

PARAGON RESEARCH REPORTS

Linking CAEL CE Scores to IELTS - Academic Scores: A Research Summary

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The Canadian Academic English Language - Computer Edition test (CAEL CE) is designed to measure the English language proficiency of students planning to study in Canadian post-secondary institutions. This report summarizes the results of a study to compare test takers' results on CAEL CE and the academic version of the International English Language Testing System (IELTS - Academic). For both tests, the overall score is the unweighted average of the four individual component scores: listening, reading, writing, and speaking. The purpose of this study was to identify which IELTS - Academic overall band score corresponds to each CAEL CE overall score.

Data Collection

A total of 88 test takers completed both the CAEL CE and IELTS - Academic. To minimize the effect of test order, some participants took IELTS - Academic followed by CAEL CE, and other participants took CAEL CE followed by IELTS - Academic.

Table 1 shows that all of the test takers were over the age of 17 and the majority were under 40 (78.41%). 54.55% were female and 45.45% were male. While the test takers represented 25 different first-language backgrounds, the sample primarily consisted of test takers whose first language was Chinese, Farsi, Arabic, English, Korean, and Spanish. Overall, the majority of the sample represents individuals seeking entry to post-secondary institutions for undergraduate or graduate study.

Age	Percentage
17-19	5.68
20-29	37.50
30-39	35.23
≥40	21.59

Method and Results

It is important to note that the score reporting scales used by IELTS-Academic and CAEL CE scores are different. IELTS-Academic results are reported on a 9-point scale; overall scores range from 1.0 to 9.0. CAEL CE overall scores are reported on a range from 10 to 90. The score range achieved by the 88 participants on the IELTS test was 5.0 – 8.0. The participants achieved a score range of 30 – 80 on CAEL CE. The score ranges for both tests show that some truncation of the sample was observed, particularly at lower levels of proficiency. Additionally, most of the study participants received CAEL CE overall scores within the range of 50-70 and IELTS-Academic overall scores within the range of 6.0-7.0. This is to be expected; test takers typically do not attempt an academic purposes test until they are at a level of language proficiency that is close to the level required for admission to post-secondary institutions.

The CAEL CE overall and IELTS - Academic overall scores are highly correlated ($r = 0.81$), suggesting that the exams rank test takers' English language proficiency similarly.

Finding the corresponding IELTS - Academic overall score for each of the CAEL CE overall scores was accomplished by what is known as score linking or equating. Score linking establishes a transformation from a score on one scale to a score on the other scale. This can be achieved

using a number of different methods (Kolen & Brennan, 1995). Paragon explored the regression-based prediction method and the equipercentile linking method, and determined that the latter was more appropriate. In equipercentile linking, each CAEL CE overall score and its corresponding IELTS - Academic overall score would pass a similar percentage of test takers.

Table 2 presents the linking results; for each CAEL CE overall band score, it shows the corresponding IELTS - Academic overall score. A CAEL CE overall score of 70 most closely corresponds to an IELTS - Academic overall score of 7.0 and a CAEL CE overall score of 60 most closely corresponds to an IELTS - Academic overall score of 6.5. Note that the CAEL CE overall score values of 10, 20, and 90 were not observed in this study, therefore the corresponding IELTS - Academic overall score may not be extrapolated.

Table 2: Equipercentile linking results	
CAEL CE overall score	IELTS - Academic overall score
90 ¹	-- ¹
80	8.0
70	7.0
60	6.5
50	6.0
40	5.5
30	4.5
20 ¹	-- ¹
10 ¹	-- ¹

Cautions and Limitations

Though CAEL CE and IELTS - Academic are used for the same purpose (proof of English language proficiency for admission to post-secondary institutions), they have dissimilar designs and operationalise the underlying construct in different ways. As a result, we can expect differences in how test takers with the same underlying language proficiency will perform on each test. Indeed, if test takers have prepared for one test but not the other, we expect that this will impact their performance. In the case of this study, we expect that test takers had primarily prepared for IELTS - Academic. As a result, they probably performed relatively better on IELTS - Academic than they did on the less well known CAEL CE. To address this imbalance, Paragon will continue to collect data from test takers who sit for both IELTS - Academic and CAEL CE.

¹This indicates that the score is not represented in the dataset.

References

Kolen, M.J. and Brennan, R.L. (1995). *Test Equating Methods and Practices*. New York, NY: Springer.

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