

The Cambridge International Examinations bilingual research agenda

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Bilingualism and bilingual education

Bilingualism is at least as common as monolingualism. Throughout the voluminous research literature, academic definitions of the term bilingual abound, from the early, limited and very narrow definitions, 'native-like control of two languages' (Bloomfield, 1935, p.56) to more flexible contemporary descriptions, 'the presence of two or more languages' (Dewaele, Housen & Li, 2003, p.1), which reflect the awareness of the interdisciplinary nature of studies in bilingualism. Seen simply, the current view of bilingualism is the ability or need to perform in two languages.

Bilingual education – 'a simplistic label for a complex phenomenon' (Baker, 2006, p.213) – has been widely researched since the mid-1960s, and experts throughout the world have attempted to define and analyse the complexity and effectiveness of different bilingual education programmes. Cummins (2009) offers a helpful conceptualisation of bilingual education: 'an organized and planned program that uses two (or more) languages of instruction. The central defining feature of bilingual programs is that the languages are used to teach subject matter content rather than just the languages themselves.' (p.161)

Interpretation of the research on bilingualism and bilingual education has been highly controversial among both academics and policy-makers, and political sensitivities surrounding the issue have contributed to considerable confusion about what the research is actually suggesting. However, over the last decade as knowledge of the extent of bilingualism has grown, discussions of bilingualism have focused on 'the many kinds and degrees of bilingualism and bilingual situations' (Crystal, 2003, p.51), leading to in-depth descriptions of the varied and disparate circumstances involved in bilingualism, anticipating the call for understanding the bilingual situation through its purpose and its context (Edwards, 2004).

The educational context

The context within which students prepare for Cambridge International Examinations (CIE) assessments are often linguistically and educationally diverse. Whatever the country, the common denominator of CIE schools is that students are taking CIE assessments through the medium of English and therefore being educated through the medium of English. Some schools use bilingual instruction, delivering certain subjects through English as an additional language and other subjects through the first language, often trying to meet standards in both an international curriculum and a national curriculum. The opportunity to learn an additional language through a content subject has led to the practice of content and language integrated learning (CLIL) programmes. Other schools use monolingual instruction and deliver all subjects through English, either as a first or as an additional language. Some of these

schools will have monocultural student populations, whilst others will have multicultural populations. The latter places an additional responsibility on content teachers to be 'language aware' across the curriculum.

Whether students follow an entire curriculum in English or undertake only one or two CIE examinations in parallel with qualifications from their own (non-English) national curriculum as part of a bilingual education programme, the integration of curricula in bilingual education programmes presents challenges for teachers and their students. As a consequence, CIE is keen to understand this context in order to evaluate the impact of this choice of education programme and particularly the role of assessment within it. The Education Division (CIE) has outlined a coherent programme of research designed to address a number of key issues relating to bilingualism and learning, curriculum, pedagogy and assessment. The overall aim of the research is:

- to help build a pool of expertise and reputation in bilingual education
- to support the work of other parts of CIE involved in bilingual education, and
- to improve service to CIE schools.

The CIE bilingual research programme

The research programme is designed to address a number of specific questions grouped according to four principal themes:

1. What is the impact of different teaching environments?

- What is the impact of different amounts of time studying in each language?
- What is the impact of the choice of subject taught in the Second Language (L2)?
- What is the impact of the way teachers share the language roles?
- Are there significant differences in the way bilingual education is organised at primary and secondary level?

2. What impact does bilingual education have on the teaching and learning process?

- Do academic skills and subject knowledge skills transfer across languages?
- Do literacy skills transfer across languages?
- What different approaches are taken to learning to read and write in bilingual education systems?
- What research has been carried out about bilingual education in early years?

3. What is the impact of bilingual education on learner outcomes?

- What is the impact of bilingual education on achievement at school?
- What is the impact of having a bilingual education background for Higher Education?

4. What are the key assessment issues?

- What methods of assessment are used in bilingual education programmes?
- How is assessment adapted for bilingual education?

Review of the literature

Over the last 18 months, CIE has conducted a number of reviews of the bilingual education literature (Lewis, 2010; Chu *et al.*, 2011) in order to begin to address some of these questions. The most salient points to emerge from the reviews are:

- More research is needed into ways of making academic content more accessible and meaningful to students in bilingual programmes particularly in areas/subjects considered challenging when learning academic content occurs through the L2.
- Bilingual education is a complex phenomenon.
- Different models of bilingual education – ‘weak’ (‘subtractive’) and ‘strong’ forms (‘additive’) – impact differently on learner outcomes and achievement at school.
- Traditional models over the last 40 years do not suffice in the twenty-first century.
- There has been a move away from traditional models of bilingual education and a focus more on effective classroom practice.
- Urgent need to develop effective bilingual assessment methods that reflect classroom practices.
- Effective evaluation of learning and understanding of emergent bilinguals through a framework of dynamic bilingualism and performance-based, on-going, multimodal assessments.
- A way to create more equitable assessments for emergent bilinguals is to employ ‘translanguaging’ practices within assessments. Baker (2000, p.104–105) defines translanguaging as ‘the hearing or reading of a lesson, a passage in a book or a section of work in one language and the development of the work (i.e. by discussion, writing a passage, completing a worksheet, conducting an experiment) in the other language’.

What are the key messages?

The key messages emerging from the literature reviews are that bilingual education is:

- **Challenging**, in terms of learning subjects through an additional language.
- **Complex**, with a discernible shift away from the simplicity and variety of typologies of bilingual education to ‘engaging with optimal classroom dual language practices that maximise growth and gains for individual children’ (Baker, 2008, p.106).
- **Changing**, and in need of urgent development, in terms of assessment. Traditional typologies are in need of expansion in order

to capture the linguistic complexity of the emerging bilingual (and multilingual) education practices of the twenty-first century (Garcia, 2009a). In other words, there is a move away from effective models towards effective practices, and a shift from strict separation of languages to bilingual or multilingual discourse practices.

Research questions

CIE is therefore conducting a number of studies designed to address specific language-related questions in relation to its own assessments, as well as exploring the potential for bilingual assessments (formative or summative). For example:

- What level of English, according to the Common European Framework of References for Languages (CEFR), is useful to access CIE assessments?
- What cognitive and academic language skills are needed to access CIE assessments?
- How can schools be supported to prepare teachers and learners for whom English is a second language (E2L) for bilingual programmes which include high-stakes, international assessment? For example, they could be given the tools to develop language awareness amongst content teachers as well as coordination between content and language teachers. Schools could also be guided on mapping their national against the international curriculum to streamline teaching and learning.
- Does the level of English impact on standards achieved in CIE non-language qualifications?
- What does successful attainment of CIE non-language qualifications indicate about language proficiency?
- What form of new assessments would enable bilingual students to demonstrate their strengths?

Research into language awareness

To tackle the first message of ‘challenge’ (and the first three research questions above), CIE has conducted research into the English language levels and skills required to achieve in typical CIE IGCSE subjects, focusing on History, Geography and Biology. By analysing assessment input and candidate output, CIE has identified useful target CEFR English language levels, as well as the type of cognitive academic language proficiency (CALP) needed for different subjects. For example:

<i>History</i>	<i>Biology</i>	<i>Geography</i>
Mainly open questions with constructed responses: describing, explaining, evaluating. In-depth source evaluation. E.g. <ul style="list-style-type: none"> • <i>How far...</i> • <i>How successful...</i> 	Precision: limited range of language functions signalled by different command words each with a precise meaning. E.g. <ul style="list-style-type: none"> • <i>Name...</i> • <i>Describe...</i> • <i>Predict...</i> 	Flexibility: variety of question types requiring a range of language skills. Broad range of command words. E.g. <ul style="list-style-type: none"> • <i>Calculate...</i> (prompting non-linguistic answers) • <i>Identify...</i> (prompting short answers) • <i>Explain...</i> (prompting developed answers)

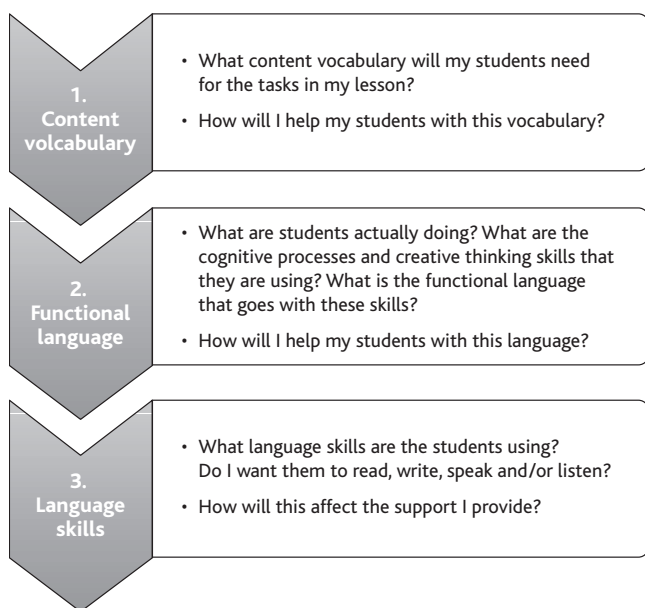
Practical applications have arisen from this research:

1) Language guidance has been provided for CIE question writers.

For example:

- Avoid phrasal verbs
- Phrasal verbs use simple words. However, they are colloquial and potentially difficult to process.
- Candidates may have difficulty with expressions like 'put up with'. This could be replaced by 'tolerate'.

2) Language guidance to support teachers and learners in the classroom has been commissioned by CIE (Chadwick, 2012). For example, this will encourage subject teachers to consider the following questions:



Research into bilingual education

To tackle the second message of 'complexity', CIE has commissioned a guide into excellence in bilingual education, capturing the key research on bilingual education as well as focusing on effective school management and classroom practice (Mehisto, 2012). This will focus on core considerations applicable to diverse contexts, regardless of the particular model of bilingual education that a school uses.

Research into developing bilingual assessments

Regarding the third message of 'change', CIE is at this stage simply exploring current thinking in order to consider future challenges and opportunities. Garcia (2009) notes that 'no area of bilingual education is in more need of development than that of bilingual assessment.' (p.378). She concludes that, '... without large-scale bilingual assessment that would take into consideration the bilingual continuum in which bilingual children operate, as well as the integrated nature of their language proficiency and content knowledge, bilingual children will never be able to demonstrate their strength' (p.378).

Bilingual assessment is an issue that needs to be developed and researched in order to accommodate the bilingual continuum in which bilingual children operate. It is evident that this 'most thorny issue' (García, 2009, p.396) stems from the fact that assessment methods for

bilinguals have developed from the practice of testing monolinguals and most often ignore the children's bilingualism by assessing their abilities and knowledge as if they were performing as two monolinguals. Consequently, the monolingualism of most assessments does not reflect the bilingual practices of the classroom (García, 2009). There is a pressing requirement, therefore, to develop effective bilingual assessment methods that reflect classroom practices of using two (or more) languages for teaching and learning so that bilingual children are given the opportunity to show their proficiency and competences in both languages.

García (2009, p. 371–375) has conducted a comprehensive review of ways in which all assessments, including large-scale standardised assessment, could be done in bilingual ways. One of her main recommendations includes a *translanguaging* mode of bilingual assessment. Translanguaging '... is the act performed by bilinguals of accessing different linguistic features or various modes of what are described as autonomous languages, in order to maximize communicative potential' (Garcia, 2009a, p.140). Translanguaging reinforces the interrelationship between the two languages while also reinforcing the languages. According to Baker (2000), translanguaging has the potential to 'promote a deeper and fuller understanding of the subject matter' (p.104) and to 'develop skills in the weaker language ...' (p.105) and as a communicative practice, offers a range of communicative and educational possibilities.

The way forward

The growth of multiple multilingual education programmes at the end of the 20th century has been in response to the type of complex bilingualism brought about by globalisation (Garcia, 2009a, p.146). There is now a requirement to construct bilingual models that reflect the fluidity of classroom practices that have come about because of the 'translanguaging' that is characteristic of bilingual classrooms today. Echoing Garcia's concerns, it is crucial then that future bilingual assessment practice 'can tap the pluriliteracies of multimodal texts which bilingual children must produce in the twenty-first century' (Garcia, 2009, p.378).

Translanguaging in high-stakes situations may be only appropriate to localities where only two languages are in use (such as Welsh-English in Wales, or Spanish-English in certain parts of the USA). There would be considerable pragmatic issues in providing translanguaging opportunities on an equitable basis in multilingual contexts. Much of the literature focuses on the experience of classroom practice and formative assessment, and this may be where the potential lies for CIE schools.

CIE is attempting, therefore, to build an understanding of best practice in the area of bilingual education and to guide any future developments in terms of language awareness and bilingual assessment which can be shared more widely across the assessment community.

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Cambridge Assessment Statistics Reports: Recent highlights

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Introduction

The Research Division publishes a number of Statistics Reports each year based on the latest national examinations data. These are statistical summaries of various aspects of the English examination system, covering topics such as subject provision and uptake, popular subject combinations, trends over time in the uptake of particular subjects and the examination attainment of different groups of candidates.

The National Pupil Database (NPD) is the source of most of these reports. This is a very large longitudinal database, owned by the Department for Education, which tracks the examination attainment of all pupils within schools in England from their early years up to Key Stage 5 (A level or equivalent). It is updated annually from data provided by the awarding bodies and goes back as far as 1996. Another database, the Pupil Level Annual School Census (PLASC), can be requested matched to the NPD. This contains background information on candidates such as deprivation indicators, language, ethnicity and special educational needs. Other sources of data used to produce the Statistics Reports include the Inter-Awarding Body Statistics produced by the Joint Council for Qualifications (JCQ) and the National Candidate Results Archive.

This article highlights some of the most recent Statistics Reports, published between 2010 and 2011. Full copies of all the Statistics Reports are available in the research section of the Cambridge Assessment website (www.cambridgeassessment.org.uk) and new additions to the Statistics Reports series will be listed in future issues of *Research Matters*.

Routine reports: Provision, uptake and results of GCSE and A level qualifications

A number of the statistics reports are produced routinely on a yearly basis. These reports are simple presentations of provision, uptake and results of GCSE and A levels, without commentary on the results. The purpose of these reports is to make readily available examinations data that is not (to our knowledge) provided elsewhere.

Uptake and results of GCSE and A level qualifications over time (Statistics Report Nos. 30–33)

The first set of routinely produced reports presents data on all entries and results for GCSEs and A levels taken in England, Northern Ireland and Wales over a period of several years (the latest reports are for 2002–2010). The data are compiled from the Inter-Awarding Body Statistics.

Four separate reports are routinely produced each year:

- GCSE uptake and results by gender
- A level uptake and results by gender
- GCSE uptake and results by school type
- A level uptake and results by school type

Within each report, uptake and results are presented for all subjects together and then broken down by subject category. Within each subject category there are sometimes different specifications. For instance, the