยาก					
13	ข้าพเจ้ามั่นใจว่าข้อสอบลักษณะนี้ วัดความสามารถที่แท้จริงของข้าพเจ้าได้					
14	การทำข้อสอบลักษณะนี้ ความกังวลที่มีทำให้ข้าพเจ้าขาดความระมัดระวังในการทำข้อสอบ					
15	การทำข้อสอบลักษณะนี้ ทำให้ประสิทธิภาพในการทำข้อสอบของข้าพเจ้าลดลง					
16	ถ้าข้าพเจ้าทำข้อสอบลักษณะอื่น ข้าพเจ้าคิดว่าน่าจะทำคะแนนได้ดีกว่า					
17	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ซึ่งคุมสอบโดยผู้คุมสอบคนอื่นๆ คะแนนที่ได้จะต่างจากวันนี้					
18	ถ้าข้าพเจ้าทำข้อสอบลักษณะนี้ชุดเดิมในวันอื่นที่ไม่ใช่วันนี้ คะแนนที่ได้จะเหมือนเดิม					

ข้อ	คำถาม	ระดับการให้คะแนน				
		1	2	3	4	5
19	ข้าพเจ้าเชื่อว่าในการทดสอบไวยากรณ์จำเป็นต้องใช้ข้อสอบลักษณะนี้					
20	ข้าพเจ้าชอบทำข้อสอบลักษณะนี้					