READING SKILLS IN THE EARLY YEARS IN INTERNATIONAL SCHOOLS

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Cambridge University Press & Assessment (UNITED KINGDOM)

Abstract

Introduction: Cambridge's Centre for Evaluation and Monitoring launched their Check Together product in 2023. This online assessment of Early Years skills is used with learners in schools around the world to assess their early reading and mathematics skills on entry to formal schooling. The assessment is carried out by teachers in five countries, in English, in schools that use English for the primary means of educational communication.

The early reading module of the assessment covers letter recognition (requiring students to identify letters presented on screen verbally), word recognition (requiring students to point to one of five words presented on screen that they hear) and vocabulary (requiring students to point to items in an on-screen picture that they believe match the word they hear), providing teachers with insight into learner starting points for literacy education.

Method: Children starting in EY2 aged 4-5 in schools in Cyprus, Indonesia, India, Thailand and Vietnam were assessed using Cambridge Early Years Check Together: a computer-based adaptive assessment.

Data from the assessments of 1010 students in 33 schools across the 5 countries were analysed. We used Rasch analysis to calculate difficulty values for each item in the assessment and further analysis was carried out to determine the percentage of children able to answer each question correctly. The results were then broken down by country to form a comparison.

Findings: It is clear from the data that there are broad similarities between children in different countries regarding English letter recognition. Across all countries in the study there is some common understanding of the early phonics sounds advocated by the UK curriculum, but the ability of children to recognise them in assessment conditions at this early stage is varied and when examined by country, there appears to be differences in 'school academic readiness' which is perhaps cultural.

However, confidence levels with individual letters did not always correlate with word recognition assessment scores. Indeed, in some cases, learners who were very confident in letter recognition were not in word recognition, and vice versa.

Interestingly, when reviewing the data for the vocabulary section of the test, we found 75% of all learners in the study were confident in 11 of the 12 words tested, despite lower confidence scores in the letter and word recognition parts of the assessment.

Conclusion: What is noted by the analysis is that when formal schooling in English begins, an understanding of the early English phonic sounds seems apparent in most countries to some degree, but the readiness of children for formal schooling differs widely between countries.

Knowing what children know and can do is vital to effective lesson planning in the Early Years. Using an assessment such as Cambridge Early Years Check Together at the start of the new school year can provide real insights into the knowledge and understanding of young children that could otherwise take weeks or months to discover in a typical classroom setting. Providing a safe space for children to answer questions in a one-to-one setting with their teacher can reveal significant levels of ability from which to begin formal instruction.

Keywords: Early Reading, Assessment, International education.

1 INTRODUCTION

1.1 Learning to read

Psychologists and educators have for many years deliberated on the processes by which children learn to read. Seminal work by Noam Chomsky [1] postulated an innate language acquisition device (LAD) common to every human child and Bronfenbrenner's ecological theory [2] provides a basis for ideas about home learning environments (HLEs) [3] postulating that the child's immediate family has the most

effect on child development. This forms the backbone of many of the current theories. From these beginnings it is clear that establishing a positive learning environment from a young age is extremely beneficial to future language learning [4]. Since children learn by modelling the behaviours of others, establishing an environment where parents support their children's nascent literacy skills, is a vital element in their development. Parents can do this by engaging in shared reading, teaching letters and sounds, visiting libraries and developing an interest in books [5].

Important stages in the early process of learning to read are letter knowledge, phoneme awareness, and phonological awareness [6]. Letter knowledge and phoneme awareness are closely linked in the early stages. Letter names can be understood in terms of naming specific shapes, but the association of appropriate sounds to those letters gives children the ability to sound out whole words. Unfortunately, in the English language at least, knowing the letter sounds is not enough. Combinations of vowels or consonants provide many more unique sounds that are used in the language. To learn these extra sounds, phonological awareness is required.

Finally, to read fluently it is important that the ability to rapidly recognise known words is developed. To read for meaning, sounding out words letter by letter is far too taxing on short term memory and children who attempt to read this way rapidly lose track of the meaning of the text. Also, rapid recognition of known words helps with the decoding of unfamiliar words because the cognitive load is lessened [7].

1.2 English as a foreign language

Since Check Together is designed for international schools, in most cases English will not be the mother tongue for the child in the school. However, Cambridge schools use English as the primary method of communication, so how will this impact on children's learning? One method which is rapidly finding favour is to use the Content and Language Integrated Learning (CLIL) approach [8]. CLIL is a method of learning both specific content and the language simultaneously. Used widely in Spain, the method has been piloted successfully in several other countries including Thailand [9], Indonesia [10] and Vietnam [11]. This approach is particularly well suited to younger learners as they are effectively learning two languages at the same time.

Whatever method is used, the key factor is how much exposure and in what settings the access to the second language is. Studies such as those detailed by Byers-Heinlein [12] show that there are large differences between children raised completely bilingual from birth and those whose access to their second language is moderated by access to school, caregivers or similar.

2 METHODOLOGY

The Check Together assessment is a baseline assessment, enabling educators to determine a child's prior knowledge. This is always interesting with very young children, because what they have learnt and the way in which they've learnt it varies: some will have had some formal instruction in a nursery or EY1 setting, using specific learning goals such as those from the Cambridge Early Years curriculum, whilst others will have been at home engaging with an adult one to one, with lots of variation in input between the two. The assessment was designed around the Cambridge Early Years curriculum and is taken one-to-one with a teacher or other education professional and is designed to be engaging and fun to use. For Literacy, the main areas assessed and links to the curriculum are shown in Table 1.

Section	How it is assessed	Curriculum area	
Concepts About Print (CAP)	Pointing to someone who is reading, someone who is writing, individual letters, words, where to start reading, and some punctation.	 1CLc.01 Listen and respond appropriately in everyday situations, although not necessarily immediately. 1CLc.28 Recognise that text and images in printed and digital texts are a way of sharing information, and that people read text for meaning. 	
Vocabulary	Pointing to specific objects in a picture.	1CLc.18 Use a range of appropriate vocabulary to describe objects and people that are of particular importance to them to describe experiences and express ideas.	
Letter Recognition	Recognising the letters of the alphabet, either by sound or name.	1CLI.06 Identify some regular letter–sound correspondences in familiar words, for example, letters in their own name, or letters in words in everyday print (e.g. signs, packaging) or familiar books.	
		2CL.FLEI.01 Identify and pronounce the most common sound (phoneme) for each individual lower-case and capital letter (grapheme).	

Table 1 Sections of the Check Together assessment and their Cambridge Early Years curriculum links

Word Recognition	Pointing to a word they hear.	2CL.FLEI.05 Recognise some common words by sight, including irregular words (e.g. the, to, you).
Phonics	Reading words that contain common blends of vowels or consonants.	2CL.FLEI.03 Identify the most common letter(s) for many sounds (phonemes) and some combinations of sounds.

Children starting in EY2 aged 4-5 in schools in Cyprus, Indonesia, India, Thailand and Vietnam were assessed using Cambridge Early Years Check Together, a computer-based adaptive assessment.

Data from the assessment of 1010 students in 33 schools across the 5 countries was analysed. The numbers of children from each country are shown in Table 2.

Country	Number of schools Number in sample Average age at assessment			
Cyprus	2	23	4.3	
India	21	817	4.5	
Indonesia	3	116	4.8	
Thailand	2	30	4.9	
Vietnam	1	24	4.9	

Table 2. School summary data

As shown, the samples are not evenly spread between the participating schools with the schools in India being overrepresented and the schools in Cyprus and Vietnam least represented. Such an uneven spread of results is not ideal as a basis for a comparison, but since this is a live and comparatively new assessment it does contain the results from all the children who took it in the latter part of 2024. We used Rasch analysis to calculate difficulty values for each item in the assessment and further analysis was carried out to determine the percentage of children able to answer each question correctly. The results were then broken down by country to form a comparison.

3 RESULTS

3.1 Concepts about print

As stated previously, before learning to read it is important for the learner to understand that print conveys information. Children often learn this from their parents or their siblings when they are reading together. The child rapidly comes to understand that the letters form words and are laid out in a specific way, normally starting with a capital letter and ending with a full stop. The Concepts About Print section (CAP) aims to assess these basic skills.



Figure 1 Concepts About Print by country

Interestingly, students from Vietnam had a lower understanding of print concepts in English than students in other countries, though their sample was small. The concept of what 'reading', 'writing' and 'letter' mean in English was limited to less than 25% of children in most cases, whilst students from India and Indonesia had a strong grasp of these concepts, with children from India confident with more technical terms such as *capital letter* and *full stop*.

3.2 Vocabulary

Vocabulary is a strong predictor of future learning as the ability to remember the names of things, even if they are not often used, acts as a proxy for the ability to remember ideas, concepts and names more widely. Of course, it is unlikely that learners who are learning a new language will have as large a vocabulary as they would in their native tongue, but it is important if they are to be taught in English to establish a basic English vocabulary very quickly. However, research has shown [13] that there is a big difference between the vocabulary required by everyday speech and the vocabulary needed for full understanding of complex topics and that this is often overlooked by teachers who are teaching learners with English as an additional language.

Confidence in identifying heard English words by pointing to equivalent items in a picture is varied among this group.



Figure 2 Vocabulary by country

This is perhaps unsurprising as many of these words could reasonably be acquired through basic interpersonal or social situations conducted in English: this word-association-to-object skill doesn't rely on formal educational instruction. What is interesting though, is just how consistently confident the children from India are in comparison to the children from the other countries.

3.3 Letter Recognition

In the letter recognition section, children must identify either the name of the letter shown or the phonetic sound it typically produces. Letters are presented not alphabetically, but in a phonic sequence typical of phonics programmes permitted in England. As previously noted, phonological awareness is more beneficial to learners than letter names because it better facilitates the sounding out of letter combinations and the sound blending needed to read whole words.

The letters that children in this study are most confident with are broadly in line with the early phonic sounds advocated in English phonics programmes (often referred to as the *satpin* letters and sounds). However, there are also some interesting patterns. Some of the phonic sounds English children would encounter last in their phonic learning journey, such as those associated with the letters *x* and *z*, appear to be more recognisable to the international students in the study.

When we break this data down by country, interesting patterns emerge.



Figure 3 Letters by country (the first 13)



Figure 4 Letters by country (the second 13)

Student confidence levels across the letter sequence drop off quickly, particularly for students from both Cyprus and Vietnam (none of the children from Vietnam reached the later letters of the test). The decline is less pronounced for Indonesia and Thailand. India's recognition levels are consistently high: above 50% for all 26 letters, even with the more challenging English sounds e.g. x (6th most confident) and z (9th most confident).

The confidence order of letters for the children from India is also interesting in that the letters they are most confident with don't appear to be grouped in any obvious alphabetical or linguistic way. For example, we might expect a child who recognises and can say the bilabial plosives p and m (4th and 7th position in the confidence order for India) to be able to say the other bilabial plosive sound: b, but this letter ranks in 21st position in their confidence order. Alternatively, we might expect children who have learnt the names of each letter to be most confident with the early letters of the alphabet, and d was one of the letters with which they were least confident.

Perhaps India's results are unsurprising as data suggests 49% of children from India are registered in pre-primary education institutions. However, much higher levels of pre-primary education enrolment are reported in Indonesia and Thailand (81% and 75% respectively) [14] where students did not perform as well in this section. English is less widely spoken in Indonesia and Thailand than in India which could offer an explanation, but it is also widely spoken in Cyprus though, with a report suggesting 73% of the Cypriot population can speak English [15]. It therefore seems likely that a combination of factors is producing the outcome in the early parts of the literacy test for children from India who seem well equipped to tackle the questions.

3.4 Word Recognition

In the word recognition section, children are asked to point to the word their teacher says to them. The words are early words, often CVC words, which correlate with the earliest English phonics sounds: *s*, *a*, *t*, *p*, *i*, *n*. While there appears to be some broad commonality between countries in the letter recognition section of the test (discussed above), as children progress to blend those letter sounds into early words, confidence appears to dip.



Figure 5 Word recognition by country

Among the Cypriot sample, *s* was the only letter recognised by 50% or more of students and yet *sat* was recognised by only 21%, behind *tap* at 25%, and this is despite the letter/sound *t* ranking 6^{th} in their confidence ratings.

In Indonesia, confidence levels of over 50% exist for nearly half of the English alphabet, but this is not reflected in the word recognition test, a pattern also seen among students from India and Thailand.

Vietnam emerges as the interesting outlier in this test section as shown when we compare their letter recognition confidence with their word recognition confidence in *Fig. 6*.

We can see that in the Vietnam sample, whilst student confidence with English letter recognition declines relatively quickly, word reading confidence is consistently high, with the results for this country the highest across the test sample. Over 60% of children selected the target word correctly, despite approximately 50% of them having confidence with just 9 of the 26 letters of the English alphabet.



Figure 6 Comparing letter knowledge with Word Recognition – children from Vietnam

3.5 Phonics

The phonics section in Check Together is only reached if children complete each of the previous test sections making less than 4 total errors per section or avoiding 3 errors in a row. In our sample, none of the children from Cyprus or Vietnam made it to this section – the sample sizes from each country were also much smaller than those from our other countries.



Figure 7 Phonics by country

What is interesting, and illuminated in *Fig.* 7, is that the students from Indonesia had the most success in this section of the test by some way, and this is despite the children having less confidence than their counterparts in both Vietnam and India in the word recognition section of the test, where they were required to identify the written word on screen from the aural target word.

When we examine the words in the assessment, we can see that this is more remarkable because these words are not always phonetically sounded, requiring automated word recognition by sight to be able to pronounce, e.g. *food, some, when* and *high*. Indeed, the impact of the silent *e* in *some* and the trigraph *igh* in *high* are sounds and rules taught later in most English phonics curricula due to their relative complexity.

4 CONCLUSIONS

In the UK and around the world, Check Together's sister assessment BASE [16,17], which follows a similar structure for assessing literacy may be used. The BASE assessment has been taken by children in the UK since 2015 with stable results found in year-by-year comparisons. Results from BASE show that just under 40% of the children could recognise half of the letters of the alphabet on entry to their Reception year (the first formal year of schooling in the UK, which children join the September ahead of their fifth birthday). Their recognition of the *satpin* letters, which form the first six in synthetic phonics programmes, was variable. Around 20% of children were able to read some simple CVC words.

Some of these trends are also evident in the results from the Check Together papers [16,17], implying some universality in the acquisition of early English literacy skills. From the analysis, it is clear that:

- Children's English vocabulary awareness is strong, with their ability to match words to pictured objects the most confident of all skills tested at this young age.
- There is some common understanding of the early phonics sounds advocated in phonics schemes recommended by the English National Curriculum, with *s*, *a*, *p*, *i* and *n* being the five most confidently identified letters/sounds across all countries. However, the ability of children to recognise them in assessment conditions at this early stage is highly varied and when examined by country, the data appears to suggest differences in pre-primary English instruction.
- Children in all countries except Vietnam saw a decrease in confidence between the letter recognition and word recognition sections.

• Interestingly though, it was children from Indonesia who were most confident in verbally articulating words phonically, despite their relative lack of confidence with letter recognition or word recognition in print.

So, what factors do these varied outcomes point to?

Firstly, there is a difference in how families, friends, available educational content through TV, apps or other media, and schools, guide their children towards literacy in English. Some explanation for the outcomes could be that some countries or school systems are not utilising English phonics or alphabet recognition in pre-primary education programmes as they do in the UK. The formal school starting age is 6 for each country in our study, except Indonesia, where it is 7, so this might also be a contributing factor to these results.

The results for the children from India, where letter recognition was high, but word recognition and phonic ability was lower could be a result of teaching alphabet names, rather than phonic sounds which may be similar for countries like Vietnam, where letter recognition was very low, and yet phonic ability was higher. Check Together accepts either alphabet names or phonic sounds, but phonic sounds are more valuable when sounding out words. Whilst synthetic phonics programmes reign supreme in many parts of the western world, there are other methods for effective reading instruction and these results perhaps point to a more varied approach internationally. For example, it could be that in Vietnam, rather than progressing through the full list of letter sounds first, they are developing whole word syllabication or recognition alongside fewer letter sounds.

We can also say that exposure to English outside of the classroom does not necessarily equate to confidence in letter identification or word recognition in the classroom. Many of the children in the study would be learning English at home or utilising it socially and yet the ability to sound out some letters or words was inconsistent, perhaps because in daily life, interaction with English would come in the form of full words e.g. *push* or *pull* on doors.

Ultimately, the results confirm that children do not arrive at formal schooling with the same knowledge or skillset – their backgrounds are extremely varied, and teachers require assessments like Check Together to enable a detailed understanding of those starting points from which to begin formal learning.

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