

Ensuring Validity of Practical English Certification Test of Local Office of Education in Korea

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This study is aimed at ensuring the validity of the Practical English Certification Test (PECT) of the Chung-nam Office of Education (COE) in Korea. Motivated by the demand for a developing localized English test to empower English learning in public education, the COE conducted the PECT for 38,544 students of elementary, middle and high schools in Chung-nam Province. The present study was designed to conduct the content and construct the validity of the PECT. Content validity was investigated by a critical review of researchers and educators in English education and proposed that the PECT is fulfilled with clarity in wording, relevance of items, formatting of items and clarity of the instructions. Likewise, in order to ensure the construct validity of the PECT, the present study sampled 148 students (i.e., 52 elementary, 44 middle and 57 high school students) from a total of 38,544 PECT takers and encouraged them to take the standardized English tests (i.e., PELT for elementary level and *TOEIC*® for secondary level). The findings reported that the PECT is substitutable for the standardized tests, PELT and *TOEIC*®. In short, the study suggests that conducting the localized English test, the PECT, seems worth trying in order to measure learners' achievement accomplished by English learning in public education.

Key Words: content validity, construct validity, standardized test

1 Introduction

Motivated by the demand for encouraging public English education, the Chung-nam Office of Education (COE) developed a localized English test called the Practical English Certification Test (PECT). According to Chung (2013), the PECT appeals to the public with its unique feature of questions being derived from English textbooks, which is the staple medium of English instruction in public schools. Although several standardized English tests exist, in a sense, it is regarded that those tests are inadequate to measure

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learners' achievement of English learning in the public education system (Jung, 2013). While most schools around the world commonly use standardized tests to assess the level of students' language use, there are still other types of tests administrated by departments within schools to measure how to improve language skills in each school (Akiyama, 2004). In the case of National English Ability Test (NEAT) in Korea, it is regarded as a type of test developed by the Korean Ministry of Education to assess and consider English ability only for Korean learners. According to the elucidation of NEAT (refer to <http://www.neat.re.kr>), one goal is to measure the achievement of English learning from each level of schools in Korea and it was designed to empower English learning through public education. In this light, the COE was encouraged to develop a localized English test for students in Chung-nam Province and developed the test with a group of English education professionals. In the process of developing the new test, the process of confirming the test's validity is crucial, as its validity addresses whether or not a test truly measures what it was created to measure. According to Bachman (1990) and Bachman and Palmer (1996), test validity is defined as the meaningfulness and appropriateness of interpretations that is made on the basis of test scores. Alderson, Clapham and Wall (1995) and Choi and Kim (2012) mentioned that test validity consists of content validity reviewed by professional experts in the area of testing and face validity as described by test takers. However, there is some criticism about the content and face validity since they reflect the subjective point of view of reviewers. Thus the confirmation of construct validity is requested to compensate the validity with supporting evidence and it is mostly investigated by a statistical analysis such as correlation analysis (Lee, 2007; 2012). In this study, regarding the elucidation of the PECT and the importance of validity of the test, the study framed the research questions as follows.

1) How is the quality of the Practical English Certification Test (PECT) of the COE for elementary, middle and high school students in Chung-nam Province?

2) What is the evidence related to the use of the Practical English Certification Test (PECT) of the COE as a standardized test?

2 Resources

2.1 Practical English Certification Test (PECT)

According to the elucidation of the PECT on the website of the COE and Chung (2013), the PECT is aimed to measure four English skills—listening, speaking (i.e., indirect way), reading and writing and pursues to resolve the imbalance in listening and reading oriented English tests that are commonly used to measure English ability in Korea (Jung, 2013). The COE announced that the PECT and the annual English Textbook Contest are their leading

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English programs, since the English Textbook Contest has a reputation that its instructional objective is to encourage students to memorize English textbook content, and expects English learners to pay more attention to public education. Along with the success of the English textbook contest, the COE developed the PECT, which is aimed at containing topics and vocabulary from English textbooks, which are crucial instructional material in the English classrooms of elementary, middle and high schools in Chung-nam Province.

The COE administrates the PECT for students in Chung-nam Province and provides three versions of the PECT tailored for elementary, middle and high school students. Each version of the test consists of two language parts: vocabulary-listening and reading-writing and two question types: sentence completion and multiple-choice type. Depending on the version of the test, the test time ranges from 40 to 50 minutes and the total number of questions ranges from 20 to 40. Table 1 shows more details of the PECT.

Table 1. Details of PECT

School	Part	Period	Time	Num. of Question	Type of Question
Elementary	Vocabulary-Listening	1st	10:00~10:40 (40min)	20	Completion & Multiple-choice
	Reading-Writing	2nd	11:00~11:40 (40min)	20	Completion & Multiple-choice
Middle	Vocabulary-Listening	1st	10:00~10:45 (45min)	30	Completion & Multiple-choice
	Reading-Writing	2nd	11:00~11:45 (45min)	30	Completion & Multiple-choice
High	Vocabulary-Listening	1st	10:00~10:50 (50min)	40	Completion & Multiple-choice
	Reading-Writing	2nd	11:00~11:50 (50min)	40	Completion & Multiple-choice

The COE promulgated the rubrics of the PECT to measure student's performance on the test and are described as follows.

- A score of 90 or above will get students Level 1
- A score of 75 or above will get students Level 2
- A score of 60 or above will get students Level 3
(i.e. the highest score is 100)

2.2 Standardized tests

To confirm the construct validity of the PECT, the study conducted standardized tests for a random sample of students. The standardized tests used in this study are the *TOEIC*® (Test of English for International Communication) by ETS (Educational Testing Service) and the PELT (Practical English Level Test) by the KFLEI (Korea Foreign Language Evaluation Institute) According to the official *TOEIC*® website (<https://www.ets.org/ko/toeic>), the *TOEIC*® is aimed to measure the business English competence of non-native speakers of English. The test consists of 200 questions, which are designed to measure listening and reading comprehension. The PELT's goal is to measure learners' English literacy in vocational area and consists of 70 questions, which are designed to measure listening, reading, and writing competence (refer to <http://www.pelt.or.kr/>).

3 Research methods

3.1 Participants

To confirm the content validity of the PECT, seven English education professionals were recruited, some of whom were professors in an English department and some of whom were English teachers of elementary, middle and high schools in Chung-nam Province. Table 2 illustrates these demographic variables of professionals.

Table 2. Demographic Variables of Professionals

Participants*	Affiliation	Education (Degree in Major)	Teaching Experience(Years)
1	K University	Ph. D. in English Education	25
2	S University	Ph. D. in English Education	10
3	Y Elementary School	BA in elementary education	15
4	B Elementary School	BA in elementary education	10
5	B Middle School	BA in English education	25
6	W Middle School	ME in English education	10
7	S High school	MA in TESOL	8

Participants: To secure anonymity, a numbering code was used.

To measure the construct validity of the PECT, a total of 38,544 students (i.e., 30,387 elementary, 6,120 middle school and 2,057 high school students) were asked to take the PECT of the COE and received English certification of level 1, 2 or 3, respectively. Out of 38,544 test takers, the present study sampled 148 students (i.e., 52 elementary, 44 middle school and 57 high school students) and asked them to take the standardized English test (i.e., PELT for elementary and *TOEIC*® for secondary school students respectively). The participants were randomly sampled, so they consist of one heterogeneous group. Table 3 shows the PECT levels of the participants in this study.

Table 3. Levels of PECT of Participants

School	Level*	Results of PECT (total=148)
Elementary	1	48
	2	4
	3	0
	Sub.	52
Middle	1	13
	2	16
	3	15
	Sub.	44
High	1	17
	2	20
	3	20
	Sub.	57

*Level: 1 is the highest score.

3.2 Instruments

To confirm the first research question, the study conducted the content validity test by the seven English education professionals, with the average inter-rater reliability reported as significant (Cronbach's $\alpha=.89$). It is assumed that they evaluated the content of PECT on the basis of their experience and knowledge of teaching English. In this study, the collected reviews were analyzed on the basis of the criteria of content validity as proposed by Fowler (2002) and they are as follows. (1) Clarity in wording; (2) Relevance of items; (3) Use of standard English; (4) Absence of biased words and phrases; (5) Formatting of items; (6) Clarity of instructions. For the second research question, the study conducted a comparison study between the PECT and two other standardized tests, the *TOEIC*® and the PELT, in order to confirm the construct validity of the PECT. The collected data were reviewed by correlation analysis, ANOVA and regression analysis. The statistical analysis was made via SPSS ver. 17.0

3.3 Gist of validation process

In this study, the validity of the PECT was ensured by four stages: (1) COE administrated PECT to students in Chung-nam Province and assigned the PECT level from 1 to 3 for every test taker; (2) The content validity was assessed by the seven English education professionals; (3) The construct validity was assessed for 148 students, who were randomly sampled from the total of 38,544 PECT takers; (4) Collected data were analyzed and discussed in this study.

4 Findings and discussion

4.1 Results of content validity test

To confirm content validity of PECT, seven English education professionals (i.e., 2 professors and 5 teachers) were asked to evaluate the test. Their reviews were analyzed on the basis of the content validity criteria as suggested by Fowler (2002) and the findings are summarized as follows. First, the PECT received positive feedback on 'clarity in wording', 'relevance of the items', 'formatting of items' and 'clarity of instructions'. Second, comments on 'use of Standard English' and 'absence of biased words and phrases' were made differently depending on the background of reviewers. The professors evaluated that the PECT is dominated by American English, while teachers of elementary and secondary school assessed that the PECT uses English appropriately. Third, the English education professionals indicated that the PECT consists of appropriate content to measure learners' practical English skills because it includes topics and vocabulary from textbooks mediated in elementary, middle and high schools. Fourth, English teachers in elementary, middle and high schools were asked to review the PECT on the basis of curricular validity and they reported that the PECT has a high relevance to the goals and objectives of the school curriculum and Korean national curriculum.

4.2 Results of construct validity test

4.2.1 PECT for elementary students

To confirm the construct validity of the PECT for elementary students, a comparison was conducted between the PECT and the PELT (i.e., the standardized test for measuring practical English skills for the elementary level of students). The results of descriptive statistics of the PECT and the PELT are summarized in Table 4.

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Table 4. The Results of Descriptive Statistics of PECT and PELT

	N	Mean	SD
PECT	50	1.0660	.23990
PECT part 1	50	22.7800	25.88064
PECT part 2	50	18.9400	1.40567
PELT	50	156.2000	26.37640
PELT part 1	50	91.6400	12.79471
PELT part 2	50	64.5600	16.16264

Note: PECT part 1: Vocabulary + Listening/ part 2: Reading + Writing
PELT part 1: Listening/ part 2: reading

The statistical comparison of the two tests was conducted by correlation analysis and the result shows the significant correlation between the two tests ($R=-.383$, $P<.01$). Table 5 shows the results of a correlation analysis of the PECT and the PELT.

Table 5. The Results of Correlation Analysis of PECT and PELT

		PECT	PELT
PECT	Pearson Correlation	1	-.383**
	Sig. (2-tailed)		.006
	N	50	50
PELT	Pearson Correlation	-.383**	1
	Sig. (2-tailed)	.006	
	N	50	50

In addition, the study proposed that further analysis to investigate the effect of the PECT on the result of the PELT, thus a regression analysis was conducted. As a result, the dependent variable, the PECT, shows a significant effect on the results of the PELT ($T=-2.868$, $P<.01$). Table 6 shows the results of regression analysis of the PECT and the PELT.

Table 6. The Results of Regression Analysis of PECT and PELT

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(constant)	1.603	.192		8.347	.000
	PELT	-.003	.001	-.383	-2.868	.006

a. Dependent Variable: PECT

4.2 PECT for secondary students

To confirm the construct validity of the PECT with middle and high school students, the comparison between the PECT and the *TOEIC*® was conducted

by ANOVA. The statistical findings suggest a significant correlation ($F=20.540$, $P<.01$) between the PECT and the *TOEIC*®. Table 7 shows the results of ANOVA.

Table 7. The Results of ANOVA of PECT and *TOEIC*®

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	337138.482	1	337138.482	20.540	.000(a)
	Residual	1608560518.	98	16413.883		
	<i>TOEIC</i> ®	1945699000	99			

a. Predictors: (Constant), PECT

b. Dependent Variable: *TOEIC*®

The investigation by regression analysis was also made to examine the effect of the PECT on the result of the *TOEIC*® and the study found a significant effect of the PECT on the *TOEIC*® ($T=4.532$, $P<.01$). Table 8 shows more details.

Table 8. The Results of Regression Analysis of PECT and Mock *TOEIC*®

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	617.120	35.906		17.187	.000
	<i>TOEIC</i> ®	-73.439	16.204	-.416	-4.532	.000

a. dependent variable: PECT

4.3 Discussion

The present study conducted a validity test of the PECT of the COE and found that the PECT is substitutable for a standardized test for measuring English competence of the learners of Chung-nam Province. Further discussion is as follows.

First, the content validity of the PECT was confirmed by the assessment of the seven English education professionals and revealed that the PECT contains clarity in wording, relevance of items, formatting of items and clarity of the instructions, which are suggested in the validity criteria of Fowler (2002). Significantly, different opinions were recognized in the reviews, which are related to the use of Standard English and the absence of biased words and phrases. It is assumed that college professors prefer World Englishes to American English for language use, while school teachers

respect American English as the only English to be targeted during English instruction. This is supported by the previous research about English textbook in EFL settings (Lee, 2009; Matsuda, 2002). English textbooks in Korea are filled with US culture and language, while English textbooks in Japan show a strong inner-circle orientation in their choice of linguistic samples. Since PECT is aimed at complying topics and vocabulary with English textbooks, the dominant culture and language of the textbooks may reflect the test materials. Since English textbooks are regarded as crucial teaching materials in most EFL classrooms (Sercu, 2000), the featured culture and language of the English textbook was an influence in the developing language preference of both the teachers and students (Chang, 2011). Therefore it is interpretable that English teachers may show a strong tie to American English, which dominates the English textbooks throughout Korea (Chang, 2007, 2013; Huh, 2013; Lee, 2007, 2012; Ok, 2014). Thus, whether teachers use Standard English or World Englishes is less persuasive than college professors who tend to use World Englishes more in ELT (Byram, 1997; Chang, 2012, 2013; Lee, 2007, 2012; Mukminatien, 2012).

Second, the present study proposed that PECT is suitable as a standardized English test to assess the English competence of learners in Korea. The questions of the PECT were created by referring to the topics and vocabulary of the English textbooks, thus they are eligible to measure the English achievement from learning in public education. The previous study by Mbali and Douglas (2012) insisted that the goal of language test is to measure English learning from schools and they used the localized English oral test for 6th graders of a South African school. O'Malley and Valdez (1996) defined authentic assessment as "the multiple forms of assessment that reflect student learning, achievement, motivation and attitudes on instructionally-relevant classroom activity" (p.4). Accordingly, if the localized test is significantly correlated with the standardized tests, it is seen as a positive signal to alternate the current standardized test with the localized test. According to Brown (1996) and Brown and Abeywickrama (2010), achievement test have as their primary goal determining the acquisition of course objectives at the end of a period of instruction, thus the devotion for developing the localized English competence test is seen to be worth a try for English learners in Korea.

5 Conclusion

The present study is designed to ensure the validity of the language test for EFL learners of a local region in Korea. It originated from the national educational policy to empower English learning in public education, thus a transformation of the motivation of students learning English in public education was requested. If students are assessed by what they have learned in schools, they will exert themselves to learn English according to their

English instruction in schools. Thus the test will meet the goals of Korean educational policy, which is to provide an educational balance to all students. For this reason, the COE and other education offices in Korea are encouraged to develop localized English tests. As a result, CEO developed the PECT and the present study found that the PECT is substitutable for the standardized test; however, the present study has a limitation to conclude that the PECT is reliable as an alternative standardized test in general, because the PECT was conducted only for students in Chungnam province and omitted to conduct face validity conducted by test takers. For further study, it is strongly suggested that future research design is formed to investigate on the aspects of the test takers.

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