

# Preliminary Estimates of Concordance between Pearson Test of English Academic and other Measures of English Language Competencies

## Introduction

This document outlines the research carried out to produce preliminary concordance between Pearson Test of English Academic (PTE Academic) and other measures of English language, including the Common European Framework (CEF or CEFR, Council of Europe, 2001), TOEFL® iBT and IELTS™.

## Tests comparisons using field test data

PTE Academic has been field tested using over 10,400 test takers. Field testing took place in 2007 and 2008. Test takers were representative of the global population of students seeking admission to universities and other tertiary education institutions where English is the language of instruction. Test takers were born in 158 different countries and spoke 126 different languages.

During the field tests several sets of secondary data were collected. Among these were ratings for all test takers on descriptive scales published by the Council of Europe (2001). In addition, a number of test takers reported their scores on other tests of English, including TOEIC, TOEFL PBT, TOEFL CBT, TOEFL iBT and IELTS.

A limited number of the self-reported data were invalid as the reported scores were outside the possible score range for the particular test. A small number of the test takers also submitted copies of their official score reports on the tests for which they had provided self-reported data. Table 1 shows the following for each test: the numbers of self-reported data, how many of these were valid, the mean self-reported scores, the number of official score reports sent in, the mean official scores and the correlations with the PTE Academic field test scores. All correlations are significant at  $p < .01$ <sup>1</sup>.

From Table 1 it can be concluded that the self-reported scores are in general, quite accurate. Indeed, the correlation between the self-reported results and the official score reports was .82 for TOEFL iBT and .89 for IELTS. This finding is in agreement with earlier research on self-reported data. For example, Cassady (2001) found students' self-reported GPA scores to be 'remarkably similar' to official records. The data are also consistent. According to ETS (2005, p7) the score range 75–95 on TOEFL iBT is comparable to the score range 213–240 on TOEFL CBT and to the score range 550–587 on TOEFL PBT. The mean self-reported scores in Table 1 for these three tests are therefore comparable.

<sup>1</sup> Significant at  $p < .01$  means there is less than 1% chance to observe this correlation if the measures are not related

Test	Self-reported data				Official score report		
	n Total	n Valid	Mean	Correlation	n	Mean	Correlation
TOEIC	328	327	831.5	0.76	no data	-	-
TOEFL PBT	96	92	572.3	0.64	no data	-	-
TOEFL CBT	110	107	240.5	0.46	no data	-	-
TOEFL iBT	144	140	92.9	0.75	19	92.1	0.95
IELTS	2436	2432	6.49	0.76	169	6.61	0.73

Table 1: PTE Academic field tests: test takers on other tests of English

In addition, according to ETS (2001, p3) a score range of 800–850 on TOEIC corresponds to a score range of 569-588 on TOEFL PBT, which makes the self-reported TOEIC mean score of the test takers on the PTE Academic field test also fall in line with data published by ETS.

Based on the data presented in Table 1, concordance between PTE Academic and other tests of English can be estimated, taking into account a less than optimal effort of test takers during field testing where test results have no direct relevance to the test takers.

## Relation with the Common European Framework

The preliminary relation of the PTE Academic score scale with the descriptive scale of the Common European Framework for Languages (CEF) is based on both an item-centred and a test taker-centred method. For the item-centred method the CEF level of all items was estimated by item writers, reviewed and, if necessary, adapted in the item-reviewing process. For the test taker-centred method, three extended responses (one written and two spoken) per test taker were each rated by two independent, trained raters. On disagreement between the two independent raters, a third rating was gathered and the two closest ratings were retained. A dataset of over 26,000 ratings (by test takers, by items, by raters) on up to 100 different items was analysed using the computer programme FACETS (Linacre, 1988; 2005). Estimates of the lower bounds of the CEF levels based on the item-centred method correlated at .996 with those based on the test taker-centred method.

## Validity check using BETA testing data

In addition to the initial field testing of 10,400 students during 2007-08, a further 364 test takers participated in the 2009 BETA testing of PTE Academic. The concordance between the score scale of PTE Academic and the score scales of TOEFL iBT and IELTS, each estimated from the field test data, were used as predictors of TOEFL iBT and IELTS scores of test takers participating in BETA testing. Test takers provided self-reported scores and a smaller, partially overlapping number of test takers sent in copies of their official score reports.

Table 2 shows the mean scores as self-reported and from the official score reports, the mean scores for the same test takers as predicted from their PTE Academic score and the correlations between the reported scores and the predictions from PTE Academic. All correlations are significant at  $p < .01$ <sup>1</sup>.

It can be concluded that this preliminary concordance produces fairly accurate and coherent predictions.

Test	Self-reported data				Official score report			
	n	Mean	Predicted	Correlation	n	Mean	Predicted	Correlation
TOEFL iBT	42	98.9	97.3	0.75	13	92.2	98.2	0.77
IELTS	57	6.80	6.75	0.73	15	6.60	6.51	0.83

Table 2: PTE Academic BETA: test takers on other tests of English

### Concordance of PTE Academic with other measures of English

Based on the research described above, Pearson has produced preliminary concordance tables. One table (page 4-5) shows the relationship between scores on TOEFL iBT and PTE Academic. Another table (page 6-7) shows the relationship between scores on IELTS and PTE Academic. Both tables also show Pearson’s current best estimate of the relationship between these scores and the CEF. Pearson will conduct more research in collaboration with independent scholars to increase the evidence for the validity and accuracy of these concordance tables.

### Caution while interpreting concordance tables

It must be noted that any individual level prediction of a score on a particular test based on the score observed on another test will contain measurement error, caused by error in each of the tests in the comparison and in the estimate of the concordance. Furthermore, tests in the comparison do not measure exactly the same construct.

For more information and to contact us, visit our website at [www.pearsonpte.com](http://www.pearsonpte.com)

### References

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**Preliminary estimates of concordance between PTE Academic, TOEFL iBT and the descriptive scale of the Common European Framework of Reference for Languages**

TOEFL iBT Score	PTE Academic Score	Common European Framework	Level Descriptor © Council of Europe	What does this mean for a score user?
90 89 88 87 86 85		<b>C2</b>	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.	C2 is a highly proficient level and a student at this level would be extremely comfortable engaging in academic activities at all levels.
120 119 118 117 115 – 116 114 113 112 110 - 111	84 83 82 81 80 79 78 77 76	<b>C1</b>	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.	C1 is a level at which a student can comfortably participate in all postgraduate activities including teaching. It is not required for students entering university at undergraduate level. Most international students who enter university at a B2 level would acquire a level close to or at C1 after living in the country for several years and actively participating in all language activities encountered at university.
109 107 – 108 106 105 103 – 104 102 101 99 – 100 98 97 95 – 96 94 93 91 – 92 90 89 87 - 88	75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59	<b>B2</b>	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	B2 was designed as the level required to participate independently in higher level language interaction. It is typically the level required to be able to follow academic level instruction and to participate in academic education, including both coursework and student life.

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**Preliminary estimates of concordance between PTE Academic, IELTS and the descriptive scale of the Common European Framework of Reference for Languages**

IELTS Score	PTE Academic Score	Common European Framework	Level Descriptor © Council of Europe	What does this mean for a score user?
9.0	90	C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.	C2 is a highly proficient level and a student at this level would be extremely comfortable engaging in academic activities at all levels.
	89			
	88			
	87			
	86			
8.5	85	C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.	C1 is a level at which a student can comfortably participate in all postgraduate activities including teaching. It is not required for students entering university at undergraduate level. Most international students who enter university at a B2 level would acquire a level close to or at C1 after living in the country for several years and actively participating in all language activities encountered at university.
	84			
83				
8.0	82			
	81			
	80			
7.5	79			
	78			
	77			
	76			
7.0	75	B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	B2 was designed as the level required to participate independently in higher level language interaction. It is typically the level required to be able to follow academic level instruction and to participate in academic education, including both coursework and student life.
	74			
	73			
	72			
	71			
	70			
	69			
	68			
	67			
	66			
6.5	65			
	64			
	63			
	62			
	61			
6.5	60			
	59			

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IELTS Score	PTE Academic Score	Common European Framework	Level Descriptor © Council of Europe	What does this mean for a score user?
6.5	58	B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst in an area where the language is spoken. Can produce simple connected text on topics, which are familiar, or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.	B1 is insufficient for full academic level participation in language activities. A student at this level could 'get by' in everyday situations independently. To be successful in communication in university settings additional English language courses are required.
6.0	57			
	56			
	55			
	54			
	53			
	52			
5.5	51			
	50			
	49			
	48			
	47			
5.0	46	A2	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). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.	A2 is an insufficient level for academic level participation
	45			
	44			
	43			
	42			
	41			
	40			
	39			
	38			
	37			
4.5	36			
	35			
	34			
	33			
	32			
No data available	31	A1 or below	Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.	A1 is an insufficient level for academic level participation.
	30			
	29			
No data available	10			

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