

ทัศนคติของผู้เข้าสอบที่มีต่อแบบทดสอบภาษาอังกฤษสำหรับวิศวกร และนักเทคโนโลยีไทย : นวัตกรรมทดสอบในรูปแบบคอมพิวเตอร์

ภัทมา ปทุมทอง¹ และ ณัฏจรี จาตุรพิทักษ์กุล²
มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี แขวงบางมด เขตทุ่งครุ กรุงเทพฯ 10140

บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อสำรวจทัศนคติของผู้เข้าสอบที่มีต่อแบบทดสอบภาษาอังกฤษสำหรับวิศวกรและนักเทคโนโลยีไทย ซึ่งเป็นนวัตกรรมทดสอบในรูปแบบคอมพิวเตอร์ และเพื่อค้นหาความสัมพันธ์ระหว่างผลสอบกับทัศนคติของผู้เข้าสอบที่มีต่อแบบทดสอบนี้ กลุ่มตัวอย่างของการศึกษาคือนักศึกษาชั้นปีที่ 4 มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรีจำนวน 250 คน เครื่องมือวิจัยที่ใช้คือแบบสอบถามจัดลำดับทัศนคติ (สเกลคำตอบ 4 ระดับ) และแบบทดสอบภาษาอังกฤษสำหรับวิศวกรและนักเทคโนโลยีไทย ผลการศึกษาพบว่าผู้เข้าสอบมีทัศนคติในทางบวกต่อแบบทดสอบนี้ โดยเฉพาะเรื่องความหลากหลายของรูปแบบการตอบแบบทดสอบและกิจกรรมในแบบทดสอบ ประโยชน์ของแบบทดสอบ และการจัดการทดสอบ อย่างไรก็ตามผลการศึกษาไม่พบความสัมพันธ์ระหว่างผลสอบกับทัศนคติของผู้เข้าสอบที่มีต่อแบบทดสอบ ผลการศึกษานี้สามารถเป็นประโยชน์ต่อครูผู้สอนในการเตรียมผู้เข้าสอบให้พร้อมกับการทดสอบในอนาคต และผู้จัดการทดสอบในการจัดการทดสอบที่เหมาะสม และอาจจะท่อนให้เห็นความเที่ยงตรงของแบบทดสอบภาษาอังกฤษสำหรับวิศวกรและนักเทคโนโลยีไทยได้

คำสำคัญ : ทัศนคติของผู้เข้าสอบ / แบบทดสอบภาษาอังกฤษสำหรับวิศวกรและนักเทคโนโลยีไทย / การทดสอบในรูปแบบคอมพิวเตอร์

* Corresponding author: E-mail: natjiree.jat@kmutt.ac.th

¹ นักศึกษาปริญญาโท สาขาการสอนภาษาอังกฤษ คณะศิลปศาสตร์

² อาจารย์ สายวิชาภาษา คณะศิลปศาสตร์

Attitudes of Test Takers towards the Test of English for Thai Engineers and Technologists (TETET) : An Innovative Computer-Based Testing

Patthama Pathumthong¹ and Natjiree Jaturapitakul^{2*}

King Mongkut's University of Technology Thonburi, Bangmod, Thungkhru, Bangkok 10140

Abstract

The aims of this study were to survey the attitude of test takers towards the Test of English for Thai Engineers and Technologists (TETET) which is an innovative Computer-Based Testing (CBT), and to find out the relationship between the test result and the attitudes towards the test. The subjects were 250 fourth-year undergraduate students at King Mongkut's University of Technology Thonburi (KMUTT) who volunteered to take the TETET. A 4 Likert-Scale questionnaire and the TETET were two instruments used in this study. The findings revealed that the test takers have positive attitudes towards the test especially in terms of variety of item test types and test tasks, the usefulness of the test, and the test administration. However, there were no significant relationships between the attitudes and the test result. The results of the study could be beneficial for teachers and test administrators in preparing prospective test takers for appropriate test administration and might shed some light and reflect on the validity of TETET.

Keywords : Attitudes of test takers / Test of English for Thai Engineers and Technologists / TETET / Computer-based Testing

* Corresponding author : natjiree.jat@kmutt.ac.th

¹ Graduate student, English Language Teaching, School of Liberal Arts.

² Lecturer, Department of Language Studies, School of Liberal Arts.

1. Introduction

In the last two decades, computer technology has been playing an essential role in every field. People use it in the work place, school, business and other aspects. For education, the computer is considered as a new media that is useful in teaching and learning. New computer items and programs are employed in order to integrate with courses and to be more convenient for both teachers and learners.

In language testing, this state-of-the-art technology has become more significant for measurement [1]. Many organizations have decided to change the assessment tool from Paper-Based Testing (PBT) to Computer-Based Testing (CBT) in order to be more contemporary in this digital age. The potential reasons that make the CBT more popular are that it offers immediate scoring and result reporting, more flexible test scheduling, and reduces the cost of test production, administration and scoring [2]. Noyes and Garland [3] divide the advantages into categories such as the richness of the interface that makes use of the two-way interchange between a computer program and users. For example, users can get immediate feedback from a computer while the program itself is learning about the users from their responses. In addition, CBT scoring results are faster and have greater accuracy because it reduces human error in scoring manually. Lastly, CBT is less overwhelming to test takers because questions are presented on a screen at a time rather than in an intimidating test booklet [4].

Although CBT became more popular because of its advantages, it still has some disadvantages that are of concern. For the technology aspect, a computer characteristic such as font size display has the most significant effect for the test takers [5]. Clariana and Wallace [6], and Noyes et al.[3] mention that test takers have more difficulty in reading

text on screen, especially when the test item fits in more than one page. Furthermore, the technical equipment e.g. hardware and software may not be available or work properly or cause malfunction problems. So, a technician is needed to monitor the situation during the test.

Regarding the new trend of testing, as a university which is prestigious in engineering and technology, King Mongkut's University of Technology Thonburi (KMUTT) has launched a new version of testing called "Test of English for Thai Engineers and Technologists" or TETET. It is a computer-based English for Specific Purposes (ESP) test which has been designed to serve university students particularly in engineering and technology faculties and people working or wanting to work in engineering and technology positions. This computer-based ESP test was carefully developed by the School of Liberal Arts, KMUTT, circumspectly designed to avoid the disadvantages of the CBT as previously mentioned as much as possible, and is concerned about test validity and reliability in measuring English skills needed by engineers and technologists in workplace environments in Thailand.

The TETET is designed based on extensive needs from stakeholders such as engineering students, university administrators, human resource managers from leading companies in Thailand, and engineers. All those needs were analyzed and used as a framework in designing the test. In terms of content, the TETET is engineering-oriented but not biased towards any particular discipline and covers the main work requirements of Thai engineers and technologists. The test covers the four language skills and consists of 12 sections which will be described with more details in the research instrument part. This test takes about 2 hours to complete.

There are various test type items used in the TETET such as multiple choices, short answer, sequencing words into sentences, drag and drop objects, inputting number, open-ended extended writing, and close-ended and open-ended gap-fill. With a variety of test types used, this is likely to offer and provide more interactive and authentic resulting in more motivation and better performance of the test takers according to Noyes et al. [3].

All in all, the TETET is considered very new and innovative in terms of test content, test tasks and various test formats used for particular groups of test takers. Though the TETET has been used for two years so far, test designers and administrators have never done any investigation towards test takers' reaction which may affect their attitude and in turn their performance impacting the test validity.

A recent concern among researchers in the field of language testing has found that test takers' characteristics have an influence on test takers' performance in the test [7]. Kunan cited in Jaturapitakkul [8] clarifies the types of test takers' characteristics in terms of personal aspects such as age, gender, or native language, educational characteristic e.g. background knowledge or previous experience in English language as well as cognitive psychological and social characteristics which include learning style and strategy, attitude and motivation, aptitude and intelligence, anxiety, personality, and risk taking.

In this study, attitude was selected as a significant variable to be investigated since numerous studies have shown the importance of attitudes as they can directly affect test scores. Allport cited in Marlin and Birch [9] defines attitudes as the most indispensable concept in social psychology. Eagly and Chaiken cited in Jaturapitakkul [8] clarify attitudes as a psychological tendency that is

expressed by evaluating a particular thing in the levels of favor and disfavor. Positive attitudes of test takers towards a test were found to bring about better results and help improve test performance. Furthermore, positive attitude will promote test takers' higher motivation to participate and perform a test.

From the aforementioned information, it is therefore interesting and would be useful to investigate test takers' attitudes towards the TETET, either positive or negative, and how they perceive the test, especially for a new test type like this. In addition, it might be worth trying to look further if there is any relationship between test results and test takers' attitudes towards the test. The results of the study could be beneficial in preparing prospective test takers for appropriate test administration in the future and might shed some light and reflect on the validity of the TETET.

2. Purposes of the Study

The objectives of this study are twofolds.

1. To investigate the test takers' attitudes towards the Test of English for Thai Engineers and Technologists (TETET).
2. To explore the relationship between the test result and the test takers' attitudes towards the TETET.

3. Research Methodology

3.1 Subjects

The subjects of this study were 250 fourth-year undergraduate students at King Mongkut's University of Technology Thonburi (KMUTT). There were 61 students from the Faculty of Engineering, 112 students from the Faculty of Science, 20 students from the Faculty of Industrial Education, and 57 students from the Faculty of

Information Technology. All of these faculties were major disciplines at KMUTT. Students volunteered to take the TETET before their graduation in the academic year 2011.

3.2 Instruments

3.2.1 A 4 Likert-Scale Questionnaire

A 4-Likert-Scale paper-based questionnaire was used in this research to survey test takers' attitudes and perceptions towards the TETET. The questionnaire was developed based on the objectives of this study, key characteristics of the TETET, literature review of CBT, and previous studies on test takers' attitudes towards the ESP test ([10] and [8]). The questionnaire was translated into Thai in order to be easy for the subjects to understand. It consisted of 3 parts as follows:

1. The first part concerned the test takers' background concerning their field of study.
2. The second part concerned the test takers' opinion towards the TETET. There were sixteen close-ended statements which covered attitudes towards the test itself, the benefit of the test, and the convenience when administering the test. A 4-point attitude scale was employed in the questionnaire which included 4) Strongly agree, 3) Agree, 2) Disagree, and 1) Strongly disagree.
3. Part three provided some spaces for test takers to give comments on the TETET's merits and areas needing improvement.

Before administering the questionnaire, all content was validated and received a high rating from the three experts in terms of congruence with the objectives and the appropriateness of questions to the key characteristics of the TETET.

Before conducting the main study, a questionnaire was piloted with 83 subjects and it was found that the Cronbach Alpha reliability estimate was .859, meeting the required level of at least .70 [10] and indicating a high degree of reliability. The instrument was then revised a bit to be more complete and used in the main study. Moreover, the Cronbach Alpha value in the main study was .938 which meant the questionnaire had a high level of reliability.

3.2.2 The Test of English for Thai Engineers and Technologists (TETET)

The TETET is a computer-based test that was developed to assess students' English proficiency particularly in the engineering and technology fields of study or people who work in this field. All test input is delivered via computers and all test taker responses are recorded onto a computer. The TETET covers four skills of English—listening, speaking, reading, and writing—and consists of 12 sections with various kinds of test types as indicated in Table 1. The content in all sections is designed to mirror the real-world uses of English experienced and encountered by Thai engineers and technologists. The test takes about 2 hours to finish.

Table 1 Specification of Test of English for Thai Engineers and Technologists (TETET)

Skill	Section	Item type	No. of items	Time
Reading	1. Survival reading	Multiple choices	5	3 minutes
	2. Reading from the Internet	Table-filling (Drag and drop information)	10	15 minutes
	3. Reading technical manuals	Drag and drop objects	10	15 minutes
	4. Reading e-mails	Multiple choices	5	10 minutes
Listening	1. Listening to meetings	Dictation & short answer	3/ 3	5 + 10 minutes
	2. Listening to informal conversations	Multiple choices	5	10 minutes
	3. Listening on telephones (AVRS)	Step record (inputting number)	8	10 minutes
Writing	1. Writing technical reports	Gap-filling	10	15 minutes
	2. Writing working memoranda	Sequencing	5	10 minutes
	3. Writing e-mails	Composition	1	15 minutes
Speaking	1. Speaking in short questions-and-answer format	Short answer (Voice-recording)	8	4 minutes
	2. Speaking in longer business communications	Leaving a message (Voice-recording)	2	5 minutes

In regard to the test scores reports, they are classified into 8 bands (0-7). Before graduation, the undergrad students are recommended to take the test and should have a TETET band score at level 3 which is tentatively equivalent to TOEIC 365-470 or TOEFL at 450 [11].

3.3 Data Collection

Due to constraints related to computers and subjects availability, the data was then collected 8 times according to the schedule of the tests which were held on January 19, 20, 26, and 27, and March 1, 2, 8, and 9 in 2012.

The researcher distributed the paper-based questionnaire to the test takers and explained the purpose of this research and how to complete the survey. After the subjects finished their test, they completed the questionnaire right away. The questionnaire took approximately 5 minutes to complete.

3.4 Data Analysis

Data analysis procedures were employed according to the reserch questions as follows.

1. The first research question asked, “What are the test takers’ attitudes towards the Test of English for Thai Engineers and Technologists (TETET)?”

In response to this question, the mean score for each statement was computed. By applying the Weight Mean Score (WMS) method [13], the criteria for interpreting the findings were as follows:

3.26 - 4.00 = Strongly Agree

2.51 - 3.25 = Agree

1.76 - 2.50 = Disagree

1.0- 1.75 = Strongly Disagree

In addition, the grand mean scores were calculated to find out whether the test takers had positive attitudes towards the test. The set criteria was >2.5 which indicated positive attitudes

towards the test.

2. The second research question was, “Is there any relationship between test results and test takers' attitudes towards the TETET?”

In response to this question, the mean score and percentages of test takers' TETET band scores were computed as a prelude to other statistical tests and used to investigate the construct validity of the test. In addition, Spearman's rho correlation was employed in order to investigate the relationship between the test results and test takers' attitudes

towards the test.

4. Results

Research question 1: What are the test takers' attitudes towards the Test of English for Thai Engineers and Technologists (TETET)?”

To answer research question one, the data from the questionnaire is presented into three parts; attitudes towards the test itself, the usefulness of the test, and the test administration.

Table 2 Attitudes towards the Test Itself

No.	Statements	Mean	Interpretation
1.	The instructions in each part are clear.	3.24	Agree
2.	Text type and the size of the font are appropriate.	3.41	Strongly Agree
3.	The test items are suitable with the duration.	3.24	Agree
4.	The settings and situations in the test are clear.	3.20	Agree
5.	The duration of the test is suitable.	3.13	Agree
6.	There are varieties of item test types e.g. multiple choice, drag and drop objectives, short answers, gap-filling, voice recording.	3.50	Strongly Agree
7.	There are varieties of content and activities in the test tasks e.g. reading an e-mail, listening to the meeting, writing agenda, or business communication.	3.45	Strongly Agree
8.	You are satisfied with the page design of this test.	3.13	Agree

The findings in Table 2 reveals that the test takers strongly agreed that the TETET provides varieties of item test types (Mean=3.50) and also provides varieties of contents and activities in the test tasks such as reading an e-mail, listening to the meeting, or writing agenda (Mean=3.45). Furthermore, they strongly agree that the text type and the font size are appropriate for reading on a computer screen

(Mean=3.41). So, it can be interpreted that the test takers have a very positive attitude towards the various kinds of item test types used and the variety of the content and test tasks in the TETET which are likely to help motivate students in taking the test. Suitable text type and font size also supported test takers to complete the test.

Table 3 The Usefulness of the Test

No.	Statements	Mean	Interpretation
9.	This test is suitable to measure the English proficiency of people who study in the field of engineering, science, and technology.	3.18	Agree
10.	This test can really measure your English proficiency.	3.20	Agree
11.	This test is useful for yourself and your career in the near future.	3.32	Strongly Agree

The finding in Table 3 shows that the test takers strongly agreed that the TETET is useful and by taking this test brings them benefits which can be used in the future (mean=3.32). They also agreed that the test can measure their English proficiency (mean=3.20) and is appropriate for people in engineering, science and technology fields (mean =

3.18). This result is supported by the comments in the open-ended question part which reflect the test takers' satisfaction. So, it can be interpreted that the TETET provides benefits for the test takers in terms of measuring their English proficiency in the particular field which is needed to be used in their future career.

Table 4 The Test Administration

No.	Statement	Mean	Interpretation
12.	The place is convenient and appropriate.	3.52	Strongly Agree
13.	The computers, microphones, and the headsets support you to do the test.	3.30	Strongly Agree
14.	The interaction between you and the test program is not difficult (user friendly).	3.25	Agree
15.	The introducing video gives a clear explanation.	3.26	Strongly Agree
16.	Overall, you are satisfied with this test.	3.27	Strongly Agree

The finding in Table 4 reveals that the test takers strongly agreed that the test room is convenient and appropriate (mean=3.52). They also strongly agreed that the equipment and facilities in the test room such as computers, microphones, and headsets support them to do the test (mean=3.30). The overall finding of this table shows that the test takers were quite satisfied with the TETET. Then, it can be said that the test room and facilities supported the test takers when taking the test and positively influenced their attitude towards doing CBT tests like the TETET.

In order to see test takers' overall attitudes whether positive or not towards the test, the mean score of the attitude scale for each item and the grand mean score in the test takers' questionnaire were calculated, and it was found that the mean score of each item is higher than 3 and the grand mean score is 3.10 which is higher than the set criteria (> 2.5). So, it can be interpreted that the test takers have a positive attitude towards the TETET.

At the end of the questionnaire, there is an open-ended question asking for comments from the test takers on the advantages and disadvan-

tages of the test and what could be improved. The following table is the comments given by the test takers. They are ranged from the most to the least responses.

Table 5 Comments from the Test Takers

No.	Comments	Number of Respondents	Percentage
Advantages of TETET			
1	It is a new kind of test which has a variety of tasks and formats.	22	8.8
2	It is easy to use.	20	8
3	It is appropriate to measure the English proficiency.	14	5.6
4	The benefits of the test are very helpful for the test takers' future career.	13	5.3
Disadvantages of TETET			
1	The speaking part should provide a longer time to answer.	18	7.2
2	The time allocation for the whole test is too short.	9	3.6
3	An instruction in each part is too complicated.	8	3.2
4	The sound from the headset is not clear enough.	6	2.4
5	The seats are too close and they cause problems in the speaking part because the noise may affect others.	6	2.4
6	Using a computer may cause some technical problems such as page error or system malfunction.	5	0.8
7	The content of the test focuses too much on the engineering field which confuses some science students.	5	2
8	The font size in some parts is difficult to read, especially in the e-mail reading part.	5	2
9	The microphone is difficult to use. It is not able to record very well.	5	2
10	It takes too much time to check and announce the test results.	3	1.2
Suggestions			
1	The test should be held more often.	7	2.8
2	There should be more test items in order to be more varied.	7	2.8
3	There should be more public relations campaigning about the test.	3	1.2
4	The test should be held on a weekend, so it will not have an effect on the test takers who have class on weekdays.	2	0.8

All these suggestions are considered as minor technical problems and test administration which are not connected to the test takers' computer skills. It is then assumed that engineering and technology students are familiar with the use of computer equipment.

Research question 2: "Is there any relationship between test results and test takers' attitudes towards TETET?"

As a prelude to other statistical tests and the investigation of the construct validity of the test, the mean score and percentages of test takers' TETET results in the form of band scores were computed in Table 6.

Table 6 The Results of TETET

Band Score	0	1	2	3	4	5	6	7
No. of Test Takers	1	34	67	95	34	13	6	0
Percentage	0.4%	13.6%	26.8%	38.0%	13.6%	5.2%	2.4%	0.0%
Overall Band Score	2.76							

N = 250 test takers

The finding reveals that the average results of the test takers was approximately at level 3 band score (mean = 2.76) which meets the suggested level (See Appendix A for TETET full descriptor). The results reveal that the test takers' abilities reached the university expectation which requires the undergrad students to score at least level 3. By

reaching the university's expectation at level 3, this also means that the TETET has construct validity to some extent.

To see if there is any relationship between the test results and the test takers' attitudes towards the TETET, Table 7 reveals the results.

Table 7 Correlations between Test Band Scores and Test Takers' Attitudes

			Test band scores	Attitudes
Spearman's rho	Test band scores	Correlation Coefficient	1.000	.060
		Sig. (2-tailed)	.	.348
		N	250	250
	Attitudes	Correlation Coefficient	.060	1.000
		Sig. (2-tailed)	.348	.
		N	250	250

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

Table 7 reveals that there was no significant relationship between the test band scores and the test takers' attitudes ($r = .060$, $p < 0.01$). So, it means that higher band scores do not imply positive attitudes.

5. Discussion

With regard to the first research question, the finding indicates that the test takers have positive attitudes towards the TETET which is considered an innovative Computer-Based Test (CBT). Most

of them are satisfied with the overall picture of the test especially the availability of various item test types and test tasks, usefulness of the test, and the facilities in the test room.

Regarding the varieties of item test types used in the TETET, there are many different kinds of test items which test takers need to interact with such as multiple choices, table-filling, drag and drop objects, gap-filling, sequencing, composition, and voice recording. In addition, various kinds of authentic test tasks such as reading an e-mail, listening to a meeting, writing agenda, or conducting business communication are offered in the TETET. By providing more varieties of item test types and authentic test tasks via a computer, this could challenge test takers to be more interactive with the test. By doing so, this could lead test takers to be more motivated and have good attitudes toward the test. This is supported by Bailey cited in Jaturapitakkul [8] that feeling involved with a more authentic and interactive test will make test takers more motivated. Pino-Silva [14] also supports that the test takers have positive attitude in using the computerized test because they find the computerized test dynamic and motivating.

In regard to the usefulness of the TETET, test takers considered it useful for themselves and their career in the near future. For the former, test takers got a chance to assess their English proficiency via the TETET. They could know themselves how proficient they are and whether or not they are ready for a job market in their field. In addition, the test takers were informed before administering the test that TETET band scores are equivalent to TOEIC scores which can be of optimum use for test takers' job applications. For the latter, since content and test tasks of the TETET were designed based on a large-scale survey of the English needs of

engineers and technologists in Thailand, test tasks are then authentic and close to what test takers are expected to do in their future career. Test takers then get a chance to be exposed to real English in the workplace in the test. In addition, Thailand is now becoming a part of the ASEAN community. English is then unavoidable to be used for communication among countries. At the same time, it is likely that there is a higher chance of competition in a job market. Thus, using English in the workplace, especially English for Specific Purpose (ESP) will be very important for the test takers because it can reflect their professional abilities and qualifications [15]. By realizing the test usefulness and importance of English nowadays, test takers may have positive attitudes towards the TETET.

The last issue concerned with test takers' positive attitudes towards the TETET is well-equipped facilities in the test room. This clearly deals with external factors which could then affect test takers' attitudes as well as test performance. This is also supported by Brown [4] that external factors, for example, room temperature, microphone malfunction, soundless loud speaker, and room environment could affect the test takers' performance. If facilities in the test room support test takers to perform a test, it is likely that the test takers could have positive attitudes towards the test and also impact the test result.

With regard to the finding of the second research question, average test band scores was at level three which meets university expectations. Brown [4] claims that test construct is valid when the test measures what it claims, or purports, to be measuring and the scores can be used for certain purposes. Considering the TETET construct, it was designed to measure workplace English proficiency of those who are or are going to be engineers and

technologists and was also supported by the report on TETET validity as being equivalent to TOEIC scores [11]. As the test takers' average band scores met the required level and the test takers could consider making use of their test scores for their job application, this could reflect that the TETET is valid for those who study or work in the engineering and technology fields.

However, though the test results are satisfactory in terms of meeting the recommended test level as well as test takers having positive attitudes towards the test, there is no significant relationship between these two variables. It can be undoubtedly assumed that the positive attitude results were shown because the test takers are engineering and technology students, so they are familiar with using computer equipment and high technology items. Furthermore, they are fourth-year students who are nearly graduated and are going to apply for a job; hence their willingness to participate in the test could influence their positive attitudes. However, these positive attitudes might not help increase the test results much. The average band score level 3 that they got could clearly reflect their actual English proficiency, not the result of a positive or negative attitude towards the test. The test result is not influenced by their positive or negative attitudes towards the test.

From the findings of this study, this could bring us to some implications and recommendations for both teaching and testing aspects as follows:

- In terms of teaching, to prepare students to be ready for their future career, students can be prepared with a focus on English in the workplace. The same kinds of content or test tasks in the TETET can be integrated into some English courses like English for Employment, and English for Specific Purposes. Some

authentic activities i.e. job interview, writing a job application form, and resume can also be introduced in class to have students gain more exposure in using English.

- In terms of testing, to prepare students to be ready for the TETET, there might be a training session to introduce them to a technique to respond to new item test types i.e. drag and drop objects, and voice recording before the test administration, or students could be provided additional time to digest information about how to do a test via a video presentation of the TETET that is available online. In addition, to help facilitate test takers as optimally as possible, test administrators or room monitors need to check all equipment and facilities and replace those that do not work properly.
- Some more research studies regarding attitudes towards the TETET and test performance should be conducted with more subjects in this field and new target groups like graduate students. This might present more valid data and yield different findings concerning the relationship between test takers' attitudes and test performance.

6. Conclusion

In summary, this study aimed to investigate the test takers' attitudes toward the TETET and see whether the attitude results correlated with the test results. It was found that the test takers have positive attitudes towards the variety of test tasks and content, the usefulness of the TETET for their future career, and the test administration. Furthermore, the test results reflected the test validity according to the expected band score that they achieved. Nonetheless, there was no relationship

between the attitudes and the test results. English in the workplace should be introduced in class and test preparation should be conducted as much as possible in order to assist students taking the test.

7. References

1. Mill, C. N, Potenza, M. T., Fremer, J. J. and Ward, W. C., (2002), *Computer –based testing: building a foundation for future assessments*, Lawrence Erlbaum Associates.
2. Wang, H., (2009), “Computer-Based & Paper-Pencil Test Comparability Studies. Test, Measurement & Research Services” *Bulletin 2004*, vol.9, pp.1-6.
3. Noyes, J.M. & Garland, K.J., (2008), “Computer- vs. paper-based tasks: Are they equivalent?,” *Ergonomics*, vol. 51, no.9, pp. 1352-1375. (Online) Available: http://www.princeton.edu/~sswang/Noyesa_Garland_computer_vs_paper.pdf
4. Brown, J.D., (1997), “Computer in language testing: present research and some future directions.” *Language Learning & Technology 1*. (Online) Available: <http://llt.msu.edu/vol1num1/brown/default.html>.
5. McKee, L. M. & Levinson, E. Mo., (1990), “A review of the computerized version of the Self-Directed Search”. *Career Development Quarterly*, vol.38, no.4, pp. 325-333.
6. Clariana, R. & Wallace, P., (2002), “Paper-based versus computer-based assessment: key factors associated with the test mode effect”. *British Journal of Educational Technology*, vol.33, no.5, pp. 593-602.
7. Bachman, L. F. & Palmer, A. S., 1996, *Language Testing in Practice*, Oxford University Press.
8. Jaturapitakkul, N., (2007), *The effects of language ability and engineering background knowledg on ESP reading ability of Thai graduate students, their test taking strategies and attitudes towards the test*, Doctoral dissertation. English as an International Language Program, Graduate School, Chulalongkorn University.
9. Marlin, T. & Birch, A., (1998), *Introductory Psychology*, Macmillan Press LTD.
10. Vongpadungkia, N., (2006), *A Study of selected predictors of English reading test performance in consumer product marketing of fourth-year university students*. Doctoral dissertation. English as an International Language Program, Graduate School, Chulalongkorn University.
11. Watson Todd, R., (2007), *Test of English for Thai Engineers and Technicians (TETET) Technical Report*. Unpublished raw data.
12. Fraenkel, J.R. & Wallen, N.E., (2000), *How to design and evaluate research in education*, McGraw-Hill.
13. Yamane, T., (1973), *Statistics: an introduction analysis. 2nd edition*, Harper and Row.
14. Pino-Silva, J., (2008), “Student perceptions of computerized tests”, *ELT Journal*, vol. 62, no. 2, pp.148-156.
15. Al-Khatib, M. A. (2005), “English in the workplace: The analysis of the communication needs of tourism and banking personnel”. *Asian EFL Journal*, 7(2). (Online) Available: http://www.asian-efl-journal.com/June_05_akh.php

APPENDIX A TETET Full Descriptor

Level	Descriptor
7	Has fully operational command of the language in all workplace situations, both formal and informal.
6	Has competent operational command of the language in nearly all workplace situations.
5	Has operational command of the language in most workplace situations, with occasional inaccuracies, inappropriacies and misunderstandings in some complicated or unfamiliar situations.
4	Has generally effective command of the language in simple workplace situations, with some inaccuracies, inappropriacies and misunderstandings, and may have difficulty in complicated or unfamiliar situations.
3	Has partial command of the language in simple workplace situations, but likely to make many mistakes, and has great problems in dealing with complicated or unfamiliar situations.
2	Has some basic ability to use the language in simple workplace situations, although with frequent problems in understanding and expression. Unable to use the language in complicated or unfamiliar situations.
1	No real communication is possible except for very basic information using isolated words or short formulae in familiar situations. Has great difficulty understanding the language.
0	No evidence to show the ability to use the language beyond a few isolated words.