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The Use and Effectiveness of Thai and English Questions and Responses in Multiple-Choice and Open- Ended Tests of EFL Reading Comprehension : A Comparative Study of Test Results

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Abstract

Results of EFL reading comprehension tests written in two different languages, native Thai and target English, were compared and examined in terms of the effectiveness of different question types and of different test formats, which were multiple choice and open - ended. It was found that students with low proficiency of English scored higher in the Thai version test, particularly in the multiple-choice application and open-ended inference questions. However, there was no significant difference between scores gained from both Thai and English version tests among high proficiency students.

Rationale

Students are often required to read English textbooks in their field of study to keep up with the latest developments in science and technology. This is particularly true at university level. Thus, reading comprehension is greatly emphasized and tested. Many techniques for assessing students' reading comprehension have been developed in and outside Thailand. Perhaps one of the most interesting techniques has been developed by Shohamy (1984) and Zupnik (1985) in Israel by using the native language in test questions. Their studies revealed that different languages in test questions and in responses to the same EFL reading comprehension text showed different results. In Shohamy's study, multiple-choice native Hebrew items were found easier than multiple-choice target English among low level students. Zupnik (1985) found that students did not always understand the answers they gave to comprehension questions. Rather, the students just knew where to find the answers appearing in the English reading text by making use of the rhetorical functions of the language when they were asked to respond in English. She found that students gained higher scores in the English version test than the Hebrew. The students could quote rhetorically the answers from the text when answers were required in English, but they could not do so when they had to answer in Hebrew because they did not understand the text deeply.

In English reading classes, Thai teachers often use the mother tongue, particularly when giving explanations or asking questions. This is confirmed by Ek-Un's (1990) research on "The Question-Asking Behaviour of Thai Teachers":

EFL teachers did not ask questions only in English. Sometimes they asked questions in Thai or mixed Thai with English.

(Ek-Un:1990:69)

In fact, the native language is recom - mended for use in class by some researchers and educators. Wilkins (1985), for instance, recommended the use of the mother tongue for quick and informal checks on comprehension in order to avoid the problem of ambiguity in instructions and explanations.

Finocchiaro and Bonomo (1973:19) supported the judicious use of the mother tongue to aid comprehension since "There is nothing as frustrating to students as feeling completely left out of an entire lesson because they did not understand something at the beginning."

Furthermore, the language of tests can facilitate students' comprehension and expression of ideas. According to Shohamy (1984) test questions in the native language reduced students' anxiety, especially those who have a low proficiency level. The language also lessened the 'foreignness' of the distractors and possibly promoted understanding of the questions.

An observation conducted in several Arab and non-Arab countries, where the mother tongue was allowed to be used in ESL/EFL classes, revealed that :

The majority of students (81%) feel they are happy when they are allowed to use the mother tongue, especially when they know a given point but are unable to express it in English.

(Kharma & Hajjaj :1989:223)

Thus, in the Thai context, it seemed worthwhile to explore the effects and usefulness of the native language, Thai, in reading tests in order to assess students' reading ability.

Method

Subjects for this study were 82 first-year students of the Faculty of Science, Salaya campus, Mahidol University, during the second semester of the academic year 1990. They were science students from various fields such as nursing science, radiology, physical therapy and health science. These students were classified into three categories: high-band score, moderate-band score and low-band score groups according to their scores gained from a standardized placement test developed by the Reading Laboratory of the Science Research Association (SRA) by means of a chi-square test. They were then selected to form two groups of identical proficiency.

Two passages from the SRA Reading Laboratory IIIa, color blue numbers 2 and 13, were used as tests. Blue was selected because it was found to be appropriate for the students' level and the reading passages numbers 2 and 13 were chosen because they had questions which corresponded to the categories set up for this study.

As suggested by Davies and Widdowson (1979) and Harris and Smith (1980), the question types used were direct reference, inference, supposition and application.

Since the study mainly examined the effects of languages on test results, the selected test items were translated directly into Thai by the researcher and checked by three experienced teachers of the Department of Foreign Languages, Faculty of Science, Mahidol University.

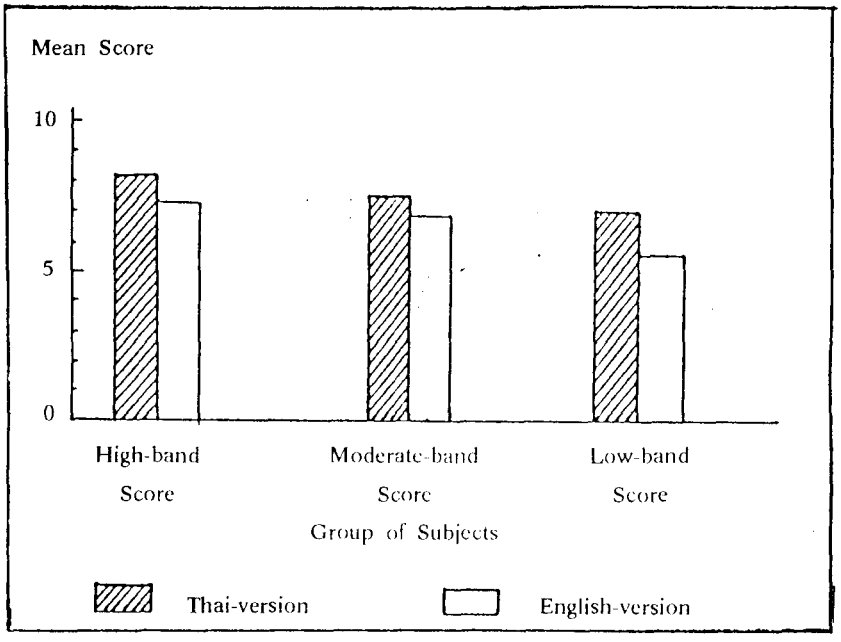
Thus, the tool for this study was two parallel sets of test items, which were different in that the question and answer items in one set were in English, while those in the other were in Thai. Each set had eight multiple-choice questions and two open-ended questions. The tests were then scored and analyzed by using various statistical devices.

Findings and Discussion

In terms of effects of the language of tests on test results, a significant difference between the mean score gained from the Thai version and the English version was found (see graph 1). This reveals that

different languages of test of the same content eliciting the same information from the same EFL reading comprehension affects test results, particularly among low-band score students.

GRAPH 1
A COMPARISON BETWEEN THE RESULTS OF
HIGH-BAND, MODERATE-BAND AND LOW-BAND SCORE SUBJECTS



This may be due to the fact that native language questions reduced fear in students, who are in the early stages of learning English at university and are not confident in expressing their ideas in the target language. According to Shohamy (1984), clues from the native language made the task more natural for the second-language learners. She elaborated that while the students processed second language texts, they tended to utilize known elements from their native language rather than unknown elements from the second language. Her idea is confirmed by the results of the item analysis of the multiple-choice questions of this study which indicates that the distractors function differently in the two languages. Students also found the vocabulary in the questions and in the distractors difficult.

In terms of the effect of the language of tests on types of questions, it was found that two types of questions were affected: multiple-choice application and open-ended inference questions. The resulting t-values indicate a significant difference between the mean score gained from the Thai version and from the English version in multiple-choice application questions among moderate-band score (t=2.0404) and low-band score subjects (t=1.8520), and in open-ended inference questions among low-band score subjects (t=1.7739). Additionally, The mean score gained from the Thai version was found to be higher on all types of questions (see Appendix).

As for the application question, it requires not only information from inside and outside the reading text, but also the students' ability to apply this to real-life experience. Thus when questions were given in Thai, the students achieved better results because they found it easier to apply knowledge in their native language. In particular, low-band score subjects did not find any difficulty when they were allowed to answer in Thai.

Shohamy (1984) pointed out that multiple-choice items were easier than open-ended

items which required both comprehension and production, while multiple-choice items required comprehension and selection. Zupnik (1985) also supported this view, when she found that on open-ended questions wherein the reader was asked to quote his foreign language response directly from the text, his following L1 answer showed a lower level of comprehension of the text. The use of L1 response then seemed to be a more valid method for a sessing 'deep' reading comprehension than the quote type method.

Thus, the native language would appear to play a vital role in accurately measuring students reading comprehension in various types of questions.

Furthermore, in the researchers' present study it was found that the two sets of scores both within the Thai version and the English version were positively correlated, though the correlation values were relatively low (0.1211 and 0.3709 respectively). Considering the performance of each type of group, it was evident that in the English version the scores gained by high-band subjects from the two test formats were highly correlated (0.7439). However, in the Thai version there was a negative correlation (-0.3943). This means that this group might obtain high scores from one test format in Thai, but low scores from the other format in Thai or vice versa (see table 1).

Table 1

A COMPARISON BETWEEN THE CORRELATION COEFFICIENT OF TEST FORMATS IN THAI - VERSION AND ENGLISH - VERSION TESTS

Groups of subjects	Thai-version Test Correlation Coefficient Between Test Formats	English-version Test Correlation Coefficient between Test Formats
High-band Score	-0.3943	0.7439
Moderate - band Score	0.1861	0.2723
Low-band Score	0.2466	0.0442

Moreover, a correlation between test formats in the Thai version and English version produced the following results (see table 2).

Table 2

A CORRELATION COEFFICIENT VALUE BETWEEN TEST FORMATS IN THAI - VERSION AND ENGLISH - VERSION TESTS: COMPARISON AMONG DIFFERENT GROUPS OF SUBJECTS

Test Formats	Groups of Subjects	No. of Items	Correlation Coefficient Value between Thai-version and English-version Tests
Multiple-Choice	Hight-band Score	8	0.5499
	Moderate - band Score		0.2829
	Low-band Score		-0.5031
Open-ended	High-band Score	2	-0.1901
	Moderate - band Score		0.2646
	Low-band Score		0.3393

The scores gained from multiple-choice items indicates a negative correlation between the Thai version and English version tests by low-band score subjects. Also those obtained from open-ended items by high-band score subjects are negatively correlated. This shows that when high-band score and moderate-band score subjects worked on multiple-choice items either in Thai or in English they might gain high or low scores from one test version in relation to the scores gained from the other test version. As for low-band score subjects, they may gain high scores from one test version but low scores from the other or vice versa. This can be explained by the fact that the low-band score subjects gained significantly higher scores from the Thai version than from the English one. It is possible that the language of the test items is a facilitator rather than a hindrance for comprehension, since they were able to perform better when the multiple-choice items were given in the native language (see Appendix). Regarding the high-band score subjects, when they did the open-ended test, they gained relatively higher scores, almost significant, from the Thai-version. This is because when they were permitted to write answers in their native language, they could perform well, but when they were asked to do it in English, their scores dropped.

Implications for Teaching and Learning

One of the important findings in this study confirms that the language used for testing reading comprehension affects test results. When assessing reading comprehension, teachers ought to consider using the native language, especially when teaching low-proficiency students in order to facilitate their comprehension and take away their anxiety of a foreign language. Students should not be expected to answer a test item in the target language, if it is beyond their level of language proficiency.

The language used in reading tests should also be considered in relation to types of questions, especially in the multiple-choice application question and open-ended inference types, where students have to go beyond the passage to produce an answer. The language of the test should not become an additional burden in understanding the reading passage.

With regard to the language used by teachers in the classroom, it is recommended that teachers use Thai for checking actual comprehension. Teachers then should encourage and guide students to gradually transfer their expression from Thai into English until they come to a stage where they can express their ideas in simple English.

As for test developers, when writing a test they should be aware of the fact that different languages used to present the same test item affect test results. Consequently, test items should correspond to the aim of the test, either to test comprehension or to test students' proficiency of the target language. If the target language is used for presenting test items, then the amount of language presented should not be beyond students' ability . According to Henning (1982), one of the common testing mistakes EFL teachers should avoid is the use of a wrong medium. He stated that many reading comprehension questions require accurate written response to show comprehension of the passage. However, research has revealed that such tests were invalid because they measured something other than what they were intended to measure. Thus, it was essential that the response medium represented the skill being tested.

To conclude, the native language in the classroom plays an important role in teaching the reading skill and testing reading comprehension. The level of students, type of questions and test formats should be considered carefully. It might also be useful to find out if this also applies to other language skills as well.

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APPENDIX

A COMPARISON BETWEEN EFFECTS OF THE LANGUAGE OF TESTS ON TYPES OF QUESTIONS AMONG HIGH-BAND SCORE, MODERATE-BAND SCORE AND LOW-BAND SCORE SUBJECTS

Groups of Subjects	Types of Questions	Test	No.	Mean	SD	Degree of Freedom	T Value	One-tail Prob.
High-band Score	Direct reference	Thai-version	12	1.9167	0.2887	22	0.0000	>0.05
		English-version	12	1.9167	0.2887			
	Inference	Thai-version	12	1.7500	0.4523	22	0.9444	>0.05
		English-version	12	1.5000	0.7977			
	Supposition	Thai-version	12	1.8333	0.3892	22	0.9199	>0.05
		English-version	12	1.6667	0.4924			
	Application	Thai-version	12	1.6667	0.4924	22	0.6916	>0.05
		English-version	12	1.5000	0.6742			
	Inference (Open-ended)	Thai-version	12	1.4167	0.7930	22	1.4489	>0.05
		English-version	12	1.0000	0.6030			
	Direct reference	Thai-version	14	1.8571	0.3631	26	0.0000	>0.05
		English-version	14	1.8571	0.3631			
	Inference	Thai-version	14	1.5000	0.6504	26	0.2915	>0.05
		English-version	14	1.4286	0.6462			
Moderate-band Score	Supposition	Thai-version	14	1.5714	0.6462	26	-0.6009	>0.05
		English-version	14	1.7143	0.6112			
	Application	Thai-version	14	1.6429	0.4972	26	2.0404	>0.05
		English-version	14	1.1429	0.7703			
	Inference (open-ended)	Thai-version	14	1.1429	0.6630	26	0.4862	>0.05
		English-version	14	1.0000	0.8711			

Groups of Subjects	Types of Questions	Test	No.	Mean	SD	Degree of Freedom	T Value	One-tail Prob.
Low-band Score	Direct reference	Thai-version	15	2.0000	0.0000	28	1.4676	>0.05
		English-version	15	1.8667	0.3519			
	Inference	Tbai-version	15	1.2667	0.7988	28	0.8881	>0.05
		English-version	15	1.0000	0.8452			
	Supposition	Thai-version	15	1.6667	0.7237	28	0.2686	>0.05
		English-version	15	1.6000	0.6325			
	Application	Thai-version	15	1.2667	0.5936	28	1.8520	<0.05
		English-version	15	0.8000	0.7746			
	Inference (open-ended)	Thai-version	15	1.0667	0.7988	28	1.7739	<0.05
		English-version	15	0.6000	0.6325			