



Llywodraeth Cymru  
Welsh Government

# Effective approaches and methods in immersion education: Summary of Rapid Evidence Assessment findings

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## Introduction

This report presents the findings of a rapid assessment of the available evidence about effective approaches and methods in immersion education. The study was commissioned by the Welsh Government, and the research was conducted by IAITH in collaboration with researchers from Cardiff Metropolitan University between January and October 2023.

The study was based on the following research question:

What does the literature tell us about effective approaches in immersion education and about effective pedagogy in immersion education?

Four secondary research questions were asked:

- i) What does the evidence tell us about the effectiveness of introducing and using a language or languages other than the target language at different stages of the learner's education and linguistic journey?
- ii) What does the evidence tell us about the effectiveness of introducing and maintaining immersion education for learners of different ages i.e. what are the characteristics of effective provision in terms of early, mid and late immersion education?
- iii) What does the evidence tell us about approaches to deal with a range of linguistic backgrounds and previous linguistic experiences amongst cohorts or groups of learners?
- iv) Are there particular issues that merit attention in terms of additional learning needs and immersion education provision?

A [full report and executive summary](#) of the methodology and findings of the research have been published. This summary is intended to offer guidance to teachers, trainers, training providers and students in Wales. In particular it should be of use to:

- practitioners working in funded non-maintained nursery settings;
- educators in Welsh medium and dual language schools, and immersion centres, and
- initial training providers and professional development providers for the education workforce.

The approaches and methods discussed in this summary are relevant to the education of pupils aged 3-16 in Wales.

The evidence presented in this report situates Welsh-medium immersion education in the wider context of international evidence about the characteristics of effective immersion education. However, it should be noted that effective provision could be different in Wales, in comparison with international contexts. When planning provision and evaluating its effectiveness, requirements and circumstances that are specific to Wales should be a central consideration.

### **What is a Rapid Evidence Assessment (REA)?**

REA is a type of evidence review that includes conclusions on the characteristics of the evidence available on a particular subject or area. It includes a critical evaluation of the evidence, and a synthesis of what the evidence shows. It aims to avoid bias, describing each step transparently to produce an objective and thorough review.

### **Advantages and Disadvantages of conducting an REA**

The advantage of a REA is that it offers a means of auditing, mapping and categorising relevant evidence quickly, without neglecting key features such as assessing the quality of evidence. The speed of a REA is also one of its limitations. The focus needs to be kept narrow, resulting in decisions having to be made about what databases and content criteria are to be used. It is important to bear these advantages and disadvantages in mind when considering the findings.

### **Methodology of the study**

A summary of the methodology used to conduct the study is presented below. More detailed information can be found in the main report.

A series of steps were taken to identify, screen and examine the literature. Criteria were used to include and exclude items through an iterative process of refining and defining the scope of the study.

### Stage 1

As an initial step, a comprehensive literature audit process was developed across a number of databases. It was determined which terms were most likely to be included in immersion literature, drawing on the expertise of the research team and in consultation with practitioners, trainers, training providers and system leaders working in the field, at a virtual focus group meeting. Search terms were trialled, based on the following criteria:

- **type of publication:** journal articles, books, book chapters, reports, reviews, grey literature and dissertations were used
- **range of publication dates:** it was decided to include items published between 2000 and 2023
- **publication language:** Welsh and English

Internationally recognised experts in immersion education were invited to draw the research team's attention to research publications that would be relevant to the study, from their experience, and which met the screening criteria. They were also asked for examples of current and forthcoming research. 44 items were received from one of the contributing experts. The same procedure was followed for screening and extracting information about these items.

### Stage 2

Having gathered the relevant literature (4,342 items), a screening stage was then conducted to ensure that the literature discussed the effectiveness of something that could be identified as an approach or a method in immersion education, and that it applied to immersion education in Wales. A total of 180 items that met the criteria were obtained at Stage 2.

### Stage 3

This stage involved information extraction, quality assessment and weighing of evidence for the 180 items, using a Data Extraction Form which consisted of 53 questions to extract the data required from each item. A total of 65 items that received a high weighting score were obtained and went on to Stage 4, namely synthesis development.

#### Stage 4

A synthesis of the findings of the studies was drafted. The iterative process of refining the scope of the review continued as the synthesis was drawn up. As a result of this process, 41 items were included in the final synthesis.

A range of methodologies were included in the synthesis, including reviews, experiments, views studies, and cohort studies. Most of the evidence came from the United States of America, with a range of other countries also included.

#### Producing a summary for practitioners

A summary of the REA findings was prepared for practitioners, trainers and training providers. Stakeholders who attended the Focus Group 1 session were invited to the Focus Group 2 session, to provide views and comments on a draft of the summary.

## Defining immersion education

In this study, 'immersion education' is defined as learners' experience of receiving education through the medium of the school's language, with that language being different from the language spoken at home (the term L1 is used when referring to this language). The term L2 is used when referring to the second language taught (the term 'target language' is also used). These are recognised terms in the field when referring to first language and second language.

There are different interpretations of immersion education, depending on the context ([Estyn, 2022](#)).<sup>[1]</sup> For example, in some cases, immersion education refers to education given to children from families who have moved (from abroad to a new country) and are now immersed in the language of the school (namely the majority language of their new country). An example of this is migrants from Syria attending a school in Sweden. In other cases, immersion education refers to the situation of pupils learning in their country of birth, but are being immersed (at school) in another language. An example of this is children attending Mandarin school in the USA.

Immersion education in Wales is usually a combination of what is internationally known as 'immersion education' and 'heritage language education'. The second is a term that refers to a wide range of programmes aimed at providing learners with the opportunity to develop a higher level of proficiency in a heritage language (Estyn, 2022).

In Wales, in classes taught through the medium of Welsh, learners who speak Welsh at home are educated together with learners who do not speak Welsh at home. Although the education in the classroom is the same for all learners, those who do not speak Welsh at home receive immersion education. In this sense, 'immersion' refers to the type of learner (one who receives education through the medium of a language not spoken at home), rather than the education itself.

Immersion education in Wales can differ from that in some international contexts. In particular, it may be different in terms of the amount of education provided through the medium of the target language. Each approach or method described in this summary targets learners who are immersed in a language or languages other than the language spoken at home in different contexts.

This summary makes a distinction between two main categories of immersion education in line with Welsh Government definitions:

## **Early immersion**

Most learners receiving Welsh-medium education in Wales go through a process of early immersion; that is, they follow their education through the medium of Welsh from the beginning of statutory education (in Welsh-medium primary schools), or earlier if they take up nursery education at three and four years of age, either in maintained or non-maintained nursery settings. In early immersion in Wales, Welsh is usually introduced as the only language of instruction 'up to and including the school year in which the majority of learners turn 7' (Estyn, 2022:7).

Early immersion education is also available before this age, in various types of childcare settings: private day nurseries, playgroups and cylchoedd meithrin.[2] There is variety in terms of the linguistic background of the learners, as well as the opportunities that they have to come into contact with the Welsh language both socially and with their families.

## **Late immersion**

The immersion in the following cases is referred to as 'late immersion' or 'medium immersion' (depending on the age of latecomers) (Williams, 2008):[3]

- children in families migrating to Wales,
- children moving from the English-medium sector to the Welsh-medium sector after foundation learning,
- children in families moving from another area of Wales.

For the purposes of this study, the term 'late immersion' is used to refer to the provision for latecomers entering Welsh-medium education after 7 years of age. These individuals may come from diverse linguistic backgrounds, and may already be educated in Wales, or have moved to Wales from England or another country.



## Findings of the Rapid Evidence Assessment

The findings of the rapid assessment of the evidence are presented in line with the four secondary questions. In each case, a brief description of the strategy is given, how it was used (in the study in question), and the impact. It should be noted that the languages taught in the studies below all represent an education context where the situation is relevant to the Welsh language (i.e. education in a language that is considered a minority language in a bilingual and multilingual context). In some cases, there are examples of languages that are considered to be a majority language at international level (e.g. English), but in the specific contexts discussed, that language is considered a minority language.

## 1. The effectiveness of introducing and using a language or languages other than the target language at different stages of the learner's education and linguistic journey

Eight items of evidence discussed the effectiveness of introducing and using language or languages other than the target language at different stages of the learner's education and linguistic journey.

### Targeting linguistic competence

1. **What:** Paired literacy – teaching literacy in both languages from the beginning of the statutory school period.

**How:** In a longitudinal study by Butvilofsky et al. (2016) in the United States of America, literacy sessions were held with bilingual learners aged 3-11 years (**Spanish-English**) based on a literacy programme, 'Literacy Squared', at different stages during the school day. In this intervention, literacy in both languages is taught from the start of statutory school onwards at different stages during the school day. As learners get older, efforts are made to draw attention to links between the two languages and to build strategies to support them to make those connections independently.

**Impact:** Learners were assessed over a three-year period and were found to have made significant literacy gains in both languages. The greatest growth was seen in **Spanish** initially, whilst the greatest growth in the development of English literacy occurred when learners were 9-11 years old.

2. **What:** Use reading books offering a story in both languages.

**How:** Leighton (2022) reports on findings from the Children’s Book Initiative (CBI) primary school literacy intervention conducted by Save the Children in Bangladesh with 6-year-olds. The aim of the intervention was to improve literacy outcomes in an area where the language medium of statutory education (**Bangla**) was different from the language spoken at home for the majority of learners. In the intervention, story books were used which combined the language of the classroom with the learners’ local language.

**Impact:** Following a two-year period, a significant increase was seen in the literacy results of the class and the literacy results of the home languages of the learners.

### **Classroom strategies**

3. **What:** The best features of various immersion programmes are summarised in a literature review by Lightbown (2014).

**How:** The review discusses a range of approaches and methods used in primary and secondary schools across the world, mainly relating to the way in which lessons are structured.

**Impact:** The Lightbown review demonstrates the need for:

- scheduling a long period of time (thousands of hours) in order to learn a language;
- committing to intense periods of immersion (i.e. lessons take place in longer sessions);
- presenting academic content that challenges and entertains learners;
- teaching through the medium of the target language in order to have the greatest impact on language transmission, focussing on learners’ literacy as well as oracy (in the learners’ first language, as well as their target language);
- opportunities to use the language beyond the classroom, within and beyond the school environment.

4. **What:** Classroom language practices, based on the work of Mady (2019).

**How:** This study explores the views of new teachers in Canada on the use of languages in **French** as a second language immersion classes where **English** learners were also present. Among the participants questioned, namely newly qualified teachers, French was considered the target language to model to learners. Two main reasons were offered for this: in order to support linguistic development in French and as a means of reducing the gap between English learners and learners fluent in English. The teachers aimed to limit their use of English, increase their use of French, but also be open to using the home languages of their learners. Teachers also took advantage of opportunities to use the learners' first language to demonstrate links with the target language (French).

**Impact:** There is a suggestion that some teachers in the study were concerned about the impact of immersion education on students from various home languages.

5. **What:** The impact of immersion education on children's language and literacy results: Hipfner-Boucher et al. (2016).

**How:** The study focussed on 6-year-old children from Canada who spoke **Chinese** at home and followed three different educational programmes, namely **French** immersion, **Chinese-English** bilingual education, and **English** only education.

**Impact:** It was seen in the learners' results that those who attended the French immersion programme scored significantly higher than those who went through the bilingual Chinese-English and English-only education systems. The authors of the study note that, based on their evidence, education through the medium of French or Chinese can facilitate the acquisition of English.

6. **What:** There is discussion about the language medium of the classroom in various primary school immersion programmes in Rolstad et al. (2005).

**How:** The work considers 17 studies covering the use of languages other than the target language.

**Impact:** The authors conclude that a method using learners' first language as an education medium is beneficial to them when acquiring the target language.

7. **What:** Model 2-1-L2 in a secondary school context in Arizona, the United States of America, based on the work of Przymus (2016).

**How:** In the 2-1-L2 model, 90-minute lessons are structured as follows: 30 minutes immersion in English, 30 minutes immersion in Spanish, and 30 minutes of using both languages in practices such as translanguaging.

**Impact:** This is an innovative approach, and according to the author, Przymus, establishing space in the curriculum for immersion in two languages and translanguaging gives every student the opportunity to develop confidence in using their second language as they also receive the same support with their first language. There was an increase in the confidence levels of learners using both languages, having undertaken the 2-1-L2 model.

8. **What:** Reading intervention using technology.

**How:** Leacox and Jackson (2014) look at the impact of learning to read through the medium of **English** with accompanying vocabulary guidance bridging with **Spanish** with a group of learners from the south-east of the United States. This was done using technology and an adult-led reading intervention with children aged 4-8 years. The same story was read to two groups (one with technology intervention, and one without) several times over a period of one week.

**Impact:** In the cohort of learners who received the technology intervention, there was better performance in terms of vocabulary acquisition than in the cohort receiving the adult-led reading intervention. However, because the technology intervention package contained a number of different teaching strategies, it was not possible to prove which features were most effective (e.g. expanded definitions, verbal repetition or Spanish bridging).

The authors argue that offering opportunities to use the new vocabulary consistently supports the learning of words and that a child's first language promotes the acquisition of vocabulary in a second language when undertaking e-book reading tasks. When there is a concept with a strong label connection in a first language, it leads to easier acquisition of the label in the second language.

**Conclusions: The effectiveness of introducing and using a language or languages other than the target language at different stages of the learner's education and linguistic journey**

- Although some authors found that mainly using the target language was beneficial in immersion contexts, there is evidence that occasional use of the home language can also be beneficial in order to compare various languages.
- In the evidence it was seen that structuring the use of various languages (in specific sessions or lessons for each language) as well as allocating time for translanguaging, were effective.
- The evidence notes that interventions to develop literacy skills have a positive effect on language acquisition, for example progress in reading skills and metalinguistic awareness. However, this depended on several factors and the type of intervention in question.
- There was some evidence of the benefits of using technology to develop phonological awareness and vocabulary acquisition when learning a language, but it is difficult to identify, based on the evidence available in the studies, which elements of the technology are most effective.

## 2. Effectiveness of introducing and maintaining immersion education for learners of different ages i.e. What are the characteristics of effective provision in terms of early, medium and late immersion education

### Early Immersion Strategies (up to 7 years of age)

12 items of evidence discussed approaches and methods in early immersion education provision.

#### Targeting linguistic competence

1. **What:** Developing literacy skills using a phonics-based intervention programme.

**How:** In Reading (2009), there is a comparison between the English literacy skills of learners aged 5-6 years in a **Spanish** immersion school and in a **French** immersion school. The children did not speak Spanish or French at home. The approach used for the two Spanish and French language immersion groups was a phonics programme which included specific education on developing phonemic awareness, the principles of the alphabet, decoding skills, and vocabulary development.

**Impact:** Learner literacy skills were seen to improve when learning an additional language. The greatest effect seen was that the literacy skills of Spanish learners were better than those of French learners because Spanish orthography was more similar to English (compared to French).

2. **What:** Developing literacy skills: a partnership between the school and the home.

**How:** In a study by Tong et al., (2021), conducted in South China, parents were encouraged to practice speaking, listening, reading and writing skills in English with their 6-7 year old children. **Mandarin** was the language of the home. These literacy activities were aligned with the curriculum.

**Impact of:** An improvement was seen in the learners' literacy standards and their motivation to continue learning English improved as a result of the intervention.

3. **What:** Developing oracy skills in a nursery school context, based on a systematic review by Wang (2021).

**How:** In reviewing evidence from seven studies looking at how to support the development of young children's oracy in early immersion (**English** was the target language), Wang notes that the following methods are useful in developing young children's oral skills:

- a language instruction method that integrates spoken and written language (more beneficial than oral language instruction only);
- vocabulary intervention;
- opportunities to undertake oral and literacy activities.

**Impact:** It was seen that the learners' phonological and oral proficiency skills had improved after the interventions. In one of the studies, the focus was on the structure of the instruction, and it was seen that learners improved their oral proficiency in classes where educators gave them more opportunities to participate in oral and literacy activities. This method of acquiring language must be combined with other methods such as separate language teaching blocks, effective teacher-learner interaction, and professional development for staff.



**4. What:** Interventions to support oracy.

**How:** A study by Schwarz et al. (2020) considers interventions to support the oracy of young learners, aged 4-6, in Arabic early immersion contexts in Iran. Their study notes that strategies such as the use of repetition and specific requests to use Arabic in the classroom have an impact on the linguistic skills of the learners. It is also noted that teacher mediated socio-dramatic play has increased children's use of Arabic in the classroom. As part of this method, the children led on the play method, and the teacher used Arabic during role play with the learners.

**Impact:** There was an increase in the use of the target language by learners in the classroom.

**5. What:** Books for children in their home language containing specific vocabulary in the target language.

**How:** The study by Read et al. (2020) explores how looking at books written in the learners' home language, but which included code-switching to the target language, supported learners aged 2-5 to acquire new vocabulary. The context in this case was a setting where learners either acquired **English** at school, and spoke **Spanish** at home, or acquired Spanish at school, and spoke English at home. The study was set in a metropolitan area in the west of the United States of America. The families of learners noted that they were exposed to the second language for 10-56 hours a week.

**Impact:** Immersion learners were more likely to acquire new vocabulary using the books that included code-switching to the target language, than they were through reading books in the target language alone. The authors suggest that story books containing code-switching should be read as part of the education for bilingual speakers, to increase the exposure of their languages within the classroom.

## Classroom strategies

6. **What:** Differentiated teaching – providing opportunities to practice the target language.

**How:** Hickey (2007) looks at children aged 3 to 5 in Ireland and the method of grouping L1 and L2 **Irish** learners in order to increase the social use of the target language (the minority language). Analysis of the linguistic networks found in these groups showed that the target language was often not used socially, with learners choosing to speak English with each other.

**Impact:** Hickey (2007) concludes that there is a need to provide opportunities for young children to be able to use the minority language in groups of L1 speakers only, (as well as providing opportunities for L2 children to integrate) because mixing both languages has a detrimental effect on the social use of the Irish language.

7. **What:** A study on the acquisition of L1 and L2 amongst nursery children.

**How:** Bergström et al. (2016) compares the English immersion programme and conventional L2 English teaching programme over a period of 2.5 years. The children were aged 2 to 6 and lived in Germany.

**Impact:** No detrimental effect was found on the children's first language development as a result of the immersion. All results of linguistic measures from the L2 immersion group (English) were better than the group receiving conventional English L2 education. The differences between the two cohorts of learners in their receptive skills, namely understanding vocabulary and sentences, were bigger than the differences seen in the production measures. The authors found that children in the immersion group produced more words than the children in the conventional teaching group after 20 months, but no differences were observed between these groups after 31 months.

8. **What:** The standard of teacher talk in the classroom and the oral ability of dual language learners.

**How:** Kane et al. (2023) studied the relationship between the standard of teacher-talk in the classroom and the oral ability of dual language learners (**Spanish** and **English**) aged 4-6. The study was set in Florida, in the United States. Teachers tended to use two specific types of teacher talk:

- giving directions, and
- contextualised language.

**Impact:** Although it was noted that there is evidence the target language was used in lessons, these types of target language are not of high quality as they do not allow the speaker to expand on the subject discussed. The article notes that teachers need more professional development in high-quality language use in dual learner classes, for teacher talk to be an effective method.

9. **What:** Explicit instruction.

**How:** Yeung et al. (2019) discuss explicit instruction and the significant impact of using this approach with learners aged 4-6 in Hong Kong over an 8-week period. These learners were from **Chinese** speaking families, and were first immersed in **English**, in order to prepare them for education in both languages. Features of explicit instruction in the study in question were to focus on four words in the target language in each session. The new words presented were unfamiliar to the learners but were easy to explain, that is they were not abstract words. To support the sessions introducing the new vocabulary, there were extended activities on the target words, and the use of story books as a context for learning.

**Impact:** Progress was seen in expressive and receptive vocabulary as well as phonological awareness among these learners as a result of the intervention. The authors state that practitioners should focus more on vocabulary development and use methods such as explicit instruction.

**10. What:** The role of technology in assisting language development.

**How:** The focus of the study by Outhwaite et al., (2020) was the benefits of technology programmes supporting immersion, focusing on developing the maths skills of 5 to 6-year-olds in Brazil. Learners spoke **Brazilian Portuguese** as their home language, and they received education through immersion in **English**.

A maths app was used to provide child-focussed one-to-one instruction using interactive pictures, sound and animation. The guidance provided clear and consistent objectives, instructions and formative feedback to all users. The app was available in the children's two languages (L1 – Brazilian Portuguese, L2 – English). Learners worked through the apps with headphones individually, at their own pace, repeating instructions and activities as often as needed.

**Impact:** There were significant gains in the learners' maths skills after 10 weeks of the intervention in both languages. However, there were greater gains in the development of maths skills among learners instructed in Brazilian Portuguese than those instructed in English. The authors suggest that the learners' level of linguistic competence must be sufficient to be able to deal with maths instructions.

## Educator characteristics

11. **What:** Teachers' pedagogy approaches to teaching learners from diverse home languages.

**How:** A study by Hickey et al. (2013) focusses on the pedagogy methods of cylohoedd meithrin teachers across Wales and notes that two main issues need to be considered, namely immersion methodology, and the differentiation of teaching based on the specific needs of learners within this methodology. Their assessment of the effectiveness of the immersion approach was based on the views of educators.

**Impact:** The authors note that there is a need to look again at immersion pedagogy training and how to increase the use of **Welsh** in the classroom. They suggest that the training needs to include strategies for differentiated teaching (e.g. how much of the target language to use when giving instruction) to maintain the first language and immersion in the second language.

In terms of only using the target language, the authors note the need to address educators' beliefs and concerns about the welfare of young children, given the reservations expressed by some educators about only using the target language. According to the authors, only when those concerns are alleviated by experienced educators can understanding of the target language in pre-school settings and other methods of supporting expression to help children find meaning be discussed.

Also, reference is made to grouping learners according to ability in the study. Based on the research, the authors conclude that flexible grouping to stretch the children linguistically can support learner development.

**12. What:** Key issues and policy considerations for immersion education in the early years.

**How:** Hickey and Mejía (2014) present a summary of effective methods and approaches internationally context in terms of a monolingual and bilingual immersion education, including:

- Training for staff in introducing the Vocabulary, Oral, Language, and Academic Readiness (VOLAR) programme, which improves the language skills of young learners with language impairment;
- Training for educators on effective use of input in the target language in the classroom.

**Impact:** Based on the international context, the authors argue that the most significant challenge for the immersion education sector is to train new educators in immersion methodologies, in order to support prospective educators to provide appropriate activities to develop the children's language acquisition. Evidence shows that:

- staff providing immersion education in the early years must be trained to be flexible when planning tasks in order to differentiate according to the young learners' abilities,
- educators must promote the target language as a social medium in the classroom.

## Late Immersion Strategies (after 7 years of age)

Nine items of evidence discussed late immersion education provision.

### Targeting linguistic competence

1. **What:** Learning to read in the two languages.

**How:** The Costa and Guasti study (2021) looks at the **Italian** reading performance of learners aged 6-11 (in three different age categories: mean age of group 1 = 6-7 years, group 2 = 8-9 years old, group 3 = 10-11 years old) in two schools in Milan and Rome, providing dual immersion education in English and Italian, and Italian-only education. English immersion programmes were compared with Italian only control programmes.

**Impact:** The results show that bilingual children receiving dual immersion education in Italian and English were not less proficient in Italian than children in the Italian-only school. There was also an improvement in the English language skills of the dual immersion education group across all age groups, and a correlation between their Italian and English reading skills. The authors conclude that introducing reading material in both languages simultaneously helps support bilingual literacy in dual immersion education.

2. **What:** Acquisition of reading skills in two languages.

**How:** A study by Berens et al. (2013) explores the impact of immersion on reading skills acquisition in two languages for 7 to 9-year-old learners in the United States. The learners, who either spoke **English** or **Spanish** at home, attended three different types of education:

- (a) Spanish and English dual immersion education 50:50,
- (b) Spanish-English dual immersion education 90:10,
- (c) English only education (learners in this group only spoke English at home).

**Impact:** Progress was seen in the reading skills of bilingual children who were learning in a dual-language learning context. Bilingual children who only spoke English at home who attended a dual language Spanish-English school with a maximum of 50 per cent of their education in English, performed just as well and even better on English reading tasks than their English only peers, with 100 per cent of instruction in their English only teaching context. Learners from the bilingual 90:10 education had performed better in reading and general language tasks in Spanish than 50:50 learners. However, the authors argue that the 50:50 education had led to a more balanced acquisition in both languages.

3. **What:** Supporting learning to read with an online programme.

**How:** Mak et al. (2017) looks at a programme focusing on supporting learning to read with an online programme for 6 to 7-year-old learners who spoke **Chinese** at home in Hong Kong. The programme 'A Balanced Reading Approach for Children Always Designed to Achieve Best Results for All' (ABRA) was being delivered through the medium of English to support the acquisition of **English** as a second language in Hong Kong. ABRA is associated with phonics in the school curriculum and includes textbooks on subjects such as body parts, animals and numbers.

**Impact:** After learners took part in the ABRA programme, significant progress was seen in their ability to link phonemes and graphemes, to segment phonemes, and in their nonsense words fluency. The authors suggest that improving phonological skills supports success in learning English as a second language.



**4. What:** The importance of reading in language immersion.

**How:** In their review of 32 research papers, Graham et al. (2022) presumed that being taught to read improves the reading skills of younger learners more than older learners. Their work is based on research relating to emerging bilingual learners (in **English** and **Spanish** dual immersion education). In the review, 38 different methods or comparisons for teaching reading (e.g. phonics instruction, computer instruction, peer reading instruction, whole word reading instruction, social studies-based reading instruction) are presented. In some cases, the interventions in question were introduced to the whole class, sometimes 1:1, sometimes in pairs and sometimes in small groups (the number of learners in these groups is not known).

**Impact:** It was found that the reading score for younger children receiving intervention was lower than the reading score for 9-18 year old learners. The authors conclude that teachers need to consider how to use reading interventions carefully in classrooms where there are emerging bilingual learners, and adapt the interventions to ensure more effective instruction where required.

### **Classroom strategies**

**5. What:** CLIL (Content and Language Integrated Learning) as an effective method of immersing older learners.

**How:** O’Ceallaigh et al. (2017), discusses the experiences of teachers and learners who undertook physical education lessons through the medium of the **Irish** language (L2) in an **English**-medium (L1) school in Ireland. These 9 to 10-year-old learners took part in a series of eight lessons through the medium of Irish.

**Impact:** A qualitative analysis of teachers’ perceptions showed that the learners’ experiences were very positive; the learners gained confidence, and their satisfaction levels and linguistic abilities improved in the various skills. Practitioners also noted that CLIL had given them professional satisfaction in their work.

**6. What:** CLIL in bilingual schools.

**How:** The study by Oattes et al. (2020) discusses the use of the CLIL approach in **Dutch** and **English** bilingual immersion schools in the Netherlands, where English was a different language from the language spoken at home. They focussed this work on 12 to 13-year-old and 14 to 15-year-old learners studying History through the medium of English or Dutch, and the impact of this on the subject test results and subject knowledge.

**Impact:** The research results demonstrated that the younger cohort of learners (aged 12-13) in the mainstream, studying in Dutch, had performed better than those who learnt through the medium of English. However, the opposite is seen in the results of the older cohort (aged 14-15) who had already received two years of CLIL education. The learners in bilingual education (studying History through the medium of English) performed significantly better statistically than those in the mainstream. There is evidence in this research that the performance of learners in bilingual education was also better in a History test through the medium of Dutch. This shows that educating History through the medium of L2 does not have an adverse effect on the learner's L1 use in the subject. The authors conclude that these are the results of CLIL pedagogy as this encourages deep learning.

**7. What:** The impact of the language of instruction on teenage learners (aged 13-16).

**How:** Pathak et al., (2021) examined the impact of providing instruction in L2 on L1 literacy and cognitive skills at two schools in Kathmandu. One of the schools taught through the medium of **English** (L2) and the other in **Nepali** (L1).

**Impact:** The main finding of this study was that the learners who were taught in English performed better than those taught in Nepali across a range of linguistic and cognitive tasks. The authors argue that learners receiving instruction through L2 benefit in terms of developing bilingualism and biliteracy.

**8. What:** Form Focused Intervention: (FFI).

**How:** Research by Ní Dhiorbháin and Ó Duibhir (2016) focusses on Inductive FFI, which means that the teachers provide examples of grammatical structures and then learners discover the rule by themselves. In this context, the 11 to 12-year-old learners attended **Irish** immersion education in Ireland. Over a period of four weeks, the genitive case was taught in an explicit way (students being able to clearly repeat the rule orally and in writing) and discussions were held regarding the form with the educator and among peers.

**Impact:** There is evidence in this research that explicit and inductive approaches help immersion learners to develop and remember their understanding of grammatical rules. Attention is also given to the fact that the social nature of this approach is beneficial to learners as knowledge about rules is generated together with peers and the teacher.

**9. What:** Using virtual reality technology in immersion.

**How:** Tai and Chen (2021) discuss the benefits of using virtual reality technology when immersing **English** learners. The technology programme aimed to improve listening skills, with the instruction and input into the programme delivered in the target language. A cohort of English learners aged 12-13 in north Taiwan received a virtual reality language education intervention via the Mondly app. In the app, reality is imitated, for example, in a restaurant, hospital or hotel. The app is able to recognise speech automatically to enable the learners to interact in English with virtual characters and receive feedback immediately. The control group watched a series of videos on a computer rather than being immersed in technology.

**Impact:** It was noticed that those following the virtual reality intervention had scored better in terms of their listening comprehension and retention, compared with the control group. According to the authors, virtual reality technology encourages a sense of presence among users, which can improve listening and comprehension skills among English learners.

## Conclusions: Early Immersion and Late Immersion Strategies

### Early Immersion

- There is evidence in the literature that using bilingual books and code switching in reading material can support learners' linguistic development in early immersion education in the target language. In addition, 1:1 reading time between adults and the young learners is beneficial, for example, between children and their parents.
- The evidence examined for this study notes that early immersion learners should be educated in small groups. When teaching in small groups, the specific needs of learners can be identified, and teachers can differentiate on the basis of those needs.
- It was observed that teacher talk affected the learners' oral ability, and that using the target language effectively (by repeating, confirming, detailing and elaborating) predicts learners' linguistic outcomes. It was noted that technology programmes can support reading skills development in immersion education, which can assist teachers where resources are limited.
- There is strong suggestion in the evidence that using the target language on its own in immersion education is not enough: the teachers' use of the target language must also be meaningful. That is, teachers should use a language which gives learners the opportunity to extend and elaborate when speaking the target language, rather than just giving instructions in the target language.

## Late Immersion

- Extensive evidence was found that methods targeting reading skills support language acquisition in late immersion contexts. Specifically, methods to teach reading through phonics can help learners to link phoneme and graphemes and segment phonemes.
- There is a strong argument in the evidence examined for this study that introducing two languages simultaneously in reading material is beneficial.
- The evidence notes the importance of recognising learners' linguistic context when considering linguistic development in late immersion contexts, and that this extends to considering the learners' individual needs.
- The evidence reports that CLIL is an effective tool to develop learner confidence, improve knowledge about subjects other than the target language and to develop linguistic skills. However, the evidence does not provide much detail about the exact skills.
- It was seen in the studies that communication methods helped learners to acquire the target language. There was evidence that small groups encouraged learners to use the target language more often. By using an inductive and explicit approach (learners finding out grammatical structure rules for themselves), learners were equipped to work with peers to better develop and remember grammatical rules.
- There is evidence to suggest that using games or technology to assist with learning a language or languages can be effective. Virtual reality technology, specifically, can create a sense of presence which reinforces the immersion experience.

### 3. Approaches to deal with a range of linguistic backgrounds and previous linguistic experiences among cohorts or groups of learners

Five items of evidence discussed the situation in immersion classes where the learners came from migration backgrounds, and other varied linguistic backgrounds.

#### Targeting linguistic competence

1. **What:** The impact of immersion education on the literacy development of immigrants.

**How:** Research by Poarch and Bialystok (2017) focused specifically on developing the literacy of learners (8-16 years of age) in a target language (**German**), not spoken at home, coming from linguistic backgrounds with different linguistic experiences. In a review of the international literature, they discuss the impact of immersion education on the literacy development of immigrants. They argue that German policy makers need to support learners who have migrated to the country to support their heritage language as well as the country's majority language.

**Impact:** Supporting learners to maintain their heritage language is the approach in question which, according to the authors, supports the immersion of learners. According to their assessment of the international context, when education systems promote literacy in the native language, they show that they regard those languages as valuable qualities.

## 2. **What:** Developing metalinguistic awareness.

**How:** Mady's (2015) research hypothesised that a method focusing on developing meta-linguistic awareness would affect the linguistic competence of migrants to Canada who learned **English** and **French** in immersion education. Learners in this research were aged 11-12 and had been immersed for 6 years when the data was collected.

**Impact:** Although the cohort of migrants performed better in language tests (which measured various linguistic skills) than their Canadian counterparts, there was no evidence of a positive correlation between the metalinguistic awareness of the learners who had migrated with the higher scores. That is, the learners did not score better across linguistic skills if their score for linguistic awareness was higher. It is assumed that other contextual factors influence linguistic ability in the case of this data.

## Classroom strategies

### 3. **What:** Teaching strategies: supporting well-being and the use of the learner's home languages.

**How:** Reese et al. (2018) interviewed **Catalan** immersion programme educators and observed immigrants who were learning in Catalan immersion programmes. Teaching strategies such as supporting emotional well-being and the use of learners' home languages are addressed in this research. The purpose of the research was to measure the extent to which teachers felt that immigrants had settled into the schools to the extent they were using the language. Learners were immersed in various ways at a 'rapid' pace, e.g.,

- 'aula d'acollida' (reception/welcome class) takes learners out of the classroom to provide specific language lessons during the week,
- and a 'desdoblament' strategy, which is to place two educators in a class to give additional support to newcomers.

**Impact:** It was found that teachers placed an emphasis on social inclusion (i.e. incorporating learners into school and community structures). This meant they were less likely to use learners' home languages in these education institutions. Based on the evidence, these authors argue that more education is needed about different cultures in immersion institutions that educate immigrants, and that awareness of diverse cultures and languages can contribute to social inclusion beyond the school.

4. **What:** Different methods of integrating migrants into compulsory education systems.

**How:** Crul et al. (2019) present a synthesis of policy literature and documentation about Syrian migrants in Sweden, Germany, Greece, Lebanon and Turkey. The countries concerned were integrating Syrian migrants into their compulsory education systems using different methods, and according to the authors, with varying levels of success, for example:

**Impact:**

1. An intensive immersion method (Sweden), which is a relatively short intensive immersion period leading to learners being mainstreamed according to learners' needs. The research suggests that this immersion system works well.
2. Continued support in the form of specific linguistic support over a period of time after the initial immersion period. The research shows that this approach is necessary to support migrants when attending compulsory education.

This review found that moving immigrant learners to the mainstream early in their education journey, as is happening in Sweden, is a way of avoiding social isolation.

5. **What:** Grouping learners in classes according to linguistic background.

**How:** Research by Robinson and Sorace (2018) found that grouping learners in classes according to linguistic background can affect learners' ability to acquire **Spanish** as a second language in Scotland. The research participants were a combination of recent immigrants to Edinburgh, who did not speak English at home, and native English speakers, in language lessons.

**Impact:** Groups where 95 per cent of learners were monolingual English speakers (the homogenous group) did not perform as well in DCCS (Dimensional Change Card Sorting Task) tasks as groups where 50 per cent of learners were multilingual (the heterogeneous group), and a high percentage of those were recent migrants to Scotland who had not acquired **English**.

DCCS tasks are used to measure executive function, where learners sort a set of cards according to dimensions, colour and shape. The English-only learners in the heterogeneous group also performed better than their homogenous group counterparts, possibly because they interacted with multilingual learners. The authors claim that combining learners from different linguistic backgrounds can benefit monolingual speakers when learning a second language from scratch.



**Conclusions: Approaches to deal with a range of linguistic backgrounds and previous linguistic experiences among cohorts or groups of learners**

- The evidence examined in this review about using various languages in immersion classes where learners come from different language backgrounds show that metalinguistic awareness does not lead to higher ability in the target language.
- It was seen that using the learner's home language was important to show the value of those household languages. There was a suggestion that intercultural education was required to promote social inclusion and that moving immigrants to the mainstream early on could help with this. However, the link between seeing value in languages and the effective acquisition of linguistic competence was unclear.
- The studies include evidence that mixing monolingual and multilingual groups has a positive effect on the linguistic ability of all learners, not just migrants.

## 4. Specific considerations that merit attention in relation to Additional Learning Needs (ALN) and immersion education provision

Seven items of evidence considered additional learning needs.

### Targeting linguistic competence

1. **What:** Vocabulary acquisition interventions in joint reading (emerging bilingual learners 3-5 years of age with ALN in the early years) based on a systematic review of 19 research studies by Kong and Hurless (2021). The 19 studies reviewed describe a range of methods for teaching new vocabulary.

**How:** The most frequently reported methods were word definitions (i.e. explaining the definition of the words or pronouncing the words) and highlighting the words through repetition. Another method was to provide visual and gestural cues (such as pointing to the picture and providing visual or gestural cues), communication stimuli / responses (including taking turns in conversation, expanding / expatiating, modelling, and giving feedback to learner responses), and semantic connection (which linked new concepts to familiar concepts).

**Impact:** The authors conclude that all vocabulary interventions generally support the development of ALN learners, and that embedding an additional element of the instruction (such as an interactive discussion asking children to respond specifically) accelerates their linguistic development.

- 2. What:** The Przymus and Alvarado study (2019) discusses the use of translanguaging when recounting stories as a method to assess ALN in emerging bilingual learners in the United States of America.

**How:** The learners in the study were in year 8 and attended **English-Spanish** dual immersion secondary school and spoke **Spanish, Tigrinya, and Tzotzil** at home. As part of the study, learners had the opportunity to translanguage when re-telling a story using English, Spanish or any other language they spoke at home.

**Impact:** It is concluded that giving individuals opportunities to use their full linguistic repertoire enables them to receive a fair ALN assessment. Including translanguaging in the assessment enabled learners to use a more comprehensive repertoire, leading to more accurate data on participants' language skills in order to be able to determine whether they had specific ALN.

Przymus and Alvarado (2019) highlights considerations when assessing ALN in a bilingual population and recommends further work on creating standardised assessments for non-monolingual populations.

- 3. What:** Intervention that targets understanding when reading in the target language.

**How:** Sanabria et al. (2022) consider the 'EMBRACE' programme (Enhanced Moved by Reading to Accelerate Comprehension in English) with children aged 11-14 who are in dual language immersion in the USA. Previous evidence showed that reading difficulties are common in children with language impairment.

The EMBRACE programme is intended to specifically target understanding, particularly when learning to read in a second language. As part of the intervention, learners move images on an iPad to demonstrate comprehension of stories.

**Impact:** The study results showed that there were no significant differences in the accuracy of reading comprehension after receiving the intervention, but that there was a positive impact on children with poor reading skills, particularly when undertaking easier topics.

4. **What:** A study by Wise et al. (2015) considers phonological awareness training for at-risk readers in the early French immersion context in Canada.

**How:** The experimental group received phonological awareness training as well as a letter-sound correspondence instruction twice a week for eighteen weeks. As part of the intervention, learners became aware that sentences contain words, words contain syllables, and syllables are made of individual sounds or phonemes. This sequence increased children's awareness of speech units, and over time they learned to produce and manipulate them.

**Impact:** Significant differences were observed for the experimental group immediately after the intervention, and two years later, suggesting that interventions relating to phonics can address the lack of phonics awareness for at-risk readers in an early immersion context.

### **Classroom strategies**

5. **What:** Landry et al. (2019) present a study on a method of grouping young children in early-stage immersion education (Spanish and English) in the United States of America and the impact this has on the social and behavioural outcomes of ALN learners.

**How:** 'Preparing Pequeños' is a cognitive instruction programme for small, targeted groups. The programme is a **Spanish** translation of a series of literacy activities that have already been approved to develop language skills. The reading skills of the children were categorised as weak and the authors emphasise the importance of being able to meet the demand in terms of the individual needs of children with ALN within a dual immersion class.

**Impact:** The programme was seen to have a positive impact on the learners involved. The results of the experiment showed the importance of small group use in dual immersion contexts in the early years, and that this method is not being used adequately.

The results also show that children who had taken part in the 'Preparing Pequeños' programme improved their socio-emotional, language and literacy skills due to the intervention.

The authors note that the evidence suggests that the use of small groups in dual immersion with children with weak reading skills is an effective way of raising standards. The experiment also shows the positive impact of training in programmes such as 'Preparing Pequeños' on the standard of teaching. For example, more specific instruction was being used in small groups and educators were able to support the children using scaffolding (supporting a learner with a task and withdrawing support gradually).

- 6. What:** A study by Calhoun et al. (2007) looks at / considers the effectiveness of a peer-mediated programme on the acquisition of reading skills for 6-7 year olds in a two-way bilingual classroom (early Spanish / English immersion). The study was set in the United States of America.

**How:** The study included children with ALN in the sample who received PALS ('Peer Assisted Learning Strategies'), a strategy that is recommended to supplement core reading programmes. As part of this method, teachers taught children how to work together on peer-mediated activities which include storytelling sessions with sounds and words.

**Impact:** The results of the intervention show that the use of PALS has been effective in helping teachers to adapt instruction to different groups, including children with ALN. PALS had led to an increase in learners' phoneme segmentation fluency, nonsense words fluency, and the fluency of reading out loud.

## Educator characteristics

7. **What:** Nic Aindriú et al. (2023) discuss the design and content of an online professional development course for educators in Ireland. The authors note that the educators of children with ALN in immersion education find it difficult to meet the learning needs of those children due to a lack of assessments, interventions and resources in the language of provision.

**How:** As part of the study, the training was conducted with a group of educators, and the results of the provision were then reported. There were three main elements to the course, covering theoretical information regarding bilingualism and the acquisition of a second language, appropriate assessments for children learning a second language, and strategies and interventions to support educators to deliver content appropriately in a bilingual or immersion context.

The course included the following interventions, amongst others:

- Lesson reflection sessions
- Creating action plans for individual learners
- Role play tasks
- Observations
- Speech and language sample analysis
- Development of a shared library of resources

**Impact:** The educators' feedback towards the course was positive but lack of time was a challenge for all of them. All participants felt that each module was effective in developing learners' linguistic ability, and that the most useful elements were realistic ideas for implementing educational strategies.

**Conclusions: Particular issues that merit attention in terms of additional learning needs and immersion education provision**

- There is scope to support students with ALN in immersion classes, and small group teaching and encouraging collaboration between peers are effective ways of improving linguistic skills, bearing in mind the learner's specific ALN.
- Translanguaging was seen to assist in identifying and assessing multilingual learners with ALN.
- The evidence shows that phonics intervention can address the lack of phonics awareness.

## Footnotes

[1] Estyn. (2022). *Welsh Immersion Education - Strategies and approaches to support 3 to 11-year-old learners*.

[2] Registered non-maintained nursery settings which are approved and funded by the local authority, must adopt a curriculum which meets the legal requirements of Curriculum for Wales. In line with the National Minimum Standards for Regulated Childcare, non-funded settings are also encouraged to incorporate the curriculum into their work: (National Minimum Standards for regulated childcare).

[3] Williams, C. (2008). Medium and Late Stage Linguistic Immersion: Established Models and those Appearing in Wales, *Creating a Bilingual Wales: The role of the Welsh Language in Education*. *Institute of Welsh Affairs*. pp. 17-29.



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