

Does TOEIC as a University Exit Test Ensure Higher Employability in Taiwan?

Yi-Ching Pan¹, Yo In'nami²

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Abstract

With the goal of enhancing the competitiveness of students in the workplace, nearly two-thirds of technical universities in Taiwan have adopted a variety of standardized English proficiency tests as exit requirements, including the widespread use of TOEIC. However, employers still name “insufficient English proficiency” as one of the primary employability gaps to be bridged by graduates (104 Job Bank, 2008, 2009). This study examines whether the use of TOEIC as an exit requirement for 4-year universities in Taiwan can be justified as ensuring higher rates of employability. It explores whether (1) preparing for TOEIC can enhance the level of student English proficiency necessary for the workplace, (2) TOEIC scores are positively related to job recruitment, and (3) the use of TOEIC as an exit requirement encourages courses to prepare students for both the test and the needs of the workplace. The official TOEIC test scores of 555 technical university students and questionnaire responses from 116 employed alumni, 100 employers, and 399 technical university students were analyzed. The findings indicate that the test use consequences could be interpreted both positively and negatively. The students were able to reach the cutoff scores, with mean scores of around 150 points higher, and demonstrated the ability to perform the English skills required for the workplace according to employed alumni and employers. Hence, the standardized exit scores were positively related to job recruitment. On the other hand, the exit requirement cutoff scores may not motivate high proficiency students, who are not sufficiently challenged. In addition, the material instructed in class focuses on test preparation and four-skills’ practice, without adequately engaging the students in activities to help them acquire skills such as oral communication that are often used at work.

Keywords: *consequence of test use, exit tests, test impact, TOEIC*

1. Introduction

Tests exert consequences not only on the classroom but also on the educational context and society as a whole. Over the course of the past three decades, the investigation of the consequences of test use, along with the justification for that use, have therefore come to be

¹Department of Applied English, National Pingtung University, Email: yichingpan@yahoo.com.tw
(Corresponding author)

²Division of English Language Education, Faculty of Science and Engineering, Chuo University, Email: innami@tamacc.chuo-u.ac.jp

regarded as vital steps in validating a test (e.g., Bachman, 2005; Kane, 2006; McNamara & Roever, 2006; Messick, 1989). An increasing amount of attention has been devoted to the effects of tests in recent years, as evidenced by the number of washback studies conducted within classroom settings (e.g., Cheng, 2004, 2005; Green, 2007; Pan, 2014; Saville & Papp, 2009; Shohamy, Donitsa-Schmidt, & Ferman 1996; Shohamy et al., 2009; Wall, 2005). However, there has been a significant lack of research on two essential issues in the field of language testing: (1) the exploration of the impact of tests at the macro level, and (2) the exploration of the consequences of test use to connect with one aspect of test validation, such as linking test scores and score inferences to test use and the consequences of test use (Bachman, 2005). This study intends to draw a connection between validity and test use by investigating whether the use of standardized English tests as exit requirements can be justified as ensuring higher rates of employability.

To improve the English abilities of Taiwanese university students and therefore enhance their competitiveness in the workplace, the Ministry of Education (MOE) has encouraged Taiwanese higher education institutions to adopt an English graduation benchmark policy (Pan, 2010) since 2003. As of 2012, nearly 90% of tertiary institutions in Taiwan have established English certification exit requirements (Pan & Roever, 2016). Under this policy, students must choose from an array of English proficiency tests, such as the General English Proficiency Test (GEPT), Test of English for International Communication (TOEIC), and Test of English as a Foreign Language (TOEFL), and obtain a certain level/score in order to graduate. Students who fail to do so are required to take a supplementary course. Among these standardized English proficiency tests, one of the most widely adopted by colleges and universities in Taiwan is TOEIC (Pan, 2014).

This study investigates the use of exit tests at a technological university in Taiwan. At the time of writing, its most recent graduation benchmark had been established in 2008. Two-thirds of the disciplines offered at this university were business related, so the majority of its students chose to take TOEIC to meet the graduation requirements for English because its test scores indicate how well people can communicate in English with others in the global workplace (Educational Testing Service, 2016). The minimum score required for the students in the present study was 225 for TOEIC, which is reported to be equivalent to the A2 waystage on the Common European Framework of Reference for Languages (CEFR). According to the CEFR, learners with the A2 waystage have the ability to deal with simple, straightforward information and begin to express themselves in familiar contexts, such as taking part in a routine conversation on simple, predictable topics. In other words, students who meet the exit requirements are supposed to understand, communicate in, read, and write simple and routine tasks related to areas of most immediate relevance, such as personal information, shopping, local geography, employment, education, training, and social roles (The CEFR online, Council of Europe).

Whether using a standardized English test as an exit requirement fosters students of high English proficiency is a matter of empirical concern. Multiple stakeholder accounts of testing experience have been considered in the field of testing research as part of test validation (Fox, 2003; Fox & Cheng, 2015; Cheng, Andrews, & Yu, 2010). The graduating students (fourth-year

students in this study), the employed alumni, and the employers are the multiple stakeholders that will be investigated in this study in order to better understand how tests affect employability.

2. Literature Review

2.1 *Validity and Consequences of Test Use*

Validity is a central concern in any effort to develop a test. Prior to the 1980s, test validation was undertaken by examining the psychometric qualities of a given test, utilizing content, construct, and criterion-related references for validation (Chapelle, 1999). During the past three decades, the focus of validity has shifted from a wholly technical view to one that encompasses test-use perspectives. Messick (1989, 1996) stressed the importance of test use, emphasizing that validity resides in inferences or decisions made on the basis of scores, and that testing is not an isolated, value-free matter. However, Shohamy (2001) criticized Messick's unified model of construct validity, stating that it focused little on providing clear guidelines for exploring the consequences of test use.

Kane (1992, 2002, 2006) suggested an argument-based approach to validation, which consisted of an interpretive and a validity argument. The interpretive argument explicates the chain of inferences that lead from observed performances via scores and score interpretations to conclusions and decisions. The validity argument provides an evaluation of each component of the interpretive argument, either supporting or challenging it by means of critical examination and analysis of empirical data.

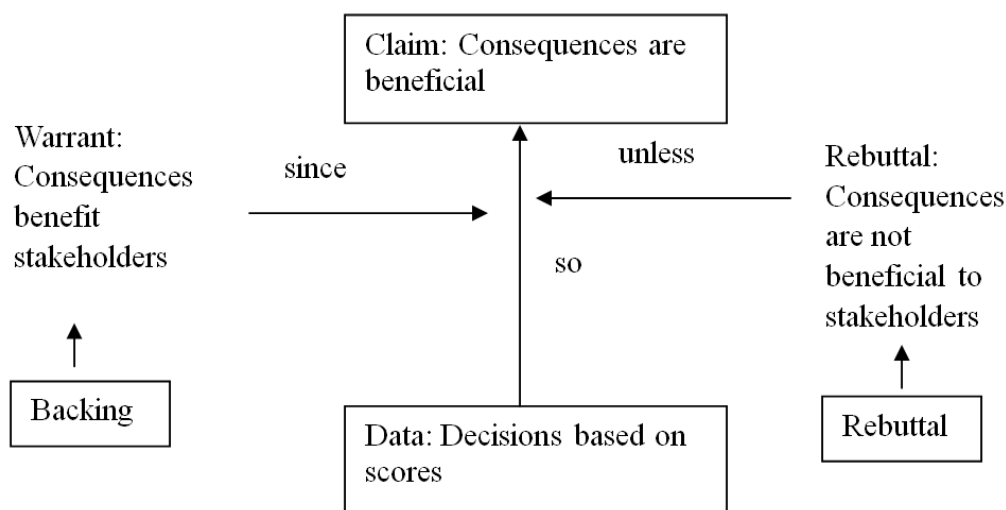
In the first step of Kane's validity argument, observations of learners' target language knowledge and ability for use are generated through test tasks. The resulting sample of responses is expressed quantitatively as an observed score, and scoring can be validated by investigating the scoring rule (e.g., a rating scale or dichotomous decisions about correct/incorrect responses). The observed score is generalized to a *universe score*, whereby it is interpreted as covering the whole universe of possible items and responses. This interpretation can be supported and validated by a reliability coefficient like Cronbach's alpha, interrater reliability, or generalizability. The universe score is then extrapolated to a *target score* across the target domain. This crucial step interprets test results as indicative of the level of L2 knowledge and ability for use and is most vulnerable to the two major threats to validity identified by Messick (1989): construct under-representation and construct-irrelevant variance. The validity argument for extrapolation relies on empirical findings, e.g., criterion measures, comparing different populations, and convergent validity evidence like the multitrait-multimethod matrix (Campbell & Fiske, 1959). Finally, and crucially for the present study, the target score is used for *decisions* about learners, such as readiness for graduation or the need for further instruction. Kane (2006) argues that decision inferences strongly depend on value assumptions. For example, an English test that serves as a university graduation requirement inherently assumes that a certain level of competence in English is an essential attribute of graduates and that their tertiary education would be incomplete without having attained this level of English. Kane (2006) follows Cronbach (1988) in arguing that the evaluation of decisions depends on the credibility of their underlying assumptions to various audiences. It is precisely this credibility that is one of the

focal interests of the present study. In other words, it is essential to explore the perceptions of the stakeholders in regard to whether the use of a standardized English test as an exit requirement can be justified on the basis of ensuring higher employability.

While Kane (2006) suggests that an argument-based approach could be based on Toulmin's (1958) argument structure, Bachman and Palmer (2010) show how this can be utilized specifically for language assessments. They propose an Assessment Use Argument (AUA), which parallels Kane's interpretive argument, accompanied by an "assessment justification," which parallels Kane's validity argument. Bachman and Palmer distinguish four levels of AUA, which broadly reflect Kane's stages. At the top level of *Consequences*, they interrogate the test with regard to its beneficence for stakeholders. Their next level of *Decisions* refers to sensitivity to societal and educational values, and the equitability of the decisions that are to be made. The following level, *Interpretations* investigates to what extent score interpretations about language ability are meaningful, impartial, generalizable, relevant, and sufficient. The lowest level, *Assessment Records*, refers to the consistency of assessment scores across different assessment tasks, aspects of the assessment procedure, and groups of test takers.

Bachman and Palmer show how Toulmin's approach can be used at each level of AUA. For example, at the top level of *Consequences*, a claim is made that the use of the test will have desirable consequences for stakeholders. This claim arises out of the decisions that have been made on the basis of the scores and receives backing if the consequences for each group of stakeholders are found to be beneficial. It is rebutted if the consequences can be shown to be harmful or at least not helpful to stakeholders. The structure of this argument is illustrated in Figure 1.

Figure 1. Bachman and Palmer's AUA.



Which consequences are to be considered depends on the specific assessment, and these consequences must be investigated for each group of stakeholders. Bachman and Palmer list several examples of backings for a claim of beneficial consequences, most importantly that of

the assessment providing evidence for beneficial washback by promoting good instructional practice. Rebuttals include findings of non-beneficial washback and detrimental consequences for stakeholders.

2.2 Empirical Studies on the Consequences of Test Use

Research investigating the consequences of test use can be categorized into two groups: 1) washback studies within the classroom and 2) impact studies on stakeholders outside the classroom. This section reviews both washback and impact studies in order to identify the research gap to be explored.

2.3 Washback studies on exit requirements for English learning and test performance.

Washback is defined as the test effects on teaching and learning at the micro (i.e., classroom) level (Alderson & Wall, 1993; Buck, 1988), while impact refers to those effects at both micro and macro levels (i.e., educational systems and society) (Bachman & Palmer, 1996; Hamp-Lyons, 1997, 2000; McNamara, 2000; Shohamy, 2001; Taylor, 2005; Wall, 1997).

An exit examination refers to a test a fourth-year student may be required to take in order to show language proficiency. While exit testing in tertiary education is a relatively under-researched area (Humphreys & Mousavi, 2010), an increasing number of studies have recently investigated the effects of exit tests on learning activities and test performance. Hong Kong was one of the first locations to initiate large-scale exit testing to address the concerns of the business community over university students' declining English proficiency (Qian, 2007). Stoneman (2006) found no significant difference in the test-preparation practices of 655 Hong Kong university students for the local university exam and the International English Language Testing System (IELTS) test. Traditional learning strategies and exam preparation methods such as reading textbooks, memorizing vocabulary and idioms, going through previous exam papers, or relying on test preparation books were prevalent among her research participants when preparing for different exit tests. In China, Xie (2013) explored how 1,003 Chinese university students prepared for the College English Test Band 4 (CET4), which was widely used as a university graduation requirement. She discovered that students could get higher scores on CET4 after 8 weeks of preparatory practices featuring narrowed content, especially drilling, than in the case of those who did not prepare at all or prepared to a much lesser extent. In Taiwan, based on 520 university students' responses to questionnaires, Tsai and Tsou (2009) reported that these students found the exit requirement policy useful but inappropriate for assessing their English learning outcomes for graduation because they did not want to take such dull, rigid, and difficult tests. In addition, the students stated that the English certification exit requirement enhanced their test-taking skills rather than their competence in English. Again, in the Taiwanese context, Pan (2014) explored the differential effects of English certification exit requirements for

different groups of learners depending on their year of study, proficiency level, and viewpoint toward the test. Based on questionnaires and test scores collected from 589 Taiwanese university students before and after the introduction of English exit tests in Taiwan, she listed four major findings: 1) test preparation did not make a significant difference in the progress of reading skills but did in the case of listening skills, 2) intermediate- and high-proficiency students appear to have benefited from the English certification exit requirements more than low-proficiency students because the latter had a lower frequency of doing both autonomous test-specific and language skill-building activities than the former, 3) exit students used school resources more often than non-exit students to study English after class, and 4) students were more motivated to prepare for the higher-status exam (the International English Language Testing System) than the lower-status test (the Graduating Students Language Proficiency Assessment). In sum, exit requirements for English seem to have improved students' scores in certain English skills. In addition, some appear to have adopted language-skill building activities because of the introduction of the exit requirements, while others have persisted with traditional test-preparation activities. Since comparatively little research has been conducted regarding the effects of washback on students' learning processes, in contrast to the significant number of studies on the effects of tests on teaching, several researchers (Watanabe, 2004; Cheng 2008; Spratt, 2005; Wall, 2000) have advocated the need to explore the impact of tests on learners, since they are directly affected by the test.

2.4 Test impact studies on stakeholders outside the classroom.

A limited number of impact studies have been conducted to explore the effects of general language tests rather than exit tests beyond educational settings. Wall and Alderson's (1993) and Wall's (2005) Sri Lanka studies discovered that students from poorer families and those in schools with fewer resources were unable to prepare well for tests, because books were too expensive or unavailable. In his review of studies on private tutoring, Bray (1999) concludes that this led not only to a financial burden on families but also to social inequalities. He explained that richer families could afford one-on-one or small group tutoring for their children, where the tutors usually came to their homes and their children consequently received more individual attention. On the other hand, children from poor families usually had to travel long distances to attend even large tutoring classes. Scott (2007) found that most parents had very little understanding of what formative tests usually entail and what the test information they received actually means, suggesting that test scores should also be informative to parents so that they are aware of their children's performance at school as well as their own role in education. Drawing on parent and student questionnaire responses, Cheng et al. (2010) found that parents' views directly influenced those of their children, including their perceptions of what they did in schools. In sum, these studies have focused on two concerns: 1) the economic burdens that tests can impose on families and 2) parents' perspectives of and involvement in tests.

2.5 The under-researched groups of stakeholders: learners, alumni, and employers

The findings in these studies have added to our understanding of the complexity of washback effects. Since one common goal of establishing the exit requirements in these countries was to enhance students' English proficiency and their competitiveness on the job market, it is essential to discover how potential employers of university graduates perceive the importance of the exit test scores and whether they actually use them in their hiring decisions. Equally important is how alumni who have stepped into the workplace perceive the relationship between students' exit test performance and their work performance. Furthermore, little is known of the perceptions of the learners—the under-researched stakeholders (Wall, 2000; Cheng, 2008) of the exit tests—on the exit-requirement policy. This study, therefore, explores the three stakeholder groups—learners, alumni, and employers—that have been little researched previously in order to better understand the impact of the exit test requirement not only within the classroom but also on society at large.

2.6 The target TOEIC test and validity issue.

The TOEIC test is a measure of English proficiency designed for nonnative speakers of English. It focuses on the English skills required to function properly in an international working environment. As people with higher TOEIC scores are expected to perform well in English-speaking contexts, TOEIC score results can be useful in screening job applicants, motivating them to sharpen their English skills, and encouraging universities to raise students' awareness of how business operates worldwide. These goals can be viewed as the intended effects of TOEIC.

During the past three decades, the focus of validity has shifted from a wholly technical view to one that encompasses test-use perspectives (Cheng, 2014). Exploring whether the use of TOEIC as an exit requirement has brought about the intended impact from the voices of these under-researched groups of stakeholders is, therefore, a validity issue.

3. Research Questions

This study investigates the use of exit tests at a technological university in Taiwan. To seek justification for the claim that TOEIC, the standardized exit test, adopted as a graduation benchmark at the recruited institute can promote higher rates of employability, three research questions were explored:

Q1: Did preparing for TOEIC enhance students' English proficiency?

Q2: To what degree was the content validity of TOEIC supported by employers' and employed alumni's opinions?

Q3: Did the TOEIC exit test adopted as a graduation benchmark at the recruited institute promote higher employability?

4. Methods

4.1 Participants

Four groups of participants were recruited for this study. The first group comprised 555 students at the technological university, who provided their TOEIC scores. As shown in Table 1, these students took the TOEIC test at three different times.

Table 1 Number of students who took TOEIC between 2011 and 2012

<i>Test date</i>	<i>1st year students</i>	<i>2nd year students</i>	<i>3rd year students</i>	<i>4th year students</i>
<i>Dec. 2011</i>	<i>3</i>	<i>19</i>	<i>118</i>	<i>29</i>
<i>May 2012</i>	<i>41</i>	<i>78</i>	<i>42</i>	<i>49</i>
<i>Dec. 2012</i>	<i>6</i>	<i>25</i>	<i>97</i>	<i>48</i>
<i>Total</i>	<i>50</i>	<i>122</i>	<i>257</i>	<i>126</i>

The second group of participants comprised 100 employers who worked in various sectors. They were among the 50,000 people in the human resources divisions of various industries to whom a questionnaire had been distributed online through the Taiwan 104 Survey system. A total of 1149 people answered the questionnaire, 100 of whom provided valid responses and were analyzed in the current study: they were senior managers in the personnel and management divisions of their organizations who had hired the alumni of the recruited technological university. Tables 2-1 and 2-2 show the types, industries, and sizes of these employers, of which 86% were local corporations, about 61% were large in size, 17% required English certificates for most of their positions, and 34% required them for just a few. Of the employers, 32% stated that English certificates were not necessary but still an advantage, while they were of no major recruitment concern to 17%. In addition, the three highest numbers of employers who filled in the questionnaires belonged to the industries of manufacturing, trading, and services, respectively, as in the case of the employed alumni.

Table 2-1 Types and sizes of employers' corporations

Type	Size
Number	Number

Local	86	1–5 employees	11
Foreign	6	6–49 employees	27
Local & Foreign	8	50–99 employees	25
		Above 200 employees	37

Table 2-2 Industries of employers' corporations

Industries										
M	T	S	B	E	R	I	G	C	Mp	O
27	11	9	10	8	8	7	5	4	4	7

L=Local corporations, F=Foreign corporations, L&F=Local and foreign corporations, M=Manufacturing, T=Trading, S=Services, B=Banking, C=Communication, G=Government, R=Retailing, E=Education, I=Insurance, Mp=Medical Profession, O=Others

A third group were 116 employed alumni of the recruited technological university. As with the 100 employees mentioned above, they were among the 1900 potential participants to whom the same questionnaire had been distributed online through the Taiwan 104 Survey system. A total of 480 people answered the questionnaire, among whom 116 provided valid responses as they had all graduated from the recruited technological university. Tables 3-1 and 3-2 show the types, industries, and sizes of the alumni's companies. Of the employed alumni, 82% currently work for local corporations, around 50% work for small corporations, and the remaining for medium-sized corporations. According to 32% of the alumni, English certificates were necessary for most positions in their companies, 41% responded that they were required for only a few, 19% said that English certificates were not required but a recruitment advantage, while merely 8% felt they were not a major recruitment consideration. In addition, manufacturing, trading, and the service industries were the three most common respective areas of employment for the alumni.

Table 3-1 Types and sizes of employed alumni's corporations

Type	Size
Number	Number

Local	95	1–5 employees	61
Foreign	13	6–49 employees	51
Local & Foreign	8	50–99 employees	2
		Above 200 employees	2

Table 3-2 Industries of employers' corporations

M	T	S	B	C	G	R	E	I	Mp	O
24	17	10	10	10	10	7	6	5	5	11

L=Local corporations, F=Foreign corporations, L&F=Local and foreign corporations, M=Manufacturing, T=Trading, S=Services, B=Banking, C=Communication, G=Government, R=Retailing, E=Education, I=Insurance, Mp=Medical Profession, O=Others

The fourth group of participants comprised 399 Taiwanese fourth-year students from the same technical university, of which 105 were males and 294 females. Most of these participants ($n=349$) had taken either the GEPT test or the TOEIC test, and nearly 80% of them had passed the English certification exit requirements. Around 40% of them passed the GEPT elementary test and 60% of them reached 225 or above in the TOEIC test. The fourth group comprising fourth-year students filled in the questionnaires while the first group of students (first- to fourth-year students) provided their TOEIC scores. Because the questionnaires were anonymous, a certain number of fourth-year students may have both provided their scores and filled in the questionnaires.

4.2 Instruments

The two questionnaires for the three major groups of participants (the fourth-year students, employed alumni, and employers) and the TOEIC scores were the key instruments employed in this study.

The first questionnaire was designed to ask employed alumni and employers which English skills were necessary for the workplace in order to determine whether the scores and levels of proficiency required by the English certification tests corresponded to these. This questionnaire had 19 items (see Appendix A). The second questionnaire was designed to ask the fourth-year students what level of English was necessary for the workplace and for the English certification tests for which they received instruction in class in order to determine whether English certification exit requirements encouraged the establishment of courses that both prepared them for the test preparation and addressed the needs of the workplace. This

questionnaire had 17 items (see Appendix B). Both questionnaires used a 5-point Likert scale: 1 (Never), 2 (Rarely), 3 (Sometimes), 4 (Usually), and 5 (Always).

TOEIC scores were collected in 2011 and 2012 to explore whether the English certification exit requirements enhanced students' English proficiency and whether students' scores met the English needs of the workplace.

4.3 Data collection procedure

A student questionnaire was distributed in person through the researcher's network to the fourth-year students of one technological university in southern Taiwan, and those who completed the questionnaires were rewarded with a gift of appreciation. Because of the difficulties in finding employed alumni and employers, the questionnaires for these two groups were distributed online through the 104 Survey in Taiwan, which chose potential participants from its database.

TOEIC scores were collected between 2011 and 2012 with the assistance of the recruited institute. The official TOEIC tests have been administered at the recruited institute twice a year since December 2011.

4.4 Data analysis

SPSS 12.0 was utilized to analyze the questionnaire data and test scores. Descriptive statistics were employed to calculate the frequency distributions, means, and standard deviations for the questionnaire items and test scores. Inferential statistics were used to check for statistically significant differences with alpha set at .05 for the differences between reading and listening scores among the four different years of students (first- through fourth-year technical university students).

5. Results

This section presents the findings in terms of the three research questions. Each of these is considered in light of whether the use of TOEIC as exit requirements can be justified as ensuring higher rates of employability.

5.1 Did Preparing for TOEIC Enhance Students' English Proficiency?

To answer this question, the TOEIC scores of 555 students from the recruited technological university were analyzed in order to investigate whether (1) students met the cutoff scores/levels required by the English certification exit tests, and (2) their scores improved as they advanced to higher grade levels.

Table 4 shows that the mean score for the three tests between 2011 and 2012 was 368, which was around 150 points higher than the cutoff score stipulated by the exit requirements. Table 4 also shows a breakdown of the mean scores for the reading and listening sections for each of the three tests.

Table 4 The breakdown of 555 students' TOEIC mean scores between 2011 and 2012

<i>Test date</i>	<i>Listening</i>	<i>Reading</i>	<i>Total</i>
<i>Dec. 2011 (n=169)</i>	<i>199.02</i>	<i>163.93</i>	<i>362.96</i>
<i>May 2012 (n=210)</i>	<i>204.48</i>	<i>164.95</i>	<i>369.43</i>
<i>Dec. 2012 (n=176)</i>	<i>203.30</i>	<i>168.81</i>	<i>372.10</i>
<i>Mean scores (n=555)</i>	<i>202.44</i>	<i>165.86</i>	<i>368.50</i>

There was a significant difference in the TOEIC reading scores, listening scores, and total scores among the 4 years of students, as shown in Tables 5 and 6. According to Table 7, the first and fourth years of students outperformed those in their second and third years in terms of reading, listening, and total scores, and the differences were statistically significant.

Table 5 The breakdown of 555 students' TOEIC mean scores by year of study

	<i>First year (n=50)</i>	<i>Second year (n=122)</i>	<i>Third year (n=257)</i>	<i>Fourth year (n=126)</i>	<i>Mean scores</i>
<i>Listening</i>	<i>230.20</i>	<i>192.70</i>	<i>187.32</i>	<i>230.67</i>	<i>202.44</i>
<i>Reading</i>	<i>197.90</i>	<i>157.34</i>	<i>152.84</i>	<i>187.98</i>	<i>165.86</i>
<i>Total scores</i>	<i>428.10</i>	<i>350.04</i>	<i>340.66</i>	<i>418.65</i>	<i>368.50</i>

Table 6 Significant differences in TOEIC scores across the 4 years of technical university students

<i>Language skills</i>	<i>Df</i>	<i>F</i>	<i>p(Sig.)</i>
<i>Listening scores</i>	<i>(3,551)</i>	<i>20.657</i>	<i>.000</i>

Reading scores	(3,551)	19.160	.000
Total scores	(3,551)	23.406	.000

Table 7 *Tukey post hoc test of differences in the TOEIC scores across the 4 years of technical university students*

TOEIC test	(I) Years	(J) Years	Mean (I-J) differences	Standard error	<i>p</i> (Sig.)
Listening	1 st	2 nd	37.495	9.669	.001
	1 st	3 rd	42.379	8.900	.000
	1 st	4 th	-.475	9.624	1.00
	4 th	2 nd	37.970	7.314	.000
	4 th	3 rd	42.854	6.262	.000
Reading	1 st	2 nd	40.564	9.007	.000
	1 st	3 rd	45.060	8.291	.000
	1 st	4 th	9.924	8.965	.685
	4 th	2 nd	30.640	6.813	.000
	4 th	3 rd	35.136	5.834	.000
Total scores	1 st	2 nd	78.059	17.183	.000
	1 st	3 rd	87.439	15.816	.000
	1 st	4 th	9.449	17.103	.946
	4 th	2 nd	68.610	12.997	.000
	4 th	3 rd	77.989	11.129	.000

5.2 To What Degree Was the Content Validity of TOEIC Supported by Employers' and Employed Alumni's Opinions?

To answer this question, 100 employers and 116 employed alumni, as shown in Table 8, were asked to answer the 19-item questionnaires to investigate if the various English skills used in the workplace corresponded to the standardized test scores of the students. As Table 8 shows, the

frequency of various English skills used at work can be considered “medium use” as the means ranged from 3.52 to 2.40. The most frequently used skills at work, according to both employers and employed alumni, were basic skills such as reading letters/documents (reading skills), writing emails/filling out various forms (writing skills), and telephone/face-to-face communication (oral skills). Advanced skills related to work such as writing specialized reports, writing promotional documents for products, delivering speeches, making presentations, and attending seminars/meetings/exhibitions were rarely used in the workplace.

As shown in Table 4, the average student score was around 200 for listening and around 165 for reading. Based on the TOEIC score descriptors (Educational Testing Service, 2008), test takers with 150 on reading scores “can understand easy vocabulary and common phrases, and they can understand the most-common, rule-based grammatical constructions” (p. 2). Test takers with a listening score of 200 can “sometimes understand the central idea, purpose, and basic context of *extended* spoken texts when this information is supported by a lot of repetition and easy vocabulary” (p. 2). Therefore, with an average score of 368 on TOEIC, the recruited students should be able to perform basic skills such as reading letters/documents (reading skills), writing emails/filling various forms (writing skills), and telephone/face-to-face communication (oral skills) that are sometimes (m=3.52-3.18, Table 8) used at work.

Table 8 *Frequency of English skills engaged by new graduates, as reported by 100 employers and 116 employed alumni*

Ranking	Employers (n=100)	M	SD	Ranking	Alumni (n=116)	M	SD
1	Reading English letters and documents	3.52	1.09	1	Reading specialized books, documents, and information	3.47	0.97
2	Basic reading, writing, listening, and speaking skills	3.44	1.19	2	Basic reading, writing, listening, and speaking skills	3.45	1.07
3	Reading instructions and manuals	3.42	1.03	3	Reading instructions and manuals	3.45	1.05
4	Filling in various forms	3.42	1.11	4	Reading English letters and documents	3.44	0.93
5	Telephone communication	3.40	1.11	5	Writing emails	3.28	1.10

6	Writing emails	3.35	1.03	6	Filling in various forms	3.27	1.07
7	Telephone negotiation	3.32	1.09	7	Telephone communication	3.22	1.15
8	Face-to-face communication	3.30	1.15	8	Translating instructions and manuals	3.18	1.10
9	Face-to-face negotiation	3.24	1.24	9	Face-to-face communication	3.17	1.12
10	Reading specialized books, documents, and information	3.19	1.10	10	Telephone negotiation	3.14	1.18
11	Writing letters and memos	3.09	1.06	11	Writing instructions for products and manuals	3.14	1.18
12	Translating instructions and manuals	3.04	1.10	12	Writing letters and memos	3.13	1.13
13	Writing business proposals	3.03	1.23	13	Face-to-face negotiation	3.03	1.24
14	Writing instructions for products and manuals	2.95	1.23	14	Making presentations	2.99	1.23
15	Writing specialized reports	2.40	1.21	15	Writing business proposals	2.92	1.19
16	Delivering speeches or interpretation	2.68	1.24	16	Delivering speeches or interpreting writing	2.91	1.25
17	Making presentations	2.88	1.22	17	Attending meetings, seminars, or exhibitions	2.91	1.25
18	Writing promotional documents for products	2.89	1.19	18	Writing specialized reports	2.90	1.18
19	Attending meetings, seminars, or exhibitions	2.93	1.20	19	Writing promotional documents for products	2.87	1.19

5.3 Did the TOEIC Test Adopted as a Graduation Benchmark at the Recruited Institute Promote Higher Employability?

To answer this question, 399 current students were asked on the 17-item questionnaires, as shown in Tables 9 and 10, to investigate the level of various English skills on which they had received instruction in class. The skills that were most frequently taught in class were four-skills' practice and test practice. In addition, reading skills were taught more frequently than oral skills. Similar to the findings from the employers and employed alumni, advanced skills related to work tasks such as writing specialized reports, writing promotional documents for products, delivering speeches, making presentations, and attending seminars/meetings/exhibitions were rarely taught in class.

The English certification exit requirements did not seem to combine test preparation with English skills related to work, which is evident from the fact that four-skills practice and test practice were the major activities in class ($m=3.61-3.09$, Table 9). Oral skills and basic writing skills such as placing orders and filling in various forms were taught to a much lesser degree in class ($m=2.47-2.20$, Table 9) than the frequency of their use at work ($m=3.42-3.24$, Table 8), and the differences were statistically significant ($p=.000$).

Table 9 Top 12 English skills instructed in class based on highest frequency, as reported by 399 current students

Frequency of English skills engaged at work	M	SD
Basic reading, writing, listening, and speaking skills	3.61	1.12
GEPT practice	3.19	1.07
TOEIC practice	3.09	1.12
Reading specialized books, documents, and information	2.94	1.04
Reading English letters and documents	2.90	1.03
Telephone communication	2.47	1.10
Reading instructions and manuals	2.35	.954
Face-to-face communication	2.31	1.14
Writing emails	2.29	1.03
Making presentations	2.28	1.10

Telephone negotiation	2.23	1.07
Filling in various forms	2.20	.968

Table 10 *Top five least instructed English skills in class (based on lowest frequency), as reported by 399 current students*

Frequency of English skills engaged at work	M	SD
Attending meetings, seminars, or exhibitions	1.76	1.03
Writing specialized reports	1.77	.974
Writing instructions and manuals	1.85	.927
Writing promotions for products	1.91	1.02
Writing proposals	2.05	1.02

6. Discussion

This study aimed to explore whether the use of standardized English tests (in this example, the TOEIC test) as exit requirements at a technical university can be justified as ensuring higher employability. Questionnaire responses from 100 employers, 116 employed alumni, and 399 current students in conjunction with the TOEIC test scores of 555 technical university students were analyzed to examine three research questions. According to Bachman and Palmer's AUA (2010), if a test use is appropriate, the hypothesized warrants of the claim (positive effects) will be readily apparent. However, if such use is inappropriate, hypothesized rebuttals of the claim (or negative effects) will be observed.

Based upon the findings of this study, both hypothesized warrants and rebuttals were discovered in regard to the consequences brought about by the English certification exit requirements. According to the findings from Research Question 1 on test performance, one warrant was discovered in which the average TOEIC scores of the recruited students (around 368 points) were about 150 points higher than the cutoff scores stipulated by the exit requirement policy. However, this can also be considered as a rebuttal for those students with high proficiency. Green (2007) stated that "washback will be most intense where participants consider success on the test to be challenging" (p. 24), so it only stands to reason that if the cutoff scores were attained this easily, high-proficiency students may not be willing to invest their time and effort in learning English. In view of this finding, various cutoff scores/levels should be

established for different proficiency levels of students in order to generate strong positive effects because students' perceptions of test difficulty or easiness partly determine their levels of motivation and the amount of effort they devote to preparing for the test (Chu, 2009; Watanabe, 2001).

Another warrant observed was that the exit requirement policy appeared to result in an increase in the number of students taking the TOEIC test, especially as evidenced by the higher number of third-year students ($n=257$) (who were advised to submit their score reports to the school) as compared to the number of students at other grade levels (first year, $n=50$; second year, $n=122$; fourth year, $n=126$; see Table 1). The students who signed up for the official TOEIC test can be expected to spend at least some time organizing their study accordingly. This finding is in accordance with Shohamy et al. (1996) and Shih (2008), who discovered strong washback effects as the time for taking the test approached (e.g., students spent more time on English study and took extra lessons outside class). Nevertheless, the third-year students' TOEIC scores were the lowest among the 4 years of students, and the differences were statistically significant (see Table 7). One possible reason for this finding was that the required English courses were not offered during the third year of the English learning curriculum at the recruited university, therefore resulting in a degradation of the students' test performance. In addition, the results reported that first- and fourth-year students outperformed second- and third-year students; in particular, first-year students outperformed second- and third-year students. This might be because the first-year students were required to take a 3-hour course every week, where TOEIC-related materials were adopted for class instruction. The fourth-year students might spend time preparing for TOEIC in order to meet the graduation requirements and become competitive for upcoming job hunting after graduation. In light of these findings, English courses should be adjusted and offered for all 4 years of study so that instructors can devote time to activities that engage students in both studying English and preparing for the test.

According to the findings from Research Question 2 on the content validity of TOEIC, it is good to discover, according to the 100 employers' and 116 employed alumni's questionnaires, that the TOEIC scores of recruited students partially corresponded to the level of English proficiency necessary for the workplace, especially in terms of reading skills and listening skills, but not necessarily in the case of writing and speaking skills. The TOEIC test taken by the students did not assess the test takers' productive skills. Given the mean TOEIC scores of the students, they should be able to read English letters, documents, instructions, and manuals as well as engage in oral communication either via the telephone or in person, which are skills sometimes necessary in the workplace. Furthermore, according to TOEIC listening and reading score descriptors and the European CEFR levels (Educational Testing Service, 2008), the recruited technical university's exit cutoff score of 225, equivalent to A2 on the European CEFR levels, signifies that test takers can "understand sentences and frequently used expressions

related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment)” (p. 1). This finding can be listed as evidence in validating the TOEIC test due to the fact that score interpretations about language ability are meaningful (Bachman & Palmer, 2010).

According to Bachman and Palmer’s (2010) AUA, decisions that stakeholders make based upon the test should reflect sensitivity to societal and educational values and the equitability of the decisions that are to be made. Consequently, instructors should devote an increased amount of time to activities that engage students in both preparing for the test and learning the English skills necessary for the workplace. Students will then no longer need to take extra lessons outside class and thus will have equal opportunities to learn or acquire English skills that will assist them not only in passing the standardized test but also in meeting the needs of the job market. However, based on the findings from Research Question 3 on the issue of employability, although the 399 surveyed students were given frequent test practice ($m=3.19/3.09$, Table 9), instruction in writing and oral skills, such as telephone and face-to-face communication, writing emails, and filling in various forms, was not received on a regular basis ($m=2.47-2.20$, Table 10). In terms of sensitivity to the educational values recommended by the AUA, the English certification exit requirements did not seem to promote the establishment of courses that combine test preparation with addressing the needs of the workplace. This rebuttal of the inconsistency between the curriculum and test content might lead to either teaching to the test or studying for the test, thus eliciting negative washback effects. Shepard (2000) and Robinson (2000) propose that test assessment practices should align with pedagogical and current curriculum theories. Stomp (2008) also supports this idea and demonstrates in his study that negative test effects on teaching and learning usually occur when the gap between testing and pedagogy is not addressed. The alignment of curricula with test content (e.g., TOEIC) and the English skills necessary for the workplace may accordingly also be one possibility that teachers can consider when designing the curriculum for their English classes.

7. Conclusions

This study has examined, from the perspective of validity, whether the consequences of TOEIC justify its use as a university exit requirement. It gathered findings from questionnaires completed by 399 current technical university students, 116 alumni, 100 employers, and the TOEIC test scores of 555 students to discover whether warrants and rebuttals were brought about by the English certification exit requirements. The recruited students were able to reach the cutoff scores, with mean scores of around 150 points higher. In addition, the average TOEIC scores of the students were sufficient to demonstrate the ability to perform the English skills

necessary in the workplace as reported by the alumni and employers. In this sense, the standardized exit scores were positively related to job recruitment. However, the cutoff scores demanded by the exit requirements may not be a good motivator for high proficiency students, who are not sufficiently challenged. In addition, the material instructed in class focused on the practice of test preparation and the four basic skills but did not engage in enough activities to help students to acquire skills such as oral communication that are often used at work.

To answer the main research claim of whether English certification exit requirements could ensure students' higher employability, the evidence collected from this study does not provide a definitive answer. As can be seen, the test use consequences were ambivalent—they could be interpreted as both positive and negative. If stakeholders such as policy-makers, instructors, and test developers could adjust their policy or curriculum to some extent (e.g., by adjusting the cutoff scores or aligning the curriculum with test content and the English skills necessary for work), they would be able to get the information from the available findings to make changes in order to generate positive effects. First, the findings should inform recommendations to policy-makers and administrators to duly consult with the wider society about the value or quality of the test and the usefulness of the skills tested. Second, the findings can assist English teachers in designing appropriate curricula combining knowledge that is both covered in the certification tests and necessary in the workplace. Third, the findings can provide additional evidence for test developers as one component of test validation.

When considering the implications to be drawn from this study, we should also carefully acknowledge its limitations. This study has relied upon self-reported data. As Nisbett and Wilson (1977) and Yu (2010) point out, such information is easily prone to expectancy bias. Subsequent research should include more classroom observational data and seek to corroborate quantitative information with qualitative interview data from teachers, employers, and alumni. This should allow researchers to collect more evidence—both warrants and rebuttals—to justify if the use of standardized tests as exit requirements promotes higher employability.

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Appendix A: Questionnaire 1 for Employed Alumni and Employers

Please indicate the frequency level of the following language skills that are used at work in your company.

5=always, 4=usually, 3=sometimes, 2=seldom, 1=never

1	Reading English letters and documents
2	Basic reading, writing, listening, and speaking skills
3	Reading instructions and manuals
4	Filling in various forms
5	Telephone communication
6	Writing emails
7	Telephone negotiation
8	Face-to-face communication
9	Face-to-face negotiation
10	Reading specialized books, documents, and information
11	Writing letters and memos
12	Translating instructions and manuals from English into Chinese
13	Writing business proposals
14	Writing instructions for products and manuals
15	Writing specialized reports



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- 16 Delivering speeches or interpretation
- 17 Making presentations
- 18 Writing promotional documents for products
- 19 Attending meetings, seminars, or exhibitions

Appendix B: Questionnaire 2 for the Fourth-year Students

Please indicate the frequency level of the following language activities that are conducted in your English class.

5=always, 4=usually, 3=sometimes, 2=seldom, 1=never

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- 1 Basic reading, writing, listening, and speaking skills
 - 2 Face-to-face communication
 - 3 Filling in various forms
 - 4 GEPT practice
 - 5 Making presentations
 - 6 Reading English letters and documents
 - 7 Reading instructions and manuals
 - 8 Reading specialized books, documents, and information
 - 9 Telephone communication
 - 10 Telephone negotiation
 - 11 TOEIC practice
 - 12 Writing emails
 - 13 Attending meetings, seminars, or exhibitions
 - 14 Writing specialized reports
 - 15 Writing instructions and manuals
 - 16 Writing promotions for products
 - 17 Writing proposals
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