

The Concurrent Validity of Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing) with the Computer System under the Common European Framework of Reference for Languages

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Abstract

The purpose of this research study is to measure the concurrent validity of Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing) of with the computer system under the Common European Framework of Reference for Languages. The sources of the data were 30 examinees who voluntarily took Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing), Srinakharinwirot University – Standardized English Test and International English Language Testing System. Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing) has levels: A2, B1 and B2. Each level had 10 examinees. The data were the English proficiency test results of the volunteers. They had to submit their test results through the electronic survey form and attach the test result files. The database of the volunteers' test results was created by the researchers. The concurrent validity was measured under Common European Framework of Reference for Languages of Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing), which was relevant to International English Language Testing System and Srinakharinwirot University – Standardized English Test, by using Kendall's tau-b formula. It was found that the levels of Common European Framework of Reference for Languages of Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing) were significantly related to International English Language Testing System and Srinakharinwirot University – Standardized English Test, at the significance level of .01 in all aspects. The levels of Common European Framework of Reference for Languages of Sukhothai Thammathirat Open University's English Proficiency Test (E-Testing) related to International English Language Testing System and Srinakharinwirot University – Standardized English Test were high in all aspects. For listening and International English Language Testing System, the correlation coefficient was .757. For listening and Srinakharinwirot University – Standardized English Test, it was .700. For grammatical structures and International English Language Testing System, it was .804. For grammatical structures and Srinakharinwirot University – Standardized English Test, it was .779. For reading and International English Language Testing System, it was .890. For reading and Srinakharinwirot University – Standardized English Test, it was .812. The aspect with the most significant relationships between International English Language Testing System and Srinakharinwirot University – Standardized English Test was reading.

Keywords: *English proficiency test, English proficiency test of the open university, the Common European Framework of Reference for Languages (CEFR), computer-based test, computer-based English proficiency test, concurrent validity*

1. Introduction

The Common European Framework of Reference for Languages: CEFR is an English teaching guideline for language instructors in all countries in the European Union in order to set teaching and linguistic skill evaluation standards (Council of Europe, 2001). CEFR is widely used for setting the minimum linguistic criteria for various purposes. It is also used in Thailand. There are policies for improving English standards in institutes at the higher education level. Accordingly, the institutes must provide English proficiency tests for students according to standards that are equivalent to CEFR or other standards in order to evaluate their proficiency levels (Higher Education Commission, 2016).

Sukhothai Thammathirat Open University's English Proficiency Test (STOU-EPT). It has been used for evaluating the English proficiencies of the applicants who want to study for bachelor's degrees at the university since 1999. The paper pencil test evaluates five aspects: dialogue, vocabulary, structure, writing and reading. All papers were stored in the storage developed by the Office of Registration, Records and Evaluation. The mentioned test has limitations in the selection of the five multiple choices and the listening skill evaluation because it is conducted during the final examinations of the university that provides distance education. Thus, the examinations across the country have limitations regarding the materials in the examination venues.

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In 2010, the university developed STOU-EPT according to CEFR, which is an international framework that is consistent with the policies for improving the English standards of the institutes at the higher education level of the Higher Education Commission as announced in the Higher Education Commission's Announcement B.E. 2559 about the English proficiencies under CEFR in the aspects of listening, structure and reading. To test the mentioned proficiencies, there were various types of questions and answers as well as the listening skill test that the qualities of voices in all examinations must be consistent in order to standardize the examinations and to consistently test the examinees' knowledge and skills. Hence, the Office of Registration, Records and Evaluation developed the paper-based STOU-EPT into an electronic test and called it Sukhothai Thammathirat Open University English Proficiency Test (E-Testing) or STOU-EPT (E-Testing) (Jiraro and Angsuchoti, 2021).

As previously mentioned, it can be seen that STOU-EPT (E-Testing) has a structure consistent with CEFR. It was developed by instructors with experience in developing tests according to CEFR. Therefore, the examinees can trust the qualities of the test at a certain level. To ensure that the test is reliable and complete according to the principles of tests and evaluations, the qualities of the test should be checked in order to confirm the correctness and the suitability of the test according to CEFR. To ensure that it is reasonable, correct and reliable; it should be conducted with research methods by applying the principles of measurements and evaluations about quality assurance in order to obtain the complete test with the assured qualities according to CEFR. Particularly, there are the criteria of the relationship between the English proficiency levels in STOU-EPT (E-Testing) for considering the consistency with the test results from the English proficiency tests in other institutes inside and outside the countries under CEFR and meeting the standards widely accepted by examinees. The consistencies with Srinakharinwirot University – Standardized English Test (SWU-SET) in the country and the tests provided by foreign organizations were evaluated. The consistency with the International English Language Testing System or IELTS was also tested in order to ensure that the test results of STOU-EPT (E-Testing) are accepted by students and people who are interested in the test for improving their English proficiencies and referring to the test results in other organizations or institutes.

2. Literature Review

The Common European Framework of Reference for Languages (CEFR) is the standard for evaluating linguistic proficiencies created by European Union (EU). Its objective is to be the guidelines for learning, teaching and evaluating second or foreign languages. In 2002, the EU required CEFR to be used for evaluating linguistic proficiencies. CEFR is a widely accepted standard for prioritizing individuals' linguistic proficiencies. The evaluation under CEFR can be divided into six levels: A1, A2, B1, B2, C1 and C2.

For Thailand, the Ministry of Education applied CEFR to primary schools and secondary schools. The ministry also coordinated with British Council to develop programs for training instructors and educational workers in order to educate the trainees about CEFR until they can apply it to evaluate their students' English proficiencies. Then, there were the policies for the English standards of the institutes at the higher education level. The institutes had to test their students' English proficiencies according to the standards equivalent to CERF or other standards in order to evaluate their proficiencies (Higher Education Commission, 2016).

Sukhothai Thammathirat Open University developed the English Proficiency Test or STOU-EPT (E-Testing) with the computer system under the Common European Framework of Reference for Languages (CEFR) in 2010, according to the Ministry of Education's policies for improving the English standards in the institutes. It was conducted for the first time in 2017. It has three parts: Part 1: Listening, Part 2: Structure and Part 3: Reading. The examinees can log in by inputting their test schedule IDs, personal IDs and examinee card IDs shown in the e-tickets sent by e-mail used for applying the test. After taking the test at the selected times on the selected dates, they can know the test results instantly. The test results have three levels: A2, B1 and B2. A2 is the English Basic User Level of Elementary English. B1 and B2 are the English Independent User Levels of Intermediate English (B1 Level) and Upper-Intermediate English (B2 Level).

The English proficiency tests of other institutes of high education in Thailand with the criteria consistent with CEFR include the Srinakharinwirot University – Standardized English Test or SWU-SET, which is provided by the Language Centre of the International Colleges for Sustainability Studies of Srinakharinwirot University. It has 100 items evaluating listening skills, vocabulary, usage, structures, grammar and reading skills (Language Centre of Srinakharinwirot University, 2019). The English proficiency test with the criteria consistent with CEFR provided by foreign organizations widely accepted in Thailand consists of the International English Language Testing System or IELTS, which was provided from the cooperation between the British Council, IDP: IELTS Australia and Cambridge Assessment English. The test has two forms: the paper-based test and the computer-based test. Both forms have similar items and contents. It has four parts: listening, reading, speaking and writing. The listening part takes 30 minutes. The reading part has three articles, and it takes 60 minutes. The writing part has two items, and it takes 60 minutes. For the speaking part, the examinees have to be tested by native speakers. It has two forms: communications and opinions that consist of two parts, including personal information and given topics (IELTS, 2019). Both SWU-SET and IELTS are considered to the standardized test consistent with CEFR, which can evaluate the concurrent validity of STOU-EPT (E-Testing).

The concurrent validity of the test was consistent with the research studies about the concurrent validity of linguistic tests. For example, Hoffman et. al. (2011) researched the consistency with the concurrent validity and the structures of the speaking proficiency of school-age children with linguistic impairments. The data were collected from 216 children with the impairments. They were evaluated with the Test of Language Development Primary, Third Edition (TOLD-P:3) (Newcomer & Hammill, 1997) (cited in LaVae M. Hoffman & et. al., 2011). Their understanding of spoken language was evaluated with the Comprehensive Assessment of Spoken Language (CASL) (Carrow-Woolfolk, 1999, recited in Hoffman & et. al., 2011). The relationships of the test scores were analyzed according to the concurrent validity between both tests with Pearson's product-moment correlation coefficient. The consistency of the structures was checked by the confirmatory factor analysis. It was found that the scores from TOLD-P:3 and CASL that a significant relationship at the significance level of .001. Pearson's product-moment

correlation coefficient was .596. It was found that TOLD-P:3 had two components, while CASL had only one factor.

Eisenberg & et. al. (2019) checked the concurrent validity of the speaking test for preschool-age children with the Fluharty Preschool Speech and Language Screening Test (Fluharty-2) (Fluharty, 2001) (cited in Eisenberg & et. al., 2019) and the disciplinary test for evaluating the linguistic proficiencies of three-year children. The number of children was 62. The data were measured from both tests, and then the concurrent validity of the tests was analyzed by calculating Pearson's product-moment correlation coefficient from the scores. It was found that the scores from both tests had a significant relationship at the significance level of .001. Pearson's product-moment correlation coefficient was .722.

According to the studies checking the qualities of the linguistic tests, it could be seen that the tests checked the concurrent validity by identifying the relationships between the tests developed by the researchers and the standardized test with the scores of the same examinees. If the tests had significant relationships with the standardized tests, then it would show that the tests had concurrent validity. Accordingly, the researchers were interested in analyzing the concurrent validity of STOU-EPT (E-Testing) by analyzing the relationships of the linguistic proficiencies of the examinees and that in other tests consistent with CEFR, including SWU-SET and IELTS, in order to check the qualities of STOU-EPT (E-Testing) and to obtain the data for improving the qualities of the test in terms of correctness, appropriateness and standardization.

3. Research Objectives

To evaluate the concurrent validity of STOU-EPT (E-Testing) and the other standard tests that passed the criteria of CEFR.

4. Research Method

The present study evaluated the concurrent validity of STOU-EPT (E-Testing) and the tests that passed the criteria of CEFR. The methodology is as follows.

4.1. Methodology

- i. Select the volunteers with the proficiencies from A2 Level to B2 Level who took the STOU-EPT (E-Testing) in 2019 and could conveniently take SWU-SET and IELTS.
- ii. Protect the rights of the samples by the researchers. Explain the objective of the study to the samples by phone. Provide opportunities for the volunteers to participate in the study voluntarily. Keep the data confidential. Present the overview of the data without identifying individuals and damaging the individuals or organizations.
- iii. Send the 30 volunteers to take the English proficiency tests consistent with the criteria of CEFR, including SWU-SET and IELTS. Use to research fund to pay for the registration fees of the two institutes for all examinees.
- iv. Collect the volunteers' English proficiency test results from the two institutes submitted through and attached to the electronic survey form by the volunteers.
- v. Create a database of the volunteers' test results by the researchers in order to collect the data and use the data for evaluating the concurrent validity of STOU-EPT (E-TESTING), SWU-SET and IELTS.

4.2. Participants

The participants were selected with the purposive sampling method. They had different proficiency levels in order to cover from A2 Level to B2 Level. They passed STOU-EPT (E-Testing). Their test results in all aspects were at A2 Level (10 participants), B1 Level (10 participants) and B2 Level (10 participants).

The total number of participants was 30. They took SWU-SET and IELTS. However, one participant did not take SWU-SET. The number of the remaining informant was 29. There were two participants who did not take IELTS. The number of the remaining informant was 28.

The secondary data were collected. The data were the English proficiency test results of the volunteers. They had to submit their test results through the electronic survey form and attach the test result files. The database of the volunteers' test results was created by the researchers.

4.3. Data Collection

The secondary data were collected. The data were the English proficiency test results of the volunteers. They had to submit their test results through the electronic survey form and attach the test result files. The database of the volunteers' test results was created by the researchers.

4.4 Instrument

The record form of the test results of the volunteers who took SWU-SET and IELTS

4.5 Data Analysis

The consistency of the proficiencies of the examinees in STOU-EPT (E-Testing), SWU-SET and IELTS was analysed with the frequency and the percentage of the proficiencies in each aspect. The concurrent validity of the test results from STOU-EPT (E-Testing), SWU-SET and IELTS according to the levels of CEFR with the relationship analysis using Kendall's tau-b formula, which is the formula for analysing the relationships between the variables with ordinal scale. The analysed data were from the same units (Gibbons & Chakraborti, 2014) that were the proficiencies of the same examinees in the tests.

5. Findings and Discussion

The analysis results of the consistency of the proficiency levels of the examinees and the concurrent validity of STOU-EPT (E-Testing), SWU-SET and IELTS can be summarised as follows.

5.1 The Consistency of the Skill Levels of the Examinees in STOU-EPT (E-Testing), SWU-SET and IELTS under CEFR

Regarding the listening skill levels under CEFR in STOU-EPT (E-Testing), SWU-SET and IELTS, it was found that all examinees who took STOU-EPT (E-Testing) at A2 Level and B2 Level were also at A2 Level and B2 Level if they took IELTS and SWU-SET. Nevertheless, the examinees who were at B1 Level after taking STOU-EPT (E-Testing). There were those at B1 Level (50 per cent) if they took IELTS and those at A2 Level (40 per cent).

For the examinees who were at B1 Level after taking SWU-SET, there were those at B1 Level after taking STOU-EPT (E-Testing) (20 per cent) and those at A2 Level after taking SWU-SET (70 per cent). There were those at B1 Level after taking STOU-EPT (E-Testing) and B2 Level after taking IELTS and SWU-SET (10 per cent).

The proficiency levels regarding structures under CEFR in STOU-EPT (E-Testing), SWU-SET and IELTS were evaluated from writings. It was found that all examinees taking STOU-EPT (E-Testing) at A2 Level still were at A2 Level after taking SWU-SET and IELTS. The examinees who were at the B2 Level after taking STOU-EPT (E-Testing) mostly were at the A2 Level after taking IELTS (60 per cent) and B1 Level (40 per cent).

Among the examinees at B1 Level after taking STOU-EPT (E-Testing), most of them were at A2 Level after taking SWU-SET (80 per cent) and B1 Level (20 per cent). Among the examinees at B2 after taking

STOU-EPT (E-Testing), most of them were at B2 Level after taking IELTS and SWU-SET (87.50 per cent and 77.78 per cent, respectively) as shown in Table 2.

Regarding the reading skill levels from STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR, it was found that all examinees taking STOU-EPT (E-Testing) at A2 Level were also at A2 Level after taking IELTS and SWU-SET. Among the examinees who were at B1 Level after taking STOU-EPT (E-Testing), most of them were also at B1 Level after taking IELTS (80 per cent) and A2 Level (20 per cent).

For the examinees who were at B1 Level after taking STOU-EPT (E-Testing), most of them were at A2 Level after taking SWU-SET (80 per cent) and at B1 Level (20 per cent). Among the examinees who were at the B2 Level after taking STOU-EPT (E-Testing), most of them were also at the B2 Level after taking IELTS and SWU-SET (100.00 per cent and 77.78 per cent, respectively) as shown in Table 3.

Table 1. The Consistency of the Examinees' Listening Skill Levels in STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR

level		A2		B1		B2		Total	
		IELTS	SWU-SET	IELTS	SWU-SET	IELTS	SWU-SET	IELTS	SWU-SET
STOU-EPT	A2	10 100%	10 100%	-	-	-	-	10 100%	10 100%
	B1	4 40.00%	7 70.00%	5 50.00%	2 20.00%	1 10.00%	1 10.00%	10 100%	10 100%
	B2	-	-	-	2 22.22%	8 100%	7 77.78%	8 100%	9 100%

Table 2. The Consistency of the Examinees' Proficiency Levels Regarding Structures in STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR

level		A2		B1		B2		Total	
		IELTS*	SWU-SET	IELTS*	SWU-SET	IELTS*	SWU-SET	IELTS*	SWU-SET
STOU-EPT	A2	10 100%	10 100%	-	-	-	-	10 100%	10 100%
	B1	6 60.00%	8 80.00%	4 40.00%	2 20.00%	-	-	10 100%	10 100%
	B2	-	-	1	2	7	7	8	9

* the examinees' writing skill levels in IELTS

Table 3. The Relationships of the Examinees Reading Skill Levels in STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR

Level	A2		B1		B2		Total		
	IELTS	SWU-SET	IELTS	SWU-SET	IELTS	SWU-SET	IELTS	SWU-SET	
STOU-EPT	A2	10 433%	10 100%	-	-	-	-	10 100%	10 100%
	B1	2 20.00%	8 80.00%	8 80.00%	2 20.00%	-	-	10 100%	10 100%
	B2	-	-	-	2 22.22%	8 100.0%	7 77.78%	8 100%	9 100%

5.2. The Evaluations of the Concurrent validity of STOU-EPT (E-Testing), IELTS and SWU-SET in the Aspects

Regarding the evaluations of the concurrent validity of STOU-EPT (E-Testing), IELTS and SWU-SET for the skills, the relationships of the skill levels of the examinees under CEFR in the aspects of listening, structures and reading in STOU-EPT (E-Testing), IELTS and SWU-SET were analysed by using Kendall's tau-b formula. The findings were summarised as follows.

By analysing the relationships of the CEFR Levels of STOU-EPT (E-Testing), IELTS and SWU-SET with Kendall's tau-b formula, it was found that the CEFR Levels of STOU-EPT (E-Testing), IELTS and SWU-SET were significantly and statistically related at the significance level of .01 in the aspects of listening, structures and reading. By considering the relationships of the CEFR levels of STOU-EPT (E-Testing), IELTS and SWU-SET, it was found that the levels were higher in all aspects. The levels were .700 - .890. The highest CEFR levels of STOU-EPT (E-Testing) and IELTS were in the aspect of reading as shown in Table 4.

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Table 4. The Analysis of the Relationships of the CEFR Levels of STOU-EPT (E-Testing), IELTS and SWU-SET

		Listening		Structure Part		Reading Part	
		IELTS	SWU-SET	IELTS (Writing)	SWU-SET	IELTS	SWU-SET
Listening	STOU EPT	.757**	.700**				
Structure				.804**	.779**		
Reading						.890**	.812**

5.3 Discussion

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According to the analysis results about the concurrent validity of the tests from analysing the relationships of the proficiency levels under CEFR in STOU-EPT (E-Testing), IELTS and SWU-SET with Kendall's tau-b formula, it was found that the proficiency levels in STOU-EPT (E-Testing) had the significant relationships with that in IELTS and SWU-SET in all aspects. This was consistent with the research study

by Hoffman & et al. (2011) and that of Eisenberg & et al. (2019), who evaluated the concurrent validity of the linguistic tests developed by them and the standardised tests by analysing Pearson's correlation coefficient. They found that the relationships between the test scores from both tests were significant, even though they used different formulas. The data of the mentioned studies were from the test scores, while the data of this study were from analysing the proficiency levels of the examinees under the principle of the concurrent validity of the developed test and the standardised tests. According to the test results, both types of tests were related. Hence, it could be summarised the developed test was standardised with concurrent validity.

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These showed that the proficiency levels under CEFR from STOU-EPT (E-Testing) that were consistent with the proficiency levels of the tests meeting the criteria of CEFR. The test results that were accurate and reliable were useful for the university for providing STOU-EPT (E-Testing) for the students and the people interested in the test to evaluate their English proficiencies that would be their improvement data. Especially for the distance education of the open university, the students must learn and improve themselves. The system of STOU-EPT (E-Testing) could facilitate the mentioned education since the examinees would receive their test results instantly and they could access the test conveniently.

This was because the test has been provided at the common venue and other 10 examination venues for the whole year in every part of the country. It was beneficial for related courses in order to obtain the data from improving and developing courses. The test results were also reliable and referable for the English proficiency evaluations of other organisations.

Considering the relationships at the levels, it was found that the consistency percentages of the proficiency levels from STOU-EPT (E-Testing), IELTS and SWU-SET at B1 Level and B2 Level were relatively high for IELTS and SWU-SET and the consistency percentages at A2 Level were low. STOU-EPT (E-Testing) resulted in the CEFR levels being higher than that of IELTS and SWU-SET. There might be errors in the thresholds of the scores in STOU-EPT (E-Testing) because the threshold range was relatively narrow, and the score range of the B1 Level was quite wide. Therefore, the examinees at B1 Level obtained the scores at A2 Level in the other standardised tests. This was consistent with EF (2019), which stated that standard setting was a process linking the opinions of the experts and the score interpretation for setting the thresholds for the levels of scores. Selecting the experts and explaining to them the process might have errors since it was dependent on their discretion. If the process could collect data from experts with the specified qualifications, then the process would be successful.

6. Conclusion

By analysing the relationships of the proficiency levels in STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR. The sources of the data were examinees who voluntarily took STOU-EPT (E-Testing), SWU-SET and IELTS. The descriptive analysis was analysed with the frequency and the percentage of the proficiencies in each aspect. The consistency of the proficiencies test by using Kendall's tau-b formula. Regarding the listening skill levels, it was found that the level of STOU-EPT (E-Testing) at A2 Level and B2 Level high relations IELTS and SWU-SET. Nevertheless, 50 percent of B1 Level after taking STOU-EPT (E-Testing) related with IELTS and 20 percent level related with SWU-SET. The proficiency levels regarding structures, it was found that A2 Level were highly relations and B2 Level after taking STOU-EPT (E-Testing) mostly were at the A2 Level after taking IELTS and B1 Level. Among the examinees at B1 Level after taking STOU-EPT (E-Testing), most of them were at A2 Level after taking SWU-SET and were at B2 Level after taking IELTS. Regarding the reading skill levels, it was found that A2 Level were highly relations. B1 Level after taking STOU-EPT (E-Testing), most of them were also at B1 Level after taking IELTS but A2 Level after taking SWU-SET. B2 Level after taking STOU-EPT (E-Testing), most of them were also at the B2 Level after taking IELTS and SWU-SET. The proficiency levels in STOU-EPT (E-Testing), IELTS and SWU-SET under CEFR were significantly and statistically related at the significance level of .01 in the aspects of listening, structures and reading. The proficiency

levels in STOU-EPT (E-Testing) under CEFR were associated with that in IELTS and SWU-SET in all aspects. The highest relationship levels in IELTS and SWU-SET were in the aspect of reading.##
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