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Supporting national education reform: The Cambridge Malaysia Baseline Project

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Project background and aims

Education is widely recognised as a fundamental contributor to social and economic growth as it plays a key role in fostering social justice and equal opportunity. Many countries worldwide, therefore, are focusing on nationwide educational reform in order to improve standards of achievement and make their education system more effective, which will lead to the development of social and economic capital (Tiongson 2005). Malaysia has embarked on an ambitious nationwide education reform and in October 2011 the Ministry of Education in Malaysia launched a review of the education system in order to develop a new National Education Blueprint - the *Malaysia Education Blueprint 2013–2025* (Ministry of Education Malaysia 2013; referred to as the Education Blueprint in the rest of this article). The Education Blueprint presents the aspirations and goals of the reform, which aim to improve the access, quality, equity, unity and efficiency of the educational system and at the individual level, improve students’ basic knowledge, thinking skills, leadership skills, bilingual proficiency, ethics, and spirituality and national identity. The Education Blueprint provides a realistic analysis of the strengths and areas for development of the national education system in relation to these aims and outlines a reform trajectory.

Proficiency in English (i.e. bilingual proficiency) plays an important role in the Malaysia educational reform, largely due to the increased importance of English as a global language and its role as a *lingua franca*. One key goal of the Malaysian national educational reform is to ensure that every child will be, at minimum, operationally proficient in Bahasa Malaysia as the national language and language of unity, and in English as the international language of communication’ (Education Blueprint 2013: E-10). An essential starting point for such a goal is to establish a reliable baseline against which future growth and targets can be set. In 2013, the Ministry commissioned Cambridge English Language Assessment to provide such a baseline by undertaking a comprehensive evaluation of the learning, teaching and assessment of the English language in Malaysian schools from pre-school to pre-university. Cambridge English Language Assessment was well placed to undertake such an ambitious project due to its expertise in investigating the impact of examinations and its belief in the principle of ‘impact by design’, which starts from the premise that assessment and education systems should be designed from the outset with the potential to achieve positive impact (Saville 2012). Additionally, Cambridge English had established experience in education reform through investigating educational standards in a range of international contexts in a comprehensive and evidence-based manner before attempts were made to improve those standards.

The aim of the 2013 Baseline Project was to provide the Ministry with a clear, evidence-based profile of how the Malaysian English language education system is currently performing against internationally recognised standards linked to the Common European Framework of Reference for Languages (CEFR, Council of Europe 2001), which could be used to facilitate data-driven decisions on future targets and the means of achieving the aspirations identified in the Education Blueprint.

The key aims of the project were to:

- benchmark students at different school grades against international standards in terms of English language proficiency, overall and by individual language skills (reading, listening, writing, speaking)
- benchmark teachers against international standards in terms of:
  - English language proficiency, overall and by language skills (reading, listening, writing, speaking)
  - teaching knowledge
  - teaching practice
- explore the role of a range of factors such as the contexts of and attitudes towards learning, school location, school type, class specialisation and gender in language proficiency
- review current national curricula, assessments and learning materials.

The following article describes the comprehensive analysis of the national English language education system in Malaysia in order to create a baseline from which comparisons to international standards can be made, achievement gaps identified, ways to improve performance identified and future targets set.

Conducting the project

A mixed methods approach

A premise recognised in educational reform is that ‘a key characteristic of the educational process is that student learning is influenced by many small factors rather than a few large ones‘ (Chapman, Weidman, Cohen and Mercer 2005:526). Therefore, any recommendations made in the project needed to be based on an in-depth understanding of
several inter-connected aspects of the educational system in order to ensure they are achievable and to reduce the chances of any negative unintended consequences. As a result, the project involved the gathering and investigating of different types of information which provide insights into various aspects of this complex project, and focused not only on measuring English language levels of students and teachers, but also on investigating the context of learning, the availability and quality of resources, and stakeholder perceptions.

A mixed methods approach formed the basis of the study and a convergent parallel design (Creswell 2009) was chosen due to its value in collecting qualitative and quantitative data strands in a parallel fashion and in relatively short timeframes. Within the convergent parallel mixed methods design, quantitative and qualitative data strands are collected concurrently and independently, are analysed separately and are then integrated to inform the final overall interpretation and discussion of results. This approach allowed Cambridge English to build a rich picture of the current situation with regard to learning, teaching and assessment in Malaysia, as well as enhancing the validity of the findings and recommendations.

Figure 1 presents an overview of the data collection and data analysis procedures which formed the backbone of the project.

**Data collection instruments**

A range of instruments was used to allow the collection of both quantitative and qualitative data. They comprised:

- **Benchmarking English language tests for students and teachers:**
  - Tests covering CEFR Levels pre-A1 to C2
- **Questionnaires for students, teachers and education leaders**
- **Classroom observations – teaching practice assessment**
- **Comments in questionnaires for students, teachers and education leaders**
- **Semi-structured interviews with policy planners**
- **Classroom observations – observer comments and post-observation discussions**
- **Review of curricula, examinations, learning materials**

**Project participants**

A total of 943 primary and secondary schools were selected (approximately 10% of schools in Malaysia) using a stratified sampling methodology. The students and teachers in those schools were intended to be representative of the overall target population. All 16 states and federal territories in the country were represented, and schools were selected from urban, rural and remote locations, ensuring a geographically representative sample. In primary schools, there was an added dimension in that alongside Bahasa Malaysian schools, there were also schools that taught in Tamil and Chinese. These schools were proportionally represented in the sample as well.

In total, 20,402 students took a Reading and Listening test, and from that group 9,921 were assessed for Writing, 1,372 for Speaking and 17,104 students completed a questionnaire.

A total of 424 teachers took a Reading and Listening test, with 266 taking a Writing test and 42 a Speaking test; 600 took the Teaching Knowledge Test (TKT), 78 were observed while teaching and 1,290 completed a teacher questionnaire.

Forty-one Heads of Panel/Head Teachers were interviewed, 31 of them completed questionnaires and four Ministry officials were interviewed.

In addition, 14 Speaking Examiners, four Classroom Observers and a local Ministry of Education task force were involved in the successful implementation and completion of the project. Photo 1 shows Ministry officials and speaking examiners en route to one of the participating schools in Kelantan.

![Figure 1: Research design](3186 RN58.indd)
at providing information on language proficiency in terms of Reading, Listening, Writing and Speaking as measured against the CEFR.

- **Benchmarking Teaching Knowledge Test for teachers:** Intended to provide a measure of knowledge of and familiarity with teaching knowledge concepts in an objectively scored test.
- **Student, teacher and Head of Panel/Head Teacher questionnaires:** Aimed at gathering stakeholder perceptions of and attitudes towards English language learning, teaching and assessment in Malaysia.
- **Classroom observations and post-observation discussions:** Intended to gather in-depth information on teaching competence and performance for a smaller sub-set of the selected sample.
- **Semi-structured interviews with policy planners and senior school administrators:** Focused on exploring perceptions of the review project and expected outcomes, as well as views on curriculum, textbooks, examinations and teaching practice.
- **Curricula, textbooks and examinations review:** Intended to investigate issues such as the relationship between standards, curricula, textbooks and examinations and the CEFR; information on the extent to which the different documents complement each other and reflect latest trends in learning, teaching and assessment, e.g. student-centred learning and teaching, learning-oriented assessment, communicative-ability assessment.

Photos 2 and 3 capture elements of the data collection and show student work during a classroom observation as well as a Cambridge English observer and a participating teacher in discussion following a classroom observation.

**Data analysis**

The mixed methods research design underlying this project involved both qualitative and quantitative analyses, which comprised:

- **CEFR level mapping:** Rasch analysis and ability estimates.
- **Descriptive statistics:** To provide an overall picture of CEFR language level, teaching knowledge and stakeholder perceptions, as well as the amount of variability within each group. The analysis focused on the cohort as a whole (e.g. all Form 5 students) and on specific variables within the cohort (e.g. Form 5 boys and girls; Form 5 urban, rural and remote students).
- **Linear and logistic regression:** To investigate which background and attitudinal factors play a role in high and low achievement.
- **Multilevel modelling:** To explore and confirm whether any attitudinal and background variables (e.g. student motivation, use of the internet) played a significant role in predicting the language level of students.
- **Chi-square test of independence:** To investigate whether the different variables of interest (e.g. state, location, gender, etc.) were related to questionnaire responses. Standardised residuals were also computed to identify which responses were contributing to the test of significance.
- **ANOVA and t-tests:** To explore whether there was any variance in the teacher group means for questionnaire composite measures. Questionnaire statements on similar topics (e.g. assessment practices, use of English in the classroom, etc.) were grouped together to determine whether teacher variables (e.g. experience, education, school type, etc.) influenced responses.
- **Thematic analysis:** Focused on grouping the wealth of collected in-depth observational, questionnaire, interview
and descriptive data into general thematic categories which indicated major issues brought up by the different stakeholders participating in the project.

The final analysis stage involved an integration of the findings from the language and TKT, the practices noted in the classroom observations and in the discussions with teachers, the themes from the questionnaires and from the interviews with senior administrators in schools and senior officials in the Ministry of Education, and the review of curricula, assessment and teaching materials.

Project outcomes

The completion of the project was marked by the delivery of three reports: an Executive Summary, a Results Report and a Technical Report.

The Executive Summary and Results reports provided information on student English language proficiency, with a focus on the overall and by-skill performance of the five school grades of interest and the attitudinal and background factors which play a role in English language achievement. The results from the baseline study indicated a range of student language proficiency. As expected in Malaysia, some students in Forms 5 and 6 were found to achieve high levels of proficiency. However, the proportion of students achieving the CEFR C1 and C2 levels was lower than expected. Furthermore, the results indicated that a significant proportion of students in the system are left behind and never progress beyond a basic user level of English. Interestingly, Speaking emerged as the weakest skill for students at all school grades. This is most likely due to a range of reasons including insufficient opportunities to practise in and out of the classroom and the strong emphasis on reading and writing over listening and speaking found in the reviewed national curricula, assessments and learning materials. The account of the student performance of the cohorts overall was supplemented by an investigation of performance based on key variables and comparisons between them, such as: states/federal territories; urban, rural and remote location; school types; gender; class specialisation. One of the most striking findings to emerge was the achievement gap across students at the same school grade. This achievement gap was pronounced in terms of location of the school, with students in remote and rural areas consistently performing worse than their urban counterparts. A further gap in achievement, which was especially pronounced in Forms 3 and 5, was based on gender, with female students performing significantly better than their male classmates. An achievement gap related to students’ subject specialism was also found. In Forms 5 and 6 students in Science specialisation classes were found to perform significantly better than their classmates in Arts, Vocational and Religious class specialisations. The identification of such achievement gaps is vital in providing the evidence required to implement educational reform that is effective in promoting social justice and equal opportunity.

Findings were also presented on teacher English language proficiency, teaching knowledge and teaching practice. In each case, performance overall was given, followed by comparisons based on key variables such as urban, rural and remote location, and primary/secondary school. The vast majority of teachers achieved CEFR Levels B1 and above.

Although many teachers achieved high levels of proficiency, a significant number were found to be below minimum required levels. Speaking was again the weakest skill for most teachers. Importantly, the test performance findings were integrated with the findings on attitudinal and background variables which play a role in teacher attainment and enabled the identification of achievement gaps related to school location and school stage. Achievement gaps emerged indicating that teachers from urban schools performed consistently better in all four skills, as compared to their colleagues in rural and remote locations. Teachers in secondary schools have higher levels of English than their primary school colleagues. In terms of teaching practice, some examples of excellence were observed throughout the participating schools. At the same time, classroom observers noted that although teachers were uniformly strong in establishing a good rapport with students, they were generally much weaker in planning, managing and monitoring learning. In some cases, their limited language ability and/or limited skill in using graded language suitable for their students was negatively impacting their effectiveness.

The following comments from an observer and a Head of Panel illustrate this:

‘The teacher is held back by her language skills. Her poor grammar and vocabulary and control of prosodic features lead to inaccurate examples and modeling.’ (Observer)

‘A lot of teachers have not mastered the language, so they are not able to deliver lessons confidently and accurately.’ (Urban secondary school, Head of Panel)

The integration of test data, attitudinal and contextual data, including open-ended comments from the teacher questionnaire, interviews with Heads of Panel/Head Teachers and Ministry of Education officials, and extended feedback from the classroom observers provided an in-depth picture of the current educational attainment in English proficiency and factors which impact on it. Specifically, the findings illustrated how a range of factors such as school culture, teaching resources and teacher training and professional development can shape the learning environment, which in turn can influence instructional quality and learning outcomes. The findings indicated that although teachers like teaching English they are overwhelmed by administration. Teachers stated that they want more professional development; for example, they need differentiation strategies in order to better support learners in mixed-ability classes. The questionnaire responses also suggested that parents need support to participate more fully in their child’s education. Furthermore, improved internet access and more ICT resources were found to be required.

A review of key policy-setting documents which shape the learning, teaching and assessment in classrooms was also provided in the report, with a discussion of current curricula, learning materials and examinations. Finally, recommendations based on the mixed methods findings were provided, with suggestions for ways forward.

The Technical Report provided detailed information on the project, including sampling, project participants, instrument development, data analysis procedures and significance testing output.

The successful completion of the project was supported by the collaborative efforts of the Ministry and school
teams working alongside a Cambridge English project team consisting of members with a broad range of expertise and experience in the fields of English language assessment, curricula development, teacher training and development, primary and secondary education, sampling, research methodology, data analysis, operational delivery and processing, and educational reform.

Recommendations

The comprehensive set of findings of the Cambridge Malaysia Baseline Project formed the basis of recommendations for further action (Cambridge English 2014). The three main strands of the project – students, teachers and curricula, assessments and learning materials – are inevitably linked in a common ‘ecological system’, where changes to one affect the others. It was important, therefore, for Cambridge English to provide recommendations which address the complex system of learning, teaching, assessment, materials and policy. Those recommendations related to all three strands of the project and included suggestions for benchmarking language learning to international standards, revising primary and secondary curricula, examinations and assessments.

The recommendations formed the basis for an integrated solution which targeted a wide range of aspects of language policy going beyond the Baseline findings, such as:

- language policy and strategy
- curriculum reform
- materials and resources
- assessment and certification
- teacher development
- programme implementation
- evaluation and impact analysis.

The proposed integrated solution was designed to create the best possible conditions for learning to occur and to assist the Ministry of Education in making the aspirations set out in the Education Blueprint a reality. This would, in turn, provide the young people of Malaysia with the knowledge, skills, attitudes and beliefs to enable them to become global citizens of the 21st century.

References


