USE OF ENGLISH LANGUAGE LEVELS TO ENHANCE THE UNDERSTANDING OF CAMBRIDGE CENTRE FOR EVALUATION AND MONITORING (CEM) ASSESSMENT OUTCOMES FOR STUDENTS WHO DO NOT HAVE ENGLISH AS THEIR FIRST LANGUAGE

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Abstract

As CEM assessments are used more internationally, in Cambridge International schools for example, it is important to bear in mind that many students will not have English as their first language. In this collaborative study with Cambridge English and Cambridge International, we are evaluating the effect of English Language on assessment scores for those who have English as a second language.

Initially working with students in schools in Thailand, and Vietnam, we are establishing their Common European Framework of Reference for Languages (CEFR) levels in Reading, Writing, Speaking and Listening in English. For this we are using the suite of online English Benchmarking Tests developed by the Multi-Level Team at Cambridge English. These tests provide a score on the CEFR scale and a more granular scaled score on the Cambridge English Scale.

By selecting students who have taken CEM's digital Middle Years Information System (MidYIS) test for secondary students, we aim to compare the scores from that test with the English scores, to establish correlations. The MidYIS assessment provides a prediction to future International General Certificate of Secondary Education (IGCSE) scores and this prediction model may be improved with greater information about individual students. Schools may also find that knowing their students' CEFR levels could be useful in other planning and teaching scenarios.

Keywords: E-assessment, EAL, CEFR.

1 INTRODUCTION

The ability to read, write and communicate in the English language can be extremely important for young people for whom English is not their first language. The ubiquity of English as a *lingua franca* in business, science, publishing, and entertainment means that those without a good understanding of English can miss out on opportunities (work or education for instance) in later life.

Currently, many schools around the world offer education through the medium of English with the aim of developing a level of English Language ability that will provide students with wider opportunities when they reach adulthood. In these schools, students for whom English is an additional language (EAL) may find themselves in a difficult position compared with their English-speaking peers, as developing proficiency in the new language is expected to happen alongside their learning in other subjects.

It is easy to think of second language acquisition as unidimensional, but in the early 1980s Cummins [1] suggested a model for second language acquisition (SLA) which distinguishes between two levels of language proficiency. Basic interpersonal communicative skills (BICS) are those used for general conversation and communication, whereas cognitive academic language proficiency (CALP) refers to those language skills that require a greater cognitive demand including the development of complex vocabularies associated with subjects such as mathematics or science. Cummins argued that the basic language proficiency between two siblings aged six and twelve would not vary widely. Both are capable of functional use of language and can make themselves understood in normal social contexts and their BICS are similar. The difference is in the development of language associated with that of academia, and that this consists largely of new vocabulary. The older child will be developing specific vocabularies and language structures in order to access the higher level of understanding associated with greater subject knowledge (CALP). For instance, students learning science must understand that the word 'cell' has different meanings in Physics, Biology and in general life.

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Cummins further asserted that it is difficult for teachers to realise the difference between these two facets of language proficiency, particularly if they have students whose skills in conversation and discussion are strong. The misconception that these students are also developing the academic language proficiency required to access a secondary education at the same rate as their native speaking peers is a very common assumption. Indeed, Owen [2] states that "It can take seven years or more for an EAL learner arriving with no English to catch up with their English-speaking peers and gain academic proficiency in English."

The issue is complex, however. Strand and Hessel [3] in their study of EAL proficiency and educational achievement, found that English proficiency is only partly the key to success. Second language speakers may appear to be fluent and yet still vary greatly in their achievement. Several factors are in play here, many of which are described in Hutchinson's report for the Education Policy Institute [4]. A key consideration is that EAL students are, of course, heterogeneous as a group; apart from their level of English proficiency, the age at which they started in the school system, their first language, and other life experiences may have a large effect on their future learning. In addition, measurement of language proficiency at one point in time may not be a good indicator of proficiency when the student sits public examinations.

This then begs the question 'What level of English is required to access the curriculum and the assessments used to measure it?'. This question assumes that it is possible to define a level, and that it is the same for every student. This small study represents a first attempt to clarify some of these issues and provide a focus for further work in this area.

The Centre for Evaluation and Monitoring (CEM) is part of Cambridge University Press and Assessment (CUPA) and offers baseline assessments for use in schools for students in the age range 3 to 18 years. These assessments typically provide a measure of general ability covering English and Mathematics and, in the case of the assessments for older students, they also provide a projection of likely outcomes at International General Certificate of Secondary Education (IGCSE), General Certificate of Secondary Education (GCSE) or Advanced (A) Level. Originally designed for use in English schools, these assessments are increasingly used by schools across the world. In turn, this raises questions about the role of English language level required to access the tests and, importantly, whether language level affects our understanding of assessment results. Therefore, to ensure that such assessments are appropriate for this audience, a small pilot project was established to investigate the effect of English language level on CEM assessment outcomes. Schools in Southeast Asia that already used the CEM assessments were selected to take part in the study.

Participating students were invited to take a panel of tests of English language ability. These tests, developed by our colleagues in Cambridge English (another part of Cambridge University Press & Assessment, focused on language testing), cover speaking, listening, reading, and writing and report both a scaled score and a Common European Framework of Reference for Languages (CEFR) level. CEFR is a widely recognised language proficiency framework that describes language ability in six levels, ranging from A1 (basic) to C2 (proficient).

2 METHODOLOGY

A sample of schools in Southeast Asia were contacted and asked if they wished to take part in a small pilot project examining the relationship between English language proficiency and scores in CEM assessments. This report is based around the results from one participating school in Malaysia and relies on a sample which may not be fully representative of the larger group, or schools in other geographic areas.

Students (both English speakers and those for whom English is a second or additional language) who had taken the CEM Middle Years Information System (MidYIS) assessment in years 7, 8 or 9 in the academic year 2022/23 were asked to take Cambridge English tests of Speaking, Listening, Reading, and Writing. These computer adaptive online tests took around 20 minutes each to complete. The results were a scaled score in the range 0 to 185 and a CEFR level calculated from the scaled score using table 1 below:

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Table 1. Scaled scores ranges to CEFR levels.

Scaled score range		
Start	***End***	***CEFR level***
0	99	Below A1
100	119	A1
120	*139*	*A2*
140	*159*	*B1*
160	*185*	*B2 or above*

Student records from the Cambridge English tests were matched to those from the CEM MidYIS assessment. The MidYIS assessment comprises four sections, Vocabulary, Maths, Nonverbal and Skills. Scores from all the sections are combined to create an overall MidYIS score.

Pearson correlations were calculated between Cambridge English scaled scores and each section of the MidYIS assessment, as well as the overall MidYIS score. The student sample was split into two parts; those for whom English was an additional language (EAL) and those for whom English was their first language.

Students were also asked to complete a short survey about how often and where they used English. There were 19 responses, 7 English speakers and 12 for whom English was an additional language.

3 RESULTS

In this preliminary study the sample size was very small (EAL students n= 48, English speakers n = 26) and from one school, so these results may not be representative of larger datasets. In tables 2 and 3 below, the highest correlation for each MidYIS sub score is shown in bold.

Table 2. Correlations between MidYIS sub scores and English level – EAL students

EAL	***Vocabulary***	***Maths***	***Nonverbal***	***Skills***	***MidYIS Score***
Listening	0.55	-0.05	0.17	0.46	0.36
Reading	0.57	0.09	**0.25**	**0.69**	0.48
Speaking	0.24	-0.08	0.06	0.27	0.12
Writing	**0.61**	**0.15**	0.20	0.60	**0.54**

Table 3. Correlations between MidYIS sub scores and English level - English speakers

English	***Vocabulary***	***Maths***	***Nonverbal***	***Skills***	***MidYIS Score***
Listening	0.55	0.45	0.35	0.44	0.56
Reading	0.67	0.60	0.61	0.59	0.69
Speaking	0.21	0.30	0.30	0.35	0.29
Writing	0.54	0.70	0.70	0.66	0.70

The differences between correlations in tables 2 and 3 provide an interesting picture. Although all the Cambridge English scaled scores correlate positively with all parts of the MidYIS assessment for English speakers, this is not the case for those who have English as an additional language. For EAL students the correlations tended to be lowest for the Nonverbal and Maths sections of the assessment. These low correlations provide some evidence that the Maths and Nonverbal sections do not require a particular level of English proficiency. This is borne out by an examination of the mean scores for each section as shown in table 4.

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Table 4. Mean standardised scores for sub sections of the MidYIS assessment.

	Vocabulary	Maths	Nonverbal	Skills	MidYIS Score
EAL	79.48	110.38	111.38	92.63	94.38
English	110.19	110.50	112.35	108.85	111.58

Table 4 shows that the Maths and Nonverbal MidYIS mean scores are very similar for the EAL and English-speaking students, whereas the Vocabulary and Skills mean scores are lower for EAL students. Lower Vocabulary and Skills scores will have the effect of reducing the overall MidYIS score, which is a weighted average of all four sections. Since the overall MidYIS score is used to calculate projections to likely IGCSE or A Level outcomes, such projections could be compromised by the effects of English language proficiency in some parts of the assessment.

To help us understand the language backgrounds of students in the sample, we analysed results from the survey. The results of each question are reported here, along with brief comments about what it shows about the students included in the study (EAL n= 12, English speakers n= 7).

Table 5. Question 1 responses

Q1. How much of the time are you taught in English at school?				
	All the time	Most of the time	Half of the time	Some of the time
EAL	4	8	0	0
English	3	3	1	0

The answers to Q1 show that most students are taught in English all or most of the time. One student stated that they were taught in English only half of the time.

Table 6. Question 2 responses.

Q2. Which subjects at school are taught in English?											
	Maths	English	English Literature	Biology	Chemistry	Physics	Science	History	Geography	French	Spanish
EAL	11	12	7	12	12	11	7	12	12	4	0
English	7	7	7	7	7	7	5	7	7	2	2

Responses to Q2 showed a diverse range of subjects were taught in English, reinforcing the importance of English proficiency in the school setting. Indeed, in some cases respondents noted that even French and Spanish were taught in English.

Table 7. Question 3 responses.

Q3. How old were you when you started learning English or people started talking to you in English?													
	2	3	4	5	6	7	8	9	10	11	12	13	14
EAL	1	2	0	1	0	0	2	3	0	0	0	2	1

This question was only offered to those who indicated that English was not their first language. The findings from question 3 are striking. Although this study is treating the EAL students as a group, it highlights the heterogeneity in such groups mentioned previously. Their experiences of speaking and learning English are very different with a small number learning early in life and some starting in late primary or early secondary school.

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Table 8. Question 4 responses.

Q4. Do you listen to or speak English outside of school?		
	Yes	No
EAL	11	1
English	7	0

Table 8 shows that most of the students speak English outside of school (except for one student who only started learning English at age 14).

Table 9. Question 5 responses.

Q5. If so, which of these things do you do? (in English)				
	Read books	Watch films	Read social media	Text message
EAL (n=11)	7	8	6	11
English	7	7	7	7

The responses to Question 5 really show the importance of English in social situations, and that everyone texts in English. It also highlights that students may have basic interpersonal communicative skills (BICS) independent of cognitive academic language proficiency (CALP).

Table 10. Question 6 responses.

Q6. How many languages do you regularly speak at home?				
	One	Two	Three	More
EAL	4	6	1	1
English	2	3	1	0

Again, the responses to this question show that although this study has divided the students into two groups, there is a considerable overlap. Among both groups, speaking more than one language at home is common.

Table 11. Question 7 responses.

Q7. Which languages do you regularly speak at home?								
	Chinese	Mandarin	Cantonese	Japanese	Korean	Thai	Bahasa Melayu	English
EAL	2	3	0	2	2	0	1	4
English	0	2	1	0	0	1	1	7

Results from Q7 showed that a diverse range of languages was spoken by EAL students and, even among the English speakers, a number of other languages were used at home.

Table 12. Question 8 responses.

Q8. Do you speak English at home?		
	Yes	No
EAL	6	6
English	7	0

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Half of the EAL students spoke English at home, and all the native English speakers, although we know from question 7 that they also speak other languages at home.

Table 13. Question 9 responses.

Q9. If yes, how often do you speak English at home?				
	All the time	***Most of the time***	***Half of the time***	***Some of the time***
EAL	0	1	2	3
English	4	3	0	0

The results from question 9 back up those from questions 7 and 8 in that even native speakers also speak other languages at home.

4 CONCLUSIONS

This study provides an initial insight into why tests of English language proficiency might provide a valuable extra source of information for teachers and students, especially those who are working towards international examinations such as IGCSE.

The results show that students in international schools tend to display a high degree of heterogeneity in terms of their language backgrounds. This may affect their learning and progress in different ways depending on the cognitive load placed upon them. In some subjects, such as mathematics or science, where developing a new vocabulary is an important part of subject knowledge acquisition, students who are concurrently learning a new language may find the load excessive.

A measure of English language proficiency could provide teachers with extra insight into how well their students could manage the cognitive load, but since such tests normally assess basic interpersonal communicative skills (BICS), they may still not reveal issues that students could be having with the language demands of specific subjects.

The ability to understand and communicate in English is critical for success any examination conducted in English. Students who have a lower level of English proficiency may find it more difficult to understand the exam instructions, which may affect their motivation and increase their stress levels. In addition, they may struggle to express their ideas clearly in written answers. Consequently, even if the students understand the taught content well, their English language level must also be sufficient to enable them to express this in an examination setting.

This study was not able to establish what level of English proficiency is appropriate to allow students to successfully access secondary education. As we have seen from the sample data, students who self-report as first language English speakers may still routinely use other languages at home. In addition, English proficiency is just one factor that can influence learning outcomes. Other factors, such as the student's academic ability, their familiarity with the exam format, and the quality of their preparation for the exams, can also play a significant role.

Another important question would be, which English language skills contribute most to success in MidYIS assessments (or, indeed, later high-stakes assessments such as IGCSEs)? Examination of the data shows that the results of the Speaking test correlated least well. This is hardly surprising, as speaking ability is not assessed by MidYIS or by many IGCSE subjects. Reading and Writing appeared to be the areas that correlated most strongly with MidYIS scores, and if time were at a premium, tests of these two areas alone may provide the most useful information of a student’s ability to access the assessment.

The CEFR levels are based on a set of general descriptors and do not provide a completely accurate reflection of a student's English language proficiency. They can only provide a broad indication of a student's language ability and are only an indication of language ability at a particular point in time. When students are learning a new language in a suitably supportive environment their ability can change rapidly. Therefore, it is important for teachers to assess each student's individual strengths and weaknesses in English and provide appropriate support and guidance to help them succeed in their learning goals.

The results of the study also indicate that the way assessment results are used should be considered in the light of English proficiency. MidYIS results are used to create projections of future performance in high stakes examinations and can be used to inform teaching and provision of support. In an

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international setting, where English language level may influence some aspects of test scores, we must therefore consider how to best reflect this in use of the resulting information. Further work in this area will be carried out to better understand the implications.

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