y ganolfan cynllunio iaith
welsh centre for language planning

Comparison of Language Immersion Models for Pupils

Final Report

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welsh centre for language planning

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Executive Summary

Project aim

1. The aim of this Bòrd na Gàidhlig funded project has been to review the literature and guidance on good practice in the immersion classroom teaching and learning of minority languages, from pre-school to high school, both internationally and in Scotland, such as would be applicable to the promotion of Scots Gaelic in Scotland.

2. The full report presents, for comparison with Gaelic medium education as it has developed hitherto in Scotland, a synopsis of the immersion models in Aotearoa/New Zealand, Hawai'i, Canada and the United States. In the European context, the report focuses upon the bilingual education models in Wales, Ireland, Catalonia and The Basque Autonomous Community. It also draws upon the research literature more widely to address each of the issues identified in the original research brief.

Comparing 'models' of immersion education

'Second language' immersion

3. In Canada, early immersion usually involves 100% French for 4-5 year olds in Kindergarten and 5-7 year olds in grade 1. One period of English language arts is introduced in grade 2 (at age 6-8), grade 3 (age 7-9) or sometimes as late as grade 4 when children are 8-10 years old. By grade 5 (age 9-11) and grade 6 (age 10 -12) the instructional time is divided equally between the two languages and the amount of instructional time through French usually declines to about 40% in grade 7 (age 11-13), grade 8 (age 12-14) and grade 9 (age 13-15) with further reduction at the high school level as a result of a greater variety of course offerings in English than in French. French immersion programmes in Canada are fully bilingual in as much as the teaching staff are all bilingual, both French and English are used as the languages of instruction in a structured and organised manner and they aim to develop fully bilingual and biliterate pupils. The pupils in French 'second language immersion' are L2 learners of the target immersion language and classes are therefore more homogeneous than the other minority language contexts reviewed.

4. The reviews of the Canadian model and other models of 'second language' immersion internationally have identified the following three major positive outcomes:

    1. Immersion students surpass mainstream students in their acquisition of a second language.
    2. After approximately six years of schooling, immersion students have caught up and, in the case of early total immersion pupils, go on to exceed the first language attainment of their monolingual peers.
    3. Early total immersion pupils gain a second language without any negative effect upon their performance in their other curriculum subjects.

Immersion revitalization bilingual education

Māori

5. It is a feature of Māori-medium education that 'full immersion' (Level 1: 81% - 100% Māori) is the main form of Māori-medium provision. Furthermore, the majority of Level 1 full immersion programmes exist as separate, whole-school Kura Kaupapa Māori (rather than units or streams in English-medium schools). Research on Māori-medium education confirm the general findings of immersion education elsewhere, that it is the full immersion (81% - 100%) programmes that are the most successful and that partial programmes which teach more than 51% - 80% (Level 2) in the target language can also have positive results. Consequently, it is argued that Māori-medium education be concentrated in the Level 1 and Level 2 forms of provision rather than continuing to expand provision generally with lower Level 3 (31 – 50% Māori) and Level 4 (12 – 30% Māori) of bilingual education.

(Immersion in) Developmental Bilingual Education

Scottish Gaelic

6. In Scotland, the development of Gaelic Medium Education (GME) has been based on a 'language immersion' approach to teaching and learning through the medium of a second and heritage language. In Gaelic-medium provision, learning and teaching is wholly through Gaelic during the **total immersion phase** during pre-school education and from P1 to P3. English language is then gradually introduced through the medium of Gaelic in the **immersion phase** (around P2/3), with Gaelic remaining the predominant language of the classroom in all areas of the primary curriculum.

7. At secondary level, there is a much more disjointed picture with provision varying greatly from school to school and between local authorities. Whilst 46 secondary schools provide Gaelic language teaching in some form, only 14 deliver other

subjects through the medium of Gaelic. These subjects are mainly available in S1 and S2 and only a few schools offer geography, history, mathematics and modern studies right through to S4.

Welsh

8. In Wales, Welsh-medium preschools and primary schools are environments in which all pupils in the Foundation Phase (age 3-7) experience all areas of learning through the medium of Welsh. In Welsh-medium primary schools, Welsh is also the main medium of instruction for pupils aged 7-11, with at least 70% of the curriculum being taught through the medium of Welsh. English is introduced formally in Year 3 when pupils are 7-8 years old and taught as a subject through the medium of English. The remainder of the primary curriculum is delivered in Welsh. It is expected that all pupils will be able to transfer to Welsh-medium secondary schools, regardless of the children's home language. It is also expected that by the end of primary school, pupils will have achieved an equivalent standard in English as those pupils educated in English medium schools.

9. **Welsh-medium secondary schools** typically teach all subjects apart from English through the medium of Welsh although some schools may introduce English terminology in one or two subjects. There are also three types of bilingual secondary schools: **Category A bilingual** schools teach at least 80% of subjects (apart from English and Welsh) through the medium of Welsh to all pupils. In these schools one or two subjects may be taught to some pupils through the medium of English or both languages. **Category B and C bilingual schools** have Welsh medium 'streams' teaching at least 80% or 50 – 79% of subjects respectively alongside English medium streams.

Irish

10. In the *Gaeltacht*, primary schools located in areas of 70%+ Irish speakers typically conduct most classes through the medium of Irish. A small number of classes are taught through the medium of English in schools located in 50% - 69% Irish speaking areas. In areas with a lower percentage of Irish speakers, primary schools typically teach around half the curriculum either primarily or totally through the medium of English. As regards the medium of instruction in secondary school in the *Gaeltacht*, teaching through the medium of Irish is considered to be in a 'state of crisis'. Many schools in areas of less than 49% Irish speakers teach through English only or primarily through the medium of English. Even in post-primary schools located in strong *Gaeltacht* areas (70%+ Irish speakers) over 10% of the teaching is through the medium of English in some of the traditional subjects.

11. Outwith the *Gaeltacht*, the majority of all-Irish schools employ an early total immersion policy for the first year of Junior Infants (age 4 – 5). English language arts are introduced in Senior Infants when the pupils are aged 5 – 6. This is earlier than the introduction of English in the Scottish Gaelic and Welsh models but echoes the practice in, for example, Swedish immersion in Finland. The remaining 85% of instruction is conducted through the medium of Irish and this 'high language intensity' model of immersion, is consistent across all the all-Irish immersion schools and maintained throughout primary and secondary education. A totally Irish early immersion approach is employed in Irish-medium preschools in all parts of the Republic of Ireland.

Catalan in Catalonia

12. Following its Statute of Autonomy in 1979 the government of Catalonia implemented an optional Linguistic Immersion Programme for children aged 3 – 12. Since 1983 Catalan has become a compulsory medium of education at all levels. Official figures indicate that in the primary school sector, over 90% of primary school classes are taught in Catalan and 49% of secondary school classes are also Catalan medium. The dominance of Catalan as the medium of compulsory education has not been without its detractors, although it would appear that there is far less opposition to this model within Catalonia itself than in Castilian-speaking Spain.

Basque in the Basque Autonomous Community (BAC)

13. In the BAC, three main models of primary and secondary education have emerged as a result of reinstating the Basque language's status in the BAC.

    - **Model A** is intended for native Spanish speakers who chose to be educated in Spanish. Basque is taught as a subject for 3-5 hours a week (approximately 15% of classroom time). This model does not encourage pupils to learn more than a minimal amount of Basque.

    - In **Model B** both Basque and Spanish are taught as subjects and used as the medium of education for roughly 50% of school time.

    - **Model D** was originally established as a language maintenance programme for native speakers of Basque with Basque being the sole medium of education (75% of school time) and Spanish and a foreign language, typically English, being taught as subjects (25%).

14. Over the past thirty years, there has been a phenomenal increase in the number of Basque-medium primary and secondary school provision so that Model D is now the most popular option (amounting to almost 60% of provision) and Model A accounts for just over 10% of education in the primary and secondary sectors.

What models have been most effective in producing and maintaining fluent speakers of a minority language?

15. The models which are consistently shown in the research literature to be the most effective in producing fluent speakers of a minority language are those which implement the following:

    - a total immersion experience in the minority language for both L1 and L2 children during pre-school;

    - a total immersion experience in the minority language for primary pupils until at least seven or eight years old;

    - continue to provide a predominantly minority language medium education throughout the remaining stages of compulsory education. Experience in other minority language communities suggests that at least 70% of the curriculum subjects needs to be taught through the medium of the minority language;

    - form strong ties with the minority language community outwith the school and draw upon parental and community members' minority language and culture expertise to support the learning needs of pupils.

16. The educational models which are most effective in producing the largest numbers of minority language speakers are those such as Catalonia and the Basque Autonomous Community who have implemented an early total immersion approach during the early years followed by a predominantly minority language medium approach throughout the entire (public and private) school system.

17. The extent to which schools can strengthen a minority language and culture effectively depends upon the extent to which a school integrates the minority language and culture in all its curricular and extra-curricular work. Effective immersion programmes emphasise the integration of all the pupils within the total school programme. Minority language streams or units located within mainstream schools are perceived to be less effective than 'whole' schools at creating extensive opportunities for the use of the minority language outwith the classroom and so create opportunities for language use which foster greater levels of fluency among pupils, particularly L2 learners of the minority language whose opportunities to use the language are largely restricted to the school environment.

Catering for variation in pupil entry language abilities and linguistic backgrounds

18. Diversity is a feature of contemporary minority language medium and immersion schooling. More recent research has emphasised that children do not enter school as cohorts with static and homogeneous language repertoires. Consequently, their language practices cannot be added to in linear fashion. Such research argues that what is needed today are practices firmly rooted in the multilingual and multimodal language and literacy practices of children in schools of the twenty-first century. Such is the challenge which confronts minority language medium education throughout the world as well as in Scotland.

Pupils with additional learning needs

19. It can often be assumed by that immersion and minority language medium education is not appropriate for children who have additional educational support needs and that such children are best educated within monolingual mainstream provision. However, research evidence suggests that immersion programmes are suitable for almost all children, including those with lower educational abilities and learning disabilities and that that children from diverse backgrounds should not be forced out of immersion programmes, as they would do no better in the English mainstream. Pupils with different language abilities and language support needs will typically require additional support to develop their knowledge of the target language, as the Scottish *Curriculum for Excellence* acknowledges. The full report provides an example from Aotearoa/New Zealand, of a series of language programmes called **Kia Puta ai te Reo** that have been designed to support the additional language development needs and assess the language progress of pre-school pupils with different levels of Māori language abilities.

Dealing with 'latecomers'

20. Dealing with those children who arrive 'late' is also an additional challenge for immersion programmes. Such children require support to develop their new language skills as quickly as possible in order to 'catch up' with their classmates. Several language-in-education policies pay attention and assign resources to providing this additional linguistic support to latecomers. Examples from Wales and Catalonia include tailored support both individually and in small groups to pupils who require intensive 'catch up' language immersion. In Wales, this support is provided in designated 'Latecomers Centres' and by teams of *Athrawon Bro* (Community/Area teachers). In Wales, a 'late immersion programme' exists for pupils making the transition to Welsh-medium secondary education. In Catalonia, several initiatives have been developed to address the growing need to support non Castilian/Catalan-speaking in-migrants.

Meeting the needs of both L1 and L2 pupils

21. Having a high proportion of L2 as well as varying numbers of L1 minority language learners in a single classroom is common to all the minority language models reviewed. An increasing number of researchers in Scotland and elsewhere are voicing concern that more attention needs to be paid to the way educators meet and manage the very different needs of first and second language children in minority language immersion settings.

22. Numerous studies of two-way immersion have shown that it is the majority language which often dominates, particularly in interaction between pupils. Research studies consistently show that L1 speakers of a minority language will use more of their minority language when they are grouped with similar children. Such children tend to withdraw, talk less and use less of the minority language (their L1) when L2 speakers dominate in groups. When pupils are put into mixed language groups, there are low levels of minority language use by both kinds of pupils.

23. In many contexts, researchers report concerns with the accuracy of L2 children's acquisition of the minority language. Young L2 children need to be immersed in accurately modelled linguistically rich environments in order to maximise their acquisition of the minority language. Their emerging acquisition of the minority language needs to be carefully scaffolded and related to their L1 knowledge and understanding.

24. In mixed preschool classes, it has been shown that there can be a tendency for teachers to focus on the needs of L2 learners at the expense of children who already have some knowledge of the target language. Some international research provides evidence of pre-school language practices that are not sustained or sophisticated enough to enrich the L1 of L1 children. In addition to the opportunity to support and enrich their language development, L1 children also need support to develop their skills in order to prevent marginalisation and low self-esteem. Grouping minority language students together for mutual support and linguistic stimulation has been found to be important.

25. Research points to the important role parents can play in supporting their child's language development needs. Parents can be encouraged to help their L2 child(ren) learn the minority language and to introduce the minority language in the home. Parents of L1 children can also be encouraged to become involved in helping their children to enrich their L1, both in the home and being involved in L1 language enrichment activities in the pre-school and school setting.

26. Researchers have argued that it is more beneficial to address the needs of different groups of children through different activities than provide a 'lowest common denominator' approach. In many contexts, separation of children according to home language is advocated where possible during pre-school and the early grades of primary. A decision to separate children in this way often causes controversy and is initially regarded as elitist. However, such arrangements become accepted over time when the advantages to each group are demonstrable.

27. It is not always possible to create separate sessions or classes for L1 and L2 children and in such contexts, it is advocated that pupils are grouped with other similar L1 and L2 children for some activities. Also seating arrangements and pair activities can be organised to encourage interaction in the minority language and tailor input for different language children.

28. Research has shown that for most bilingual children, it is cognitively, linguistically and operationally sensible to use both languages. It maximises both linguistic and cognitive resources, and helps achievement and progress. Thus, education that insists on strict boundaries and compartmentalization between languages is now thought to be dated, difficult and unreasonable.

29. 'Translanguaging' is a teaching method widely used in bilingual and multilingual classrooms, particularly in the higher primary grades and post primary education, in which pupils' minority and majority languages are used to complete different stages in a classroom learning activity. Translanguaging in a deliberate a structured way has been found to have the potential to lead to high academic achievement for bilingual pupils because of the way such techniques promotes a deeper and fuller understanding of the subject content and develops sophisticated bilingual language skills.

30. Research in this area also shows quite clearly that L1 and L2 pupils require tailored language study programmes and resources. Responding adequately to the needs of both Gaelic and non-Gaelic speaking pupils requires:

    - appropriate teacher training;
    - L1 and L2 tailored curricula and work organisation;
    - resourcing of extra personnel to allow for regular group work organised according to language ability;
    - collaborating with parents to support their children's language learning.

Introducing and developing literacy skills in two languages

31. In indigenous minority language contexts, literacy for bilinguals typically aims for achieving fluency in reading and writing in two (or more) languages. The **sequential** view of biliteracy holds that literacy in a second language be introduced once a child has developed adequate fluency in speaking, reading and writing in one language. Also, in programmes that follow the sequential model, 'full transition' to reading and writing in the child's second language is only made after the child has oral proficiency in the language to be read.

32. There are, however, also researchers who demonstrate that children can learn to read in two languages **simultaneously** even while they are still developing cognitive-oral skills in a second language. Two influential overviews of biliteracy, concur that literacy in a second language does not necessarily need to be delayed until children have a secure grasp of their first language literacy. Both do argue, however, that literacy development in the first language should continue until it is fully developed, whether literacy in a second language be introduced sequentially or simultaneously.

33. Researchers conclude that, ideally, pupils need to remain in an immersion programme for 8 years (at least 6 yrs) in order to develop their literacy skills fully – shorter programmes typically do not provide students with skills they need, particularly in their second language. Research indicates that developing literacy in two language provides a significant source of cognitive and curriculum advantage for bilinguals which probably helps account for their tendency to consistently equal or outperform their monolingual peers. Research reviews that have evaluated pupils' biliteracy development consistently attest that acquiring literacy in one language will aid the development of literacy in another language and that the skills learned for reading and writing in one language will transfer to reading and writing in a second language, particularly when both languages use a similar writing system as Gaelic and English do.

34. Research on literacy attainment in Gaelic-medium and English-medium education, generally concludes that Gaelic-medium pupils typically perform better than their English-medium peers in English reading and writing in Primary 5, Primary 7 and Secondary 2. However, the same research indicated that by Primary 7, pupils in Gaelic medium had a lower attainment in Gaelic than they did in English, especially in reading.

35. The research on literacy attainment in Gaelic-medium provision is echoed in similar research internationally with regard to the tendency for minority language-medium pupils to equal or surpass their monolingual peers in majority language attainment.

36. Research in many diverse contexts demonstrates that when students are being educated through a minority language or immersed in a second language, then educators at all levels from pre-school onwards and across all subjects of the curriculum need to pay attention to developing student's language and literacy skills in order to deepen their understanding of the subject as well as enriching their language repertoires in general.

37. There is a tendency for the main responsibility for students' language and literacy development to rest with early years and language teachers, whereas it is clear from research that every content lesson needs to be a language lesson as well, with particular attention to expanding students' repertoire of word knowledge, word families and word use.

38. Pre-schools as well as subsequent stages in education need to be 'literacy rich' environments as the *Curriculum for Excellence* states. There is already some good practice in Gaelic medium preschools but research indicates that there is also a need to provide further support to pre-school educators to enrich the Gaelic language and literacy experiences of young children, particularly with Gaelic story reading and other forms of Gaelic literacy.

39. The importance of drawing upon pupils' background knowledge is a principle which is applicable at all stages of a child's education. Research has shown how readers do not make sense of the texts they read by relying solely on the phonemic/graphemic, lexical and syntactic recognition but also draw upon their prior knowledge and their own language and literacy practices. For pupils who are developing their bilingualism, drawing upon their background knowledge is particularly important in order to help them gain understanding of a text when they may have some gaps in their knowledge of textual features.

40. The full report presents the features identified by research to be effective in developing bilingual pupils' reading and writing in both their school languages and refers the reader to examples worth investigating further such as the *balanced literacy workshop method* of reading and writing instruction which combines language and literature-rich authentic activities.

Introducing and developing the majority national language and modern languages

41. The European Commission's Action Plan *Promoting Language Learning and Linguistic Diversity* (2003) promotes the learning of the mother tongue and two other languages (MT + 2) for all citizens. As a consequence of this policy, the compulsory learning of an additional language is happening at an increasingly early stage, with some countries such as Spain and Luxembourg making it mandatory to learn another language in the first year of schooling.

42. The European Union refers to bilingual education in its member states as CLIL (Content and Language Integrated Learning). CLIL is an umbrella term used to describe any type of educational programme in which a 'second', 'foreign' or 'modern' language is used to teach non-linguistic subjects. CLIL does not, therefore, refer to the use of Gaelic in Gaelic-medium education.

43. CLIL programmes typically aim at achieving 'functional competence' in receptive and productive skills rather than native-like fluency, particularly when learning through the target language takes up a low portion of curricular time. Some CLIL programmes do designate a significant proportion of curricular time to teaching through the medium of a foreign language and these programmes can produce very high level of productive and receptive skills as well as teaching subject content to the required standard.

44. At secondary school level, many schools have subject and language teachers working in tandem so that both types of lesson complement each other and so help develop student's language skills in a deliberately structured rather than haphazard way. This approach to language learning is felt to provide a more authentic learning environment in comparison with the more traditional foreign language teaching content which is heavily 'pseudo-real' and fictitious.

45. Research in CLIL contexts affirms that:

- student's first language develops normally despite a significant amount of curricular time being conducted in another language;
- the 'second'/'foreign' language develops better by being used as a language of instruction in non-linguistic subjects;
- content learning is enhanced and not affected negatively by being taught through the medium of student's additional language;
- CLIL education is typically appropriate for all kinds of students.

46. The demonstrably higher levels of proficiency achieved in a foreign/modern language when taught using a CLIL 'partial immersion' approach compared with the traditional method of teaching modern languages, make it worth considering as a dimension of GME.

47. There is a growing number of trilingual models of education in minority language contexts. The full report presents the successful incorporation of a CLIL approach to the teaching of English within its predominantly Basque-medium models of education.

The further development of Gaelic-medium education in Scotland

48. Gaelic-medium education shares many features with other successful models of minority language 'heritage' education and minority language immersion such as an emphasis on early total immersion and maintaining an almost exclusively Gaelic medium delivery of the primary curriculum from P2/3 onwards. The full report also refers to research which has identified numerous examples of good practice in GME provision at all levels.

49. In GME, as in other minority language heritage/immersion contexts there is an ongoing need for:
    - continual development of GM teaching and learning materials and resources;
    - continual and increased training of well qualified GM preschool practitioners and primary and secondary education teachers with regard to developing:
        - their own fluency in Gaelic;
        - their understanding of minority language immersion teaching;
        - their ability, even as subject teachers, to teach in ways that develop their pupils' bilingual language and literacy repertoires effectively;
    - increased opportunities for GM practitioners and teachers to learn from each other and share resources.

50. As is the case in other minority language contexts, the 'models' of minority language medium education as they are defined and prescribed in policy documents are often at odds with the reality of current classroom practice. In Scotland, as elsewhere, there is a growing awareness of a need to focus on classroom practices, identify best practice and share that best practice among practitioners and teachers through CPD, ITE and national guidelines.

51. This report has considered some of the most pressing issues for GM pedagogy such as: meeting the different needs of L1 and L2 learners and identifying effective classroom practices for developing and enriching pupils' bilingual language and literacy skills at all levels and across the curriculum. Strategies for addressing these issues are provided in the full report.

52. The research on classroom practices reviewed for this study has also drawn attention to the need to carefully consider the function and role of English, (and any other home languages) in the Gaelic-medium classroom. This is an issue at all levels from pre-school to secondary and signals the need to review and further develop pedagogies which are appropriate for Gaelic medium settings.

53. The models of trilingual education reviewed also demonstrate that there is scope for developing a European, CLIL approach which employs modern languages as

a medium of instruction for selected curriculum subjects within the current GME model. The experience in other language contexts indicates that GL pupils would gain significantly higher levels of functional fluency if a CLIL approach was adopted to the teaching of Gaelic as a subject and as a medium of instruction for several curriculum subjects in EM schools.

54. A range of structural and cost factors are identified. These include the costs of further practitioner and teacher CPD and ITE, materials development, providing 'catch up' immersion support to latecomer pupils and introducing the use of modern languages as a medium of instruction in non language curriculum subjects.

Recommendations

- In accordance with HMIe's (2011) recommendation for written national guidance for Gaelic Medium Education, such guidelines should also include guidance on:
    - the continuous development of GM immersion from one stage to another from 3 – 18;
    - when to make the transition from the 'total immersion' to 'immersion' phase, in order to ensure consistency in primary provision;
    - how to identify children's 'readiness' for the formal teaching of English or simply delay the introduction of 'formal' English until P3 in all GME classrooms.

- An appropriate pedagogy should be developed in order to implement the pre-school Curriculum for Excellence effectively in Gaelic-medium settings. National guidance on GM pre-school provision should address the need for all pre-school practitioners to gain:
    - fluency and confidence in their own Gaelic language repertoire;
    - a full understanding of bilingualism and language acquisition in minority language immersion;
    - expertise in teaching practices for managing and supporting the diverse language and education needs of Gaelic and non Gaelic-speaking children.

- Continuous CPD should be provided for all practitioners at pre-school, primary and secondary levels in order to:
    - share best practices in minority language immersion and Gaelic-medium teaching; and
    - achieve excellence and consistency in the way all teachers (including subject teachers) develop and support their pupils' bilingual language and literacy learning in GME.

- *Bòrd na Gàidhlig* and *Education Scotland* should collaborate to actively encourage more use of networks such as GLOW to ensure all GM teachers/practitioners have access to new resources and training.

- *Bòrd na Gàidhlig* should consider establishing a team or network of experienced GM teachers/practitioners who could provide support and advice to GM and GL teachers at all levels of Gaelic-medium provision.

- Practitioners should be encouraged to use IT more effectively as a tool for sharing best practice between schools and Local Authorities through, for example, Virtual Learning Environment (VLE), Skype and video conferencing.

- Gaelic language programmes should be developed to support children with learning needs and who may require specific language support.

- *Bòrd na Gàidhlig* should consider how best to provide Gaelic language instruction and support to 'latecomer' pupils so that they can join GME at any stage.

- Provision should be made to give extra Gaelic language support to Gaelic learners in order to help them move into Gaelic medium education.

- *Bòrd na Gàidhlig* should consider piloting the introduction of a CLIL approach to modern language teaching as part of GM provision at primary and/or secondary levels. Such an initiative should be monitored and evaluated in order to determine whether such a model could gradually be developed more widely.

- *Bòrd na Gàidhlig* should initiate a wide ranging review of Gaelic Language in the Primary School and in the Secondary School, in order to evaluate the effectiveness of such provision and identify how best such provision should exist and be supported in parallel to GME. The Bòrd should also consider the possibility of introducing a CLIL approach to the use of Gaelic as a medium of instruction for selected curriculum subjects in non GM schools.

- Following Curriculum for Excellence guidelines, secondary schools should be encouraged to integrate Gaelic or minority culture into more curricular areas and extra-curricular work.

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1.0 Project aims and methodology

The aim of this Bòrd na Gàidhlig funded project has been to review the literature and guidance on good practice in the immersion classroom teaching and learning of minoritised languages, from pre-school to high school, both internationally and in Scotland, such as would be applicable to the promotion of Scots Gaelic in Scotland.

The key questions set out in the Bòrd's research specification documents were as follows:

- What are the various models of classroom language immersion employed internationally?
- What models have been shown to be most effective in producing and maintaining fluent speakers of a minority language?
- How do these models cater for variation in pupil entry language abilities and linguistic backgrounds, including addressing the needs of first and second language pupils in the same class?
- How do these models cater for the introduction and development of literacy skills in the target language?
- How do these models cater for the introduction and development of language abilities in language(s) other than the target one, including examples of a majority national language and a foreign language(s)?
- What are the structural and financial contexts within which such models operate successfully?
- How do these compare to the model(s) for Scots Gaelic?
- What are the models that might be appropriate for the development of Scots Gaelic?
- What are the principle adaptations that would be required to implement these in Scotland, and what regional or other variations might be required or beneficial?
- What structural, financial and support implications might be expected to arise from adoption of these models in Scotland?

Gathering evidence for this project has largely been, as intended, a wide-ranging desk top based international review of language-in-education policy documentation and research literature on immersion education in many countries. We have focused, in particular, upon several minority language contexts in which immersion has been developed as a pedagogy of 'language revitalization' and 'heritage' language maintenance in order to provide comparisons that can inform the development of Gaelic-medium education in Scotland. The models presented for comparison are, namely, the use of immersion in Ireland, Wales, Catalonia, The Basque Autonomous Community, Canada, Aotearoa/New Zealand and the United States of America. We have also drawn upon the research literature in the field of second language acquisition

and bilingual/multilingual education more widely to address each of the issues identified in the research brief.

This international review of minority language immersion is very timely. In many other contexts, as well as in Scotland, practitioners, policy makers and researchers are re-evaluating the effectiveness of traditional minority language teaching models in contexts which are increasingly diverse, heterogeneous and multi-modal. It is now an undisputable fact that well executed bilingual education systems produce a more highly skilled and well qualified workforce than monolingual forms of education. As Ofelia García, has argued:

> "*Bilingual education in the twenty-first century must be re-imagined and expanded, as it takes its rightful place as a meaningful way to educate all children and language learners in the world today*" (García 2009:9).

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2.0 Developing Gaelic medium education in Scotland – the current policy context

In Scotland, as in so many other contexts throughout the world where the local language has become minoritised as a consequence of various historical, political and economic factors, education provides a possible means of saving the indigenous language. The vulnerable position of Gaelic in Scotland is echoed in many other language communities where there is an historical legacy of excluding the local language from the discourses and institutional practices of power such as the law, public administration and education. In Scotland, as elsewhere internationally, the past century has seen a severe erosion in the number of speakers in increasingly fragmented local communities and social networks. The rate of inter-generational language transmission within the family is in decline and no longer sufficient to reproduce the numbers of speakers required to sustain and grow the language community. Consequently, a policy of language revitalization places considerable emphasis upon the education system in order to produce autochthonous language speakers.

Gaelic-medium education in Scotland has developed quite considerably since the first experiment in teaching through the medium of Gaelic was undertaken in Comhairle nan Eilean Siar during the 1970's. Since the first Gaelic-medium primary classes were opened in Central Primary in Inverness and Sir John Maxwell Primary School in Glasgow in 1985, Gaelic-medium Education has become one of the most rapidly developing sectors in the Scottish Education system.[1] More recently, The *Gaelic Language (Scotland) Act* 2005 has provided the legislative springboard for creating a comprehensive policy framework for promoting the acquisition and use of Gaelic in Scottish Society. Bòrd na Gàidhlig published its first *National Plan for Gaelic (2007 – 2012)*, incorporating the *National Gaelic Education Strategy* in 2007 and, subsequently, in 2010 *Ginealach Ùr na Gàidhlig: An Action Plan to increase the numbers of Gaelic speakers*. These policy documents, together with the Gaelic Language Plan prepared by Learning and Teaching Scotland (2009), HMIE Scotland (2009) and The Scottish Government (2010), and the establishment of the National Gaelic Education Steering Group have provided the first opportunity for a comprehensive, nation-wide and multi-agency, co-ordinated approach to the further planning and development of Gaelic-medium education provision.

The Scottish Government's *Gaelic Language Plan* states that:

> *The Scottish Government recognises that a sustainable future for Gaelic requires more people to learn the language and that attention requires to be*

[1] Bòrd na Gàidhlig The National Plan for Gaelic / Annex A: The National Gaelic Education Strategy (p. 51).

focused on the home, education and adult learning as the key means of achieving this.[2]

The draft National Gaelic Language Plan 2012-17 sets the aim of achieving: "a 15% year-on-year increase in the number of children entering Gaelic-medium Education, from a baseline of 400 per year in 2011-12".[3] The National Plan acknowledges that such an increase "will require effective workforce and capital planning, substantially increased funding and a continuing political commitment".[4]

The guidance on learning and teaching through *Curriculum for Excellence*[5] recognises Gaelic as being a mainstream subject in the new curriculum and the *National Gaelic Language Plan 2012-17* includes among its aims: "*ensure that the principles and practices of Curriculum for Excellence are implemented fully in Gaelic and Gaelic-medium education at all levels".*[6]

Central to the new National Gaelic Language Plan is its commitment "to enhance delivery and assessment of Gaelic education and learning". This includes:

- *a particular emphasis on expanding, and enhancing the quality of, provision at the 0-3 stage;*
- *encourage further development of the methods used in order to make GLE as effective as possible at bringing learners to the level of communicative competence in the language;*
- *continuing to develop and refine immersion methodology in order to increase the total achieving fluency in Gaelic and in particular to enhance the standard of their Gaelic in terms of range of vocabulary and grammatical accuracy*;[7] and
- supporting the "*extended range of Gaelic Education and learning resources available in a range of media and formats to support all areas and sectors of Gaelic learning, within the overall context of Curriculum for Excellence*.

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[2] The Scottish Government, *Gaelic Language Plan* (2010), p. 67.
[3] Bòrd na Gaidhlig, *Growth and Quality: The National Gaelic Language Plan 2012 – 17* (public consultation document 4th October 2011 to 5th January (2012), p.15.
[4] Ibid., p.14.
[5] www.curriculumforexcellencescotland.gov.uk
[6] Bòrd na Gaidhlig, *Growth and Quality: The National Gaelic Language Plan 2012 – 17* (public consultation document 4th October 2011 to 5th January (2012), p.16.
[7] Bòrd na Gaidhlig, *Growth and Quality: The National Gaelic Language Plan 2012 – 17* (public consultation document 4th October 2011 to 5th January (2012), p.15.

3.0 Models of immersion education employed internationally

3.1 'Models' and 'types' of bilingual education

Before describing some of the various models of classroom language immersion employed internationally, it is necessary to frame such a description with reference to the considerable emphasis, at policy level and in research on bilingual education, upon defining and describing different 'models' and 'types' of bilingual schooling. One of the most well known and detailed classifications of different types of bilingual education is that of William F. Mackey (1970) who identified ninety different variables depending on the following four intersecting factors:

1. the relationship between the language(s) of the home and the schools;
2. curricular organisation of languages, the medium of education, their pattern of development, the distribution of the languages in the curriculum, the transition from one language to the other;
3. the linguistic character of the community and the country;
4. the function, status, and differences, both regionally and internationally, of the various languages (Mackey 1970 in García 2009:115).

Another typology much quoted in the literature is the classification used by Colin Baker (1993, cited in Baker 2011) and reproduced in Table 1 below, which groups types of bilingual programmes into the 'strong forms' of bilingual education which typically produce fully bilingual and biliterate pupils and the 'weak forms' which do not.

The classification of bilingual education into different 'models' has been driven by different ideological approaches. The early typologies provided by Mackey (1970) and others (e.g. Fishman and Lovas 1970; Spolsky and Cooper 1978) were informed by the structural-functionalist view of society which dominated research on bilingualism during the 1960's and 1970's (Martin-Jones, 2007). Research which has concerned itself with the language rights and bilingual education of minoritised language communities have defined models and typologies from a 'critical' perspective which emphasises the way different forms of education reproduce social inequalities and power relations (e.g. Skutnabb-Kangas 1984; Hornberger 1991; and Baker 2011).

The discourse of 'models' of bilingual education remains pervasive and influential in educational policy making and much of the typically large-scale quantitative research focussing on pupil attainment which informs those policies (Martin-Jones 2007). Similarly pervasive are the 'monoglossic ideologies' of bilingualism and bilingual education which "treat each of [a] child's languages as separate and whole, and view the two languages as bounded autonomous systems"(García 2009:7). Such a view of bilingualism dominated language and education policy and research in the latter half of the twentieth century and remains widely held. However, the attention paid in detailed studies of the language repertoires of bilingual and multilingual pupils and the classroom teaching practices in diverse and hybrid linguistic contexts (e.g. Heller & Martin-Jones 2001; Lin & Martin 2005; Creese & Blackledge 2010) has contributed to a

'heteroglossic' ideology of bilingualism which is based on Bakhtin's concept of 'heteroglossia' to mean 'multiple voices' (García 2009:7). This view emphasises the multiplicity of language repertoires and language practices of pupils and educational establishments in interrelationship and informs the more recent discussions of the models of bilingual education (e.g. García 2009) at the turn of the twenty-first century.

Table 1: Typology of models of bilingual education Baker (2011:210)				
WEAK FORMS OF BILINGUAL EDUCATION FOR BILINGUALS				
Type of program	**Typical type of child**	**Language of the Classroom**	**Societal and Educational Aim**	**Aim in Language Outcome**
TRANSITIONAL	Language Minority	Moves from minority to majority language	Assimilation / Subtractive	Relative Monolingualism
MAINSTREAM with Foreign Language Teaching	Language Majority	Majority Language with L2/Fl lessons	Limited Enrichment	Limited Bilingualism
SEPARATIST	Language Minority	Minority Language (out of choice)	Detachment / Autonomy	Limited Bilingualism
STRONG FORMS OF BILINGUAL EDUCATION FOR BILINGUALISM AND BILITERACY				
Type of program	**Typical type of child**	**Language of the Classroom**	**Societal and Educational Aim**	**Aim in Language Outcome**
IMMERSION	Language Majority	Bilingual with initial emphasis on L2	Pluralism and Enrichment. Additive	Bilingualism & Biliteracy
MAINTENANCE/ HERITAGE LANGUAGE	Language Minority	Bilingual with emphasis on L1	Maintenance, Pluralism and Enrichment. Additive	Bilingualism & Biliteracy
TWO WAY / DUAL LANGUAGE	Mixed Language Minority & Majority	Minority and Majority	Maintenance, Pluralism and Enrichment. Additive	Bilingualism & Biliteracy
MAINSTREAM BILINGUAL	Language Majority	Two Majority Languages Pluralism	Maintenance, Pluralism and Enrichment. Additive	Bilingualism

Note: L2= Second Language; L1 = First Language; FL = Foreign Language (Baker 2011:210)

3.2 Models of bilingual education: a word of warning

Models of bilingual education are, on the one hand useful, shorthand descriptions which provide a convenient way of describing and comparing different forms of bilingual education. As Cazden and Snow (1990) have aptly stated, 'bilingual education' is a simple label for a very complex and variable phenomenon. Furthermore, models are also artificial and grossly generalised constructs which are divorced from the actual reality of school language use (García 2009), and the teaching and learning of languages across the curriculum in bilingual and multilingual contexts. William F. Mackey also cautioned against the "exporting of a model of bilingual schooling as a magic formula for education success" (1978: 6) and warned that:

> *Abstract or generalized discussion on whether this model is better than that one can be both meaningless and harmful. It is meaningless because what is desirable education for any group depends on the particular context in which its children will have to live and work. It is harmful because any assumption that there is a best and universally applicable model is bound to lead some people to pick the wrong one. Moreover, in trying to make a model operational, even though it be the wrong one, the institution (university or school or class) tends to become a system the purpose of which is to make the system work*. (Ibid.)

With the above caveat in mind, therefore, the following section presents a brief overview of a selection of models of immersion education developed internationally as described in the research and policy literature.

3.3 Comparing 'models' of immersion education

The use of immersion as a pedagogy in bilingual/multilingual education is widespread across the globe and beyond the scope of this project to give an account of all variations (see Johnstone 2002 for a comprehensive review). In this section, we have limited our overview, for comparative purposes, to the way immersion developed as a methodology for second language acquisition in Canada and subsequently adapted to meet the needs of different language groups throughout the world. We present, for comparison with Gaelic medium education as it has developed hitherto in Scotland, a synopsis of the immersion models in Aotorea/New Zealand, Hawai'i, Canada and the United States. In the European context, we focus on: Wales, Ireland, Catalonia and The Basque Country. We use García's (2009) terminology '*immersion revitalization bilingual education*' and '*developmental bilingual education*' to distinguish, as she does, between the use of immersion by indigenous groups such as the Māoris and Navajo and its use in the education programmes of many European autochthonous language minority groups to which Scottish Gaelic speakers belong.

3.3.1 'Second language' immersion

Students in formal education have long been 'immersed' in a learning environment where the instruction is being conducted in their second/additional language (Johnson & Swain, 1997). The term 'immersion education' as it is now used in the field of bilingual education was first developed in Canada during the 1960's to describe the then innovative approach to teaching elementary school students from English-speaking homes through the medium of French. It is important to remember that children from French-speaking homes attended separate, French-medium schools. This meant that, in contrast with many pupils in Gaelic medium education, the pupils in Canadian immersion classrooms were relatively homogeneous in that they were all receiving their education through the medium of a common 'second' language.

The Canadian approach to second language learning was initially developed at Kindergarten with children aged 4 - 5 and was termed **early immersion.** This was later extended to include **middle immersion** when starting at Grade 4 with pupils aged 8-10 or Grade 5 when they were 9 -11 years old. **Late immersion** was also introduced when pupils began this form of education at Grade 7 when aged 11-13 or in Grade 8 when they were 12-14 years old. The philosophy that underpins such immersion teaching is that second languages are best learned in schools when used in authentic communicative contexts similar to those used in first language medium education rather than being taught explicitly as in the traditional second/foreign language lessons.

French immersion programmes in Canada are fully bilingual in as much as the teaching staff are all bilingual, both French and English are used as the languages of instruction in a structured and organised manner and they aim to develop fully bilingual and biliterate pupils. In Canada:

> "*early immersion usually involves 100% French in kindergarten and grade 1*[8] *with one period of English language arts introduced in grades 2, 3 or sometimes as late as grade 4. By grades 5 and 6 the instructional time is divided equally between the two languages and usually the amount of time through French declines to about 40% in grades 7, 8 and 9 with further reduction at the high school level as a result of a greater variety of course offerings in English than in French*." (Cummins 1998:1)

When comparing the Canadian 'second language' immersion model to the use of immersion as a pedagogy in 'minoritised' language contexts such as Gaelic in Scotland, it is always important to remember the comparatively high status of both French and English how extensive pupils' opportunities were for acquiring and using English outside the context of their French immersion classrooms. Therefore, timetables which decrease the amount of curriculum time pupils are immersed in French in the Canadian model would not, as we shall see in other contexts necessarily be appropriate when

[8] In the Canadian education system, pupils are graded as follows: Grade 1 (Ages 5 -7); Grade 2 (Ages 6-8); Grade 3 (Ages 7-9); Grade 4 (Ages 8-10); Grade 5 (Ages 10 -12); Grade 6 (Ages 10 – 12); Grade 7 (Ages 11 -13); Grade 8 (Ages 12-14); Grade 9 (Ages 13-15).

children are immersed in a minority second language to which they have very restricted access outside the context of their school.

The Canadian model of immersion has proved, over the past forty years and more, to be successful (e.g. Genesee 1983; Swain and Johnson 1997) and popular and has been adopted in many countries throughout the world (see Johnstone 2002). Types of 'second language' immersion education vary widely both within national education programmes as well as internationally. In general, "at least 50 % of instruction during a given academic year must be provided through the second language for the programme to be regarded as immersion*"* (Genesee 1987:1). Swain & Johnson (1997) have identified eight different core features of immersion education programmes internationally:

- The additional language is a medium of instruction.
- The immersion curriculum parallels the local majority language curriculum.
- Overt support exists for the home language.
- The program aims for additive bilingualism.
- Exposure to the additional language is largely confined to the classroom.
- Students enter with similar (and limited) levels of proficiency in the additional language.
- The teachers are bilingual.
- The classroom culture is that of the local majority-language culture.

As such, these kinds of 'second language immersion' education are 'monoglossic' (cf. García 2009) in that they are:

> "*based on monolingual lenses and ideologies that support the acquisition of a second language and its development as separate from that of the other language. ... the assumption is that children start as monolinguals from the same linguistic point*" (García 2009:123)

The reviews of the Canadian model and other models of 'second language' immersion internationally (e.g. Swain & Lapkin 1982; Genesee 1983; Laurén 1994; Johnson & Swain 1997; Johnstone 2002; de Courcy 2002) are consistent in their conclusions regarding the success of these programmes and have identified the following three major outcomes:

4. Immersion students surpass mainstream students in their acquisition of a second language.
5. After approximately six years of schooling, immersion students have caught up and, in the case of early total immersion pupils, go on to exceed the first language attainment of their monolingual peers (Johnstone 2002; Swain & Lapkin 1982, 1991).
6. Early total immersion pupils gain a second language without any negative effect upon their performance in their other curriculum subjects

(however, this is not typically the case for early partial immersion and late immersion students).

3.3.2 Immersion revitalization bilingual education

The twentieth century saw a large number of language groups being severely diminished numerically as a result of political, social and economic restructuring and, consequently, efforts to 'revitalize' the languages of minoritised language groups have developed in various ways. Leena Huss, among many others, defines language revitalization as 'a conscious effort to curtail the assimilative development of a language which has been steadily decreasing in use and to give it a new life and vigour' (1999:24). Just as education provides a vehicle for establishing the status of the language of dominant social groups, so too has schooling become one of the central tenets of minority language revitalization (e.g. Fishman 1991, 2000). The success of Canadian immersion programmes in the 1960's and 1970's led to its pedagogic approach being appropriated and adapted by numerous ethnolinguistic minority groups as a central feature of their language-in-education policies. The most influential adaptation of immersion education by an indigenous community is that of the Māori in Aotearoa/New Zealand. This section focuses on the Māori 'immersion revitalization' model and mentions the way this model influenced the language-in-education revitalization efforts of other indigenous language groups.

Māori

In the early 1980's, the Māori–medium education movement developed its own approach to immersion education when '*he kōrero Māori*' (speaking in Māori) was one of the central principles of *Te Kōhanga Reo* (meaning 'language nests') – the pre-school centres for children under 5 years of age in which *wahānau* (extended family) imparted Māori values, language and culture to the youngest members of the Māori community as an attempt to prevent the imminent loss of the Māori language. (Benton 2007; May & Hill 2008/2011). The *Te Kōhanga Reo* pre-school immersion model was a culturally Māori appropriation of the Canadian immersion model and the 'natural approach' to second language learning which was popularised in the 1980's by the work of Krashen and Terrell (e.g. 1983).

Prior to *Te Kōhanga Reo*, the only Māori-medium instruction available to Māori children had been a limited number of 'transitional bilingual programmes' that had been established in the 1970's in remote rural areas where Māori remained the principle community language (May & Hill 2008/2011). In these schools, as in other forms of 'transitional bilingual education' worldwide (cf. Baker 2011), the aim of such schools was not to retain the use of Māori, but to move children towards the greater use of English (Benton 1981 in May & Hill 2008/2011). By 1975, less than 5% of Māori schoolchildren could speak Māori in comparison with 90% in 1913 (Durie 1997). The form of immersion developed in *Te Kōhanga Reo* was therefore a deliberate attempt to

create a new generation of Māori speakers and an attempt to avert the otherwise imminent death of the language. The rapid expansion and success of *Te Kōhanga Reo* from the first hundred established in 1982 to the 800 in existence by 1994 were responsible for providing Māori immersion education for almost 50% of all Māori pre-schoolers by 1995 (Black, Marshall and Irwin 2003). This led, in turn, to the establishment of Māori immersion provision in ***Kura Kaupapa Māori*** (primary) and ***Wharekura*** (secondary) schools.

In Aotearoa/New Zealand, educational policy specifically distinguishes between four levels of immersion, each receiving a different allocation of government funding, namely:

Level 1: 81 – 100% Maori medium
Level 2: 51 – 80% "
Level 3: 31 – 50% "
Level 4: 12 – 30% "

The term 'Immersion education' is associated exclusively with Level 1 (81 – 100%) Māori – medium learning environments which exist in the separate, whole-school provision in ***Te Kōhanga Reo*** (pre-school), ***Kura Kaupapa Māori*** (primary), and ***Wharekura*** (secondary) Māori –medium schools. The lower levels of immersion (Level 2 – Level 4) are classified as 'bilingual education' and characterize the Māori-medium provision in the more recent and growing number of bilingual units within the English-medium mainstream sector (May 2011:66). Table 2 indicates the various types of Māori medium provision available in 2000.

Table 2: Number of *Kura Kaupapa Māori* and other Māori–medium schools (Source: Ministry of Education 2002:28 in May, Hill & Tiakiwai 2004:131)

Number of Schools	**Year 2000**
Kura Kaupapa Māori	59
Other immersion schools	16
Bilingual Schools	79
Schools with Immersion Classes	104
Schools with Bilingual Classes	172
TOTAL	430

While pre-school and primary level Māori-medium appears to be quite successful, there remains an immense challenge providing Māori medium education at higher grades - only 2.3% of Māori students are enrolled in a 'kura' (May *et al.* 2004).

It is a feature of Māori-medium education that 'full immersion' (Level 1) is the main form of Māori-medium provision. In 2000, just over 11,000 Māori students were in Level 1 forms of provision while fewer than half this number (5,117) were in Level 2 and Level 3

(5,480) programmes (May & Hill 2011:84). Furthermore, the majority of Level 1 full immersion programmes exist as separate, whole-school *Kura Kaupapa Māori* (ibid.). Research on Māori-medium education confirm the general findings of immersion education elsewhere, that it is the full immersion (81% - 100%) programmes that are the most successful and that partial programmes which teach more than 51% - 80% in the target language can also have positive results. Consequently, it is argued that Māori-medium be concentrated in the Level 1 and Level 2 forms of provision (May & Hill 2011) rather than continuing to expand provision generally with lower levels (Levels 3 and 4) of bilingual education. Based on the Māori experience, May & Hill (2011) also argue that whole school Māori-medium programmes have several advantages over those that exist as bilingual units or classes which include:

- being more conducive to learning Māori, and
- attaining high academic levels in the curriculum subjects.

> "*When the target language program is situated within a context where the majority language dominates, any additive bilingual context fostered by the program may be potentially undermined by a wider subtractive view of the target language, and of the program itself, throughout the whole school*" (May & Hill 2011:88)

While indigenous immersion revitalization programmes traditionally cater for native speakers of the indigenous language, most students currently in Māori-medium education have English rather than Māori as their 'first' language. This is also true of the majority of their teachers since teachers are typically of the generation that personally experienced the generational loss of Māori and did not receive their own pre-school, primary and secondary education through the medium of the language (May & Hill 2008/2011). Consequently, research which evaluates the effectiveness of Māori medium education draws attention to the need to address the specific requirements of pupils with differing language backgrounds and helping teachers to develop fluency in Māori. Research in the Māori context also emphasizes the 'dearth of information on the factors that contribute specifically to the *educational* effectiveness of particular Māori medium programmes, and the related academic outcomes of their students' (May & Hill 2008/2011:68). It is argued that more research is needed, particularly with regard to conditions that promote the successful achievement of biliteracy and thus educational achievement in Māori medium education (May *et al.*. 2004).

Languages of indigenous communities in USA & Canada

During the 1980's, following the model developed by the Māoris, native Hawaiians also established *Pūnana Leo* (meaning 'Nest of Voices') as part of their immersion revitalization programme. In Hawai'i as in Aotearoa/New Zealand, most native speakers of Hawaiian were older speakers in their seventies and over and, faced with the imminent prospect of losing the last generation of Hawaian speakers, creating a Hawaiian immersion pre-school programme provided a means of revitalizing the language among members of the younger generation. The success of the *Pūnana Leo* led to the establishment of *Kula Kaiapuni Hawai'i* (Hawaiian Immersion public schools)

in which children are educated through the medium of Hawaiian up until 5th Grade when English is introduced as a subject (Garcìa 2009, Wilson and Kamanā 2001). Other indigenous communities in the United States and Canada have also adopted similar models, albeit on a smaller scale, such as the Navajo/Diné immersion programme in Arizona where more than half of classroom time is spent in Navajo and the remainder in English, between kindergarten (age 5-6) and Grade 3 when children are 8-9 years old (McCarty 2002, Garcìa 2009). In the context of the Canadian First Nations, one example provided by Garcìa (2009) is the Mohawk and Cayuga immersion schools in Ontario. In these schools, children are taught solely through the medium of Mohawk or Cayuge from kindergarten up to 6th grade (ages 10–12). English is added during Grade 7 (at age 11–13) where the language of instruction becomes 50% Mohawk/Cayuga and 50% English and continues thus in Grade 8 (age 12-14). In High School, the proportion of the curriculum taught through the medium of English increases to 60%.

> "*Throughout the four years of high school, the students take one semester of Mohawk or Cayuga, and a second semester of Native Studies taught through the indigenous language. The purpose of transmitting the language and culture is to continue the traditional way of life, as well as to prepare the children for the greater society beyond The Grand River Territory*" (Garcìa 2009:250)

3.3.3 (Immersion in) Developmental Bilingual Education

Garcìa (2009) distinguishes between *immersion revitalization bilingual education* among indigenous language communities and *developmental bilingual education* among, typically, European autochthonous language groups such as: Scottish Gaelic, Welsh, Irish, Catalan, Basque and so forth. In the European context, there is a mixture of minority language medium education which has been classified in the research literature as *heritage* or *maintenance* or *community language education* (cf. Baker 2011; Johnstone 2002) in which children from minority language speaking homes access education through the medium of their home language. Other children learn the minority language as a second or additional language at school and thus experience language immersion akin to their counterparts in Canada and elsewhere, often in the same school or classroom.

Scottish Gaelic

Historically, there has been an annual drop of approximately 1000 Gaelic speakers, which, when compared with the 400 – 500 pupils entering Gaelic medium at P1 level each year (Scottish Funding Council 2007) only serves to highlight the fragility of the language and the need to continue to revitalise its uptake and growth. In 2001, Gaelic speakers were predominantly located in the Highlands and Islands of Scotland, with the highest proportion located in the Western Isles. However, with almost 45% of Gaelic

speakers then living outwith Gaelic areas (ibid.) it is clear that Gaelic-medium education has a major part to play.

In Scotland, the development of Gaelic-Medium Education (GME) has been based on a 'language immersion' approach to teaching and learning through the medium of a second or minority/'heritage' language. The springboard for choosing an immersion approach was largely down to the limited success of the Bilingual Education Project in the Western Isles in the mid 1970's. Whilst the project was successful in raising the status of the language in schools and local communities, it highlighted the difficulties in trying to create truly bilingual learning in pre-school education and from P1 to P3, given that the children entering schools were frequently non-Gaelic speakers (Nicolson & MacIver 2003). Therefore, this change in demographics highlighted the need to look at another pedagogy to counteract the influence of English on the decline of the Gaelic language among children.

In the early 1980's, Gaelic-medium parent-run playgroups began to appear, inspired by the 'total immersion' Welsh playgroups observed in South Wales. *Comhairle nan Sgoiltean Araich* (CNSA) was established in 1982. Then, CNSA had only 4 playgroups. Today, there are over 1,550 children in 0-5 Gaelic-medium education in almost 120 groups across Scotland. During the 1990's, the growing support for Gaelic, together with the government's introduction of a policy of nursery education for all three and four year olds, led to a rapid growth in the number of pre-school children engaging in Gaelic playgroups (Nicolson & MacIver 2003). Local authorities were gradually persuaded to follow suit and provide Gaelic-medium pre-school provision in primary schools.

Table 3 indicates the numbers of pupils enrolled in local authority Gaelic-medium education during the 2010-11 school session.

Table 3: Gaelic-medium provision in local authority education 2010/2011		
Stage	Number of pupils	Number of GME Units
Nursery	802	58
Primary	2312	60
Secondary	410	14
TOTAL	3524	132

Source: http://www.gaidhlig.org.uk

In Gaelic-medium provision, teaching and learning is intended to be wholly through Gaelic during pre-school and Primary 1. In the policy literature, **total early immersion** refers to "[t]he early stages of learning through the medium of Gaelic and where no other language is used" (HMIe 2011:3). English as a subject is then gradually introduced through the medium of Gaelic in the **immersion phase** (around P2/3), with Gaelic remaining the medium of classroom instruction in all areas of the primary curriculum. In practice, the way teachers interpret these guidelines varies greatly (HMIe 2011:6). It has been stated that English should be introduced when children "feel equally confident in the use of Gaelic and English; and are able to use both Gaelic and English in a full range of situations within and outwith school" (HMIe 2011:4). However,

there are no recognized benchmarks for teachers to use in order to identify 'equal fluency' in both Gaelic and English. Generally, practitioners will decide through experience, when to introduce English into the classroom setting during P2 when pupils are 6-7 years old or later in P3 when they are aged 7-8. When or how this is achieved is different in each local authority where there is Gaelic provision (HMIe 2011). It has been found that this variation and inconsistency can lead to English being introduced too early, well before children are sufficiently ready with their Gaelic language competence and that this is thought to have a negative impact on pupils' overall fluency in Gaelic at a later stage (HMIe 2011:4).

A recent report by HMIe (2011:3) has identified some of the key features of Gaelic-medium immersion practice by the best GM providers in pre-school and primary provision:

- Staff show a very strong commitment to ensuring that the curriculum is delivered totally through the medium of Gaelic;
- Staff transform all learning into opportunities for children to earn Gaelic with an initial emphasis on listening and talking;
- Staff use creative ways to enable children to learn the language with ease and in situations which they enjoy;
- There is a planned approach to language structures;
- Staff work with others to support children and parents to develop and use Gaelic at home and in the community;
- Schools develop Gaelic language opportunities beyond the classroom.

At secondary level, there is a much more disjointed picture, where GM provision is still developing and provision varies greatly from school to school and between local authorities. Whilst 46 schools provide Gaelic in some form, only 14 deliver other subjects through the medium of Gaelic. These subjects are mainly available in S1 and S2 and only a few schools offer geography, history, mathematics and modern studies right through to S4 (HMIe 2011: 3). It is recognized that this provision does not adequately support effective and continuous progression for pupils who have been taught through the medium of Gaelic from pre-school. There is a significant drop in the number of Gaelic medium primary pupils who go on to Gaelic medium secondary education and there is also a drop in numbers of those studying Gaelic in S1/S2 and S3/S4. It has been identified that many parents are discouraged by the lack of clear progression from 3 – 18 and, therefore, schools and local authorities are not planning effectively for progression and overall improvement in planning to meet the needs of Gaelic medium pupils throughout their Gaelic education (HMIe 2011).

Welsh

The development of Welsh-medium education in Wales is quite complex, with provision having developed gradually over the last century, and in a fairly ad-hoc manner in the

context of a lack of strategic planning at the national level until the publication of a Welsh-Medium Education Strategy in April 2010. Provision varies from one local authority to another, typically reflecting the demography of Welsh-speaking communities as well as varying degrees of commitment to Welsh-medium education and inconsistencies in the implementation of policy. Since the 1944 Education Act permitted Local Education Authorities in Wales to consider opening Welsh medium schools, there have been two main types of Welsh-medium schools, namely 'traditional' or 'natural' Welsh schools and 'designated Welsh-medium' schools.

The **traditional** or **'natural' Welsh** schools are located in Welsh heartland and rural areas where there is typically a majority or significant proportion of Welsh speakers. Such schools predate the 1944 Education Act and had begun to gradually re-introduce Welsh as a subject and medium of education from the late nineteenth and early twentieth century onwards (Evans 2000a; 2000b), serving, as they did, a predominantly monoglot Welsh population. The 'natural' Welsh schools have developed over time with regard to the amount of teaching which is conducted through the medium of Welsh. Such schools have always had to accommodate the language repertoires of the children of local families and thus teaching children with varying repertoires in Welsh and English has been a constant feature of such schools. The economic restructuring of rural communities and steady influx of in-migration means that the proportion of children from non Welsh-speaking homes in these schools is increasing. Therefore, whereas the wider availability of Welsh language resources means that the primary curriculum can now be delivered comprehensively through the medium of Welsh, the pupil profile in the 'natural' Welsh schools has become increasingly diverse linguistically.

The first state run '**designated' Welsh-medium** school opened in Llanelli in south Wales in 1947. 'Designated' Welsh-medium schools have been established in the more Anglicised urban, southern and eastern parts of Wales. From the outset, these schools aimed to be as completely Welsh medium as their access to Welsh language resources permitted. Whereas they initially began by catering for the children from Welsh-speaking homes, they quickly became a popular choice of education for non-Welsh speaking families. The growth in the popularity of Welsh-medium schools was particularly dramatic in the 1960's – 1980's and continues to increase to this day as a growing number of non-Welsh speaking parents choose Welsh-medium education for their children. One of the factors which contributed to the growth of Welsh-medium schools was the founding of *Mudiad Ysgolion Meithrin* in 1971. This Welsh-medium nursery school movement provided an opportunity for Welsh-speaking and non-Welsh speaking children to access Welsh-medium pre-school education, thus increasing the parental demand for Welsh-medium education at primary and subsequently secondary levels (much as did the *Te Kōhanga Reo* in Aotearoa/New Zealand).

Early years (age 3 – 7)

Mudiad Ysgolion Meithrin is the main provider of Welsh medium early years care and education in the voluntary sector in Wales. Mudiad Meithrin (as it is now known) has

opened and supports 425 *Cylchoedd Ti a Fi*. These are parent and toddler groups which aim to provide an informal opportunity for Welsh-speaking and non-Welsh speaking parents and their young children to come together to play and socialise in an environment which actively promotes the use of the Welsh language. In addition, there are currently some 517 *cylchoedd meithrin* (nursery groups) throughout Wales attended by around 13,000 pre-school children aged from 2.5-4 years old[9]. Welsh is the language of the *cylch* and the experiences and activities offered in their provision is based upon learning through play. There is an emphasis upon developing the Welsh language skills of every child in a naturally Welsh medium environment for Welsh-speaking children and in a 'total early immersion environment' for those children from non-Welsh speaking homes. All staff are bilingual and Mudiad Meithrin now provides its own courses on 'immersion' teaching in addition to providing accredited CACHE Level 2 and 3 courses in Childcare and Education which is taught and assessed through the medium of Welsh. Mudiad Meithrin's core funding is allocated as a grant from The Welsh Language Board and from the Welsh Government's *Children and Families Service*. This core funding is supplemented by a number of other grants for specific projects/purposes and by income from its activities and resources (WAG 2009:37).

In addition to the private and voluntary sectors, pre-school provision has also been extended within the state sector. The Foundation Phase curriculum has been gradually introduced in Wales since 2004 and specifically includes *Bilingualism and Multicultural Understanding* as one of its 7 curriculum areas. It is anticipated that this new Early Years curriculum will further increase young children's opportunities for learning through the medium of Welsh across all sectors.

Primary (age 3 – 11)

In Wales, Welsh-medium primary schools[10] are schools in which all pupils in the Foundation Phase (age 3-7) experience all areas of learning through the medium of Welsh[11]. In these schools, Welsh is also the main medium of instruction for Key Stage 2 pupils aged 7-11, with at least 70% of the curriculum being taught through the medium of Welsh. English is introduced formally in Year 3 when pupils are 7-8 years old and taught through the medium of English. As Table 4 indicates, there were 419 Welsh-medium primary schools throughout Wales, educating 51,244 pupils in 2010/2011.[12] Welsh is the language of the day-to-day business of Welsh-medium primary schools and it is expected that all pupils will be able to transfer to Welsh-medium secondary schools, regardless of the children's home language. It is also expected that by the end of primary school, pupils will have achieved an equivalent standard in English as those pupils educated in English medium schools. In the case of 'latecomer' children from non-Welsh speaking backgrounds who join Welsh-medium schools later on in the

[9] See http://www.mym.co.uk accessed 18/12/2011.
[10] All the categories of Welsh-medium schools include both 'designated' and 'traditional/natural' schools.
[11] See Welsh Assembly Government 2007 *Defining Schools According to Welsh Medium Provision* for a full definition of all primary and secondary schools.
[12] See: Welsh Assembly Government http://www.statswales.gov.uk (accessed 20/12/2011)

primary school phase, considerable effort is made to help them gain Welsh-language skills as quickly as possible in order that they achieve within the Welsh-medium learning environment and are capable of transferring to Welsh-medium secondary schools along with their classmates. See Section 4.1.3 for details on supporting 'latecomers'.

Table 4: Primary schools by Welsh medium type 2010/2011

Welsh medium	Dual stream	Transitional	English (with significant Welsh)	English medium
419	43	5	38	930

Source: Welsh Assembly Government http://www.statswales.gov.uk (accessed 20/12/2011)

> "*From seven to eleven years of age (Key Stage 2 of the National Curriculum), English language skills are also developed through appropriate use of the language as a subject and medium. A key consideration is the nature of the linguistic balance between Welsh and English, and the intensity of Welsh-medium input required in order for learners to reach fluency in both Welsh and English over time. It is generally accepted that at least around 70% of curricular time should be through the medium of Welsh if learners are to acquire a sufficiently sound command of the language to enable them to use it across a broad range of contexts with confidence and fluency. The Welsh Assembly Government accepts this guiding principle for Welsh-medium schools at primary and secondary level*." (Welsh Assembly Government 2010)

In Dual Stream primary schools, Welsh-medium and English-medium provision co-exist. Both languages are used in the day-to-day business of the school, although some schools aim to deliberately create a Welsh medium ethos by using more Welsh than English in this regard. It is expected that pupils in the Welsh-medium stream will achieve the same outcomes as those attending Welsh-medium schools.

In the few 'Transitional' primary schools, Welsh is the primary medium of education with a significant use of English. Foundation Phase pupils (aged 3 -7) experience the areas of the curriculum mainly through the medium of Welsh and both languages are used with age 7-11 pupils, albeit with a greater use of Welsh amounting to 50+% - 70%. In such schools it is typically those pupils from Welsh-speaking homes who will be able to transfer to a Welsh-medium secondary school. It is expected that such schools will only be in this category on a temporary basis (hence the designation 'Transitional') and, in time, become Welsh-medium schools.

In the predominantly English-medium primary schools, Welsh can be used as the medium of teaching or learning for 20% - 50% of the overall primary curriculum. The day-to-day language use in the school varies depending on the school's linguistic context, although there is frequently a high priority given to creating a Welsh ethos in the school. It is typically expected that most pupils in such schools will transfer to English medium secondary schools but with an enhanced ability in Welsh in comparison

with those pupils who attend English-medium primary schools. It is also expected that some pupils may be able to pursue a limited number of secondary curriculum subjects through the medium of Welsh where provision permits.

In the English medium schools, Welsh is typically taught as a second language to pupils aged 7 -11. This type of teaching of Welsh as a second language subject is widely considered to be ineffective (e.g. Hopkins 2006). Less than 20% of the teaching is conducted through the medium of Welsh.

Secondary (age 11 – 16)

At secondary level, Welsh-medium provision has increased steadily, albeit at a slower rate than in the primary sector. In 2010/11, 32 secondary schools were classified as Welsh-medium, educating 23,033 pupils aged 11 -15, (see Table 5).[13]

Table 5: Secondary schools by Welsh medium type 2010/11

Welsh medium	Bilingual Type A	Bilingual Type B	Bilingual Type C	English (with significant Welsh	English medium
32	5	10	9	8	158

Source: Welsh Assembly Government http://www.statswales.gov.uk (accessed 20/12/2011)

Welsh-medium secondary schools typically teach all subjects apart from English through the medium of Welsh although some schools may introduce English terminology in one or two subjects. It is expected that all pupils will be assessed through the medium of Welsh in all subjects apart from English or other language. It is also expected that all pupils will be able to progress to Welsh-medium post 16 provision.

In the **bilingual secondary schools**, there is some variation on the bilingual model, as follows:

> **Category A bilingual** schools teach at least 80% of subjects (apart from English and Welsh) through the medium of Welsh to all pupils. In these schools, one or two subjects may be taught to some pupils through the medium of English or both languages.
>
> **Category B bilingual schools** teach at least 80% of subjects (apart from Welsh and English) through the medium of Welsh but these subjects are also taught through the medium of English.
>
> **Category C bilingual** schools teach 50% - 79% of their subjects (excluding Welsh and English) through the medium of Welsh and teach these subjects through the medium of English.

[13] See: Welsh Assembly Government http://www.statswales.gov.uk (accessed 20/12/2011)

It is expected that the pupils who follow the maximum number of courses through the medium of Welsh in the Category A, B and C bilingual schools will be assessed in Welsh and able to progress easily to Post 16 Welsh medium in chosen courses.

In the '**predominantly English with significant use of Welsh**' secondary schools, all subjects (apart from Welsh) are taught through the medium of English and 20-49% of the curriculum subjects are also taught through the medium of Welsh. It is expected that pupils who choose the Welsh-medium options could be assessed through the medium of Welsh and be capable of progressing to study those subjects through the medium of Welsh at Post 16 level.

In the predominantly **English-medium secondary schools**, Welsh is taught as a second language and one or two subjects (including Welsh as a first language) may be taught as an option through the medium of Welsh or using both languages. Most pupils would be assessed in English and progress to English-medium post 16 study. However, it is expected that any pupils who chose Welsh-medium subjects could be assessed through the medium of Welsh in those subjects and may be able to continue to study those subjects through the medium of Welsh at post 16 level.

The range of subjects which can be taught fully through the medium of Welsh has increased steadily since the 1950's. During the 1960's, due to an initial lack of Welsh language resource materials, only a limited number of Welsh-medium qualifications were provided by the Welsh Joint Education Council (WJEC). By 2009, 19 awarding organisations provide over 400 qualifications though the medium of Welsh. An annual publication of some 200 – 250 Welsh language educational resources support teaching and learning through the medium of Welsh in a wide range of curriculum subjects (WAG 2010).

As Table 6 below indicates, the proportion of pupils in Welsh-medium education who speak Welsh fluently at home varies greatly throughout Wales. It is a feature of Welsh-medium primary and secondary education in Wales, that children from Welsh-speaking and non-Welsh speaking homes are educated together in the same classroom. For children from Welsh-speaking homes, Welsh medium education for them is synonymous with 'heritage' or 'maintenance' language education while for the other children they experience Welsh-medium education as immersion education in an additional language.

Table 6: % primary and secondary school pupils who speak Welsh fluently at home (2010/11)		
Local Education Authority	**% pupils aged 5-11 in primary schools**	**% pupils aged 11-15 in secondary schools**
Isle of Anglesey	36.0	40.3
Gwynedd	56.6	58.3
Conwy	11.6	10.2
Denbighshire	10.1	13.7
Flintshire	1.1	2.4
Wrexham	1.8	4.0
Powys	5.7	7.8
Ceredigion	26.6	37.4
Pembrokeshire	5.3	8.2
Carmarthenshire	21.3	24.3
Swansea	2.7	3.2
Neath Port Talbot	4.4	6.1
Bridgend	1.2	1.3
Vale of Glamorgan	3.2	2.1
Rhondda, Cynon, Taf	5.4	4.4
Merthyr Tydfil	0.7	0.2
Caerphilly	1.4	0.4
Blaenau Gwent	0.3	0.1
Torfaen	0.2	1.9
Monmouthshire	1.4	0.1
Newport	0.2	0.1
Cardiff	3.5	4.1
Wales	7.6	8.8

Source: Welsh Assembly Government at http://www.statswales.gov.uk

Some of the current issues currently facing Welsh-medium education provision include:

- The need for increased availability of Welsh-medium childcare provision the need to further develop the childcare workforce to be able to deliver through the medium of Welsh;
- The need to improve the range of Welsh-medium provision, particularly for age 14+;
- Addressing the lack of progression and, therefore, the loss of skills as pupils move from primary to secondary education. For various reasons a significant number of pupils who have been learning Welsh as a first language at primary level in the traditionally Welsh-speaking areas, move to

becoming 'second language learners' in secondary school. This would be the equivalent of Scottish pupils transferring from GME to GLE.

Irish

Irish was first included in the national curriculum in Ireland in 1878. At that time, it was only included as a marginal subject even though a significant proportion of the pupils attending schools at the end of the nineteenth century were predominantly Irish monoglots (Ó Buachalla 1984). Irish began to play a more significant role as a language of education when, following independence in 1922 the government decreed that Irish be the first official language of the new state and sought to promote the learning and use of Irish. It was announced in 1922 that Irish would be taught and also used as the medium of instruction for at least one hour a day in all National (primary) schools (Ó Duibhir 2011). It was also decided that Irish should be the only language of instruction in infant (ages 4-6) classes (Coolahan 1981). Thus began a policy of Irish immersion or partial immersion education, (though at this time it was not defined as such) which proved to be quite successful. By 1941, 12.3% of National schools in Ireland were using Irish as the sole medium of education for all subjects apart from English and a further 43.2% of National schools were using Irish as the sole medium of instruction in certain grades (Ó Buachalla 1984, 1988; Ó Riagáin 1977; Harris 2008; Ó Duibhir 2011). However, by 1980/1981 Irish-medium provision had reduced dramatically with only 3% of primary pupils throughout the Republic of Ireland (including those in the heartland *Gaeltacht* areas) were being taught entirely in Irish (Ó Domhnalláin 1987; Ó Riagáin 1977).

In 1972 there were only 10 *gaelscoileanna* (all-Irish schools) outwith the *Gaeltacht*[14]. These schools came to be known as 'all-Irish' schools because all subjects except for English language arts were taught through the medium of Irish. Despite the setback for the state-led initiative to expand Irish-medium education reaching its lowest point in the early 1970's a new parent-led movement seeking more Irish-medium education gained momentum in the same decade and has led to a sustained resurgence in the number of *gaelscoileanna* since then.

In 2010-2011 there were 172 *gaelscoileanna* outwith the *Gaeltacht*, responsible for educating 32,551 of pupils together with a further 8,620 pupils having an Irish medium education in 40 secondary schools[15]. The majority of *gaelscoileanna* employ an early total immersion policy for the first year of Junior Infants (age 4-5). English language arts are introduced in Senior Infants when the pupils are aged 5-6 (Ó Duibhir 2011). This is earlier than the introduction of English in the Scottish Gaelic and Welsh models but echoes the practice in, for example, Swedish immersion in Finland (Björklund and Mård-Miettinen 2011). The remaining 85% of instruction is conducted through the medium of Irish and this pattern of instruction, this 'high language intensity' model of immersion, is

[14] Irish-medium schools outside the Gaeltacht 1972 – 2010, statistics available at: http://www.gaelscoileanna.ie

[15] Irish-medium schools outside the Gaeltacht 1972 – 2010, statistics available at: http://www.gaelscoileanna.ie

consistent across all the all-Irish immersion schools and maintained throughout primary and secondary education (Ó Duibhir 2011:146). The pupils attending the *gaelscoileanna* outwith the *Gaeltacht* are predominantly from English-speaking homes. Fewer than 3% of children come from homes where Irish is spoken and in recent years a growing number of children without either English or Irish as the language of the home are selecting Irish-medium education (Ó Duibhir 2011).

A growing number of children from non-Irish speaking households is also becoming an increasingly prevalent feature of classrooms in Gaeltacht schools. A study of Gaeltacht schools in 2004, grouped the schools into three categories according to the predominance of Irish as a language of the local community:

> **Category A:** Schools located in areas in which 70%+ of the population speak Irish on a daily basis.
> **Category B**: Schools located in areas in which between 40% and 69% of the population speak Irish on a daily basis.
> **Category C**: Schools located in areas in which less than 39% of the population speak Irish on a daily basis. (Mac Donnacha et. al. 2004)

At the time of this study, there were a total of 142 primary schools and 31 post-primary (secondary) schools). Of those schools which responded to the survey, there were: 39 primary schools in Category A; 21 in Category B and 69 in Category C; and 9 secondary schools in Category A; 7 in Category B and 11 in Category C (Mac Donnacha et. al. 2004).

This study found that teaching is conducted in Irish in the majority of classes in Category A primary schools. Whereas this is also true in Category B schools, a small number of classes in these schools are taught primarily through the medium of English. (ibid:6). Language use in Category C schools is more mixed. In such schools, around half of the classes are taught in English or primarily through the medium of English. However, in those classes which are taught in Irish only or where more Irish than English is used, the study found that the use of Irish as the medium of instruction increases as pupils progress through primary school (ibid:6). It is a feature of Gaeltacht primary schools that the majority are small with only 1-3 teachers. Consequently, it is more of a challenge in such schools to accommodate the needs of pupils with a wide range of abilities in Irish and English. Furthermore, it is increasingly difficult to recruit teachers to both primary and post-primary schools in the Gaeltacht, particularly teachers with appropriate skills in teaching through the medium of Irish. This, compounded with a falling number of children from Irish-speaking homes, means that, there is an increasing amount of English used, particularly in Category C schools (Mac Donnacha et. al. 2004).

As regards the medium of instruction in *Gaeltacht* secondary schools, teaching through the medium of Irish is considered to be in a ‘state of crisis’:

> "*Of the schools participating in this research, 8 schools (2 schools in Category B and 6 schools in Category C) are teaching through English only or primarily through the medium of English. Even in post-primary schools located in strong Gaeltacht areas (Category A), over 10% of the teaching is through the medium of English in some of the traditional subjects*." (Mac Donnacha *et al.* 2004:12).

Irish-medium pre-school provision for 3-4 year old is available in *naíonraí* both nationally and in the *Gaeltacht* areas. The *naíonraí* located in English-speaking communities aim to promote the use of Irish as a second language while in the *Gaeltacht* the aim is to promote the maintenance of Irish as a first language among the children from Irish-speaking homes and as a second language for non-Irish speaking pre-schoolers (Hickey 2007). *Naíonraí* provide a form of total early immersion:

> "*The use of Irish only by the adults is intended to provide a context for the use of the target language and as a means to maximise the quantity of comprehensible input in Irish. Most children attending naíonraí, outside the Irish-speaking areas in the west of the country, are native speakers of English and are acquiring Irish as an additional language. Naíonraí aim to provide the opportunity to learn Irish as an additional language through a high quality curriculum delivered through the children's second language. Play is regarded as the main medium of learning, but as the practitioners are the principle source of input in Irish, they must maintain a highly vocal profile in order to provide input in Irish*." (Mhic Mhathuna 2008:2)

Catalan in Catalonia

Catalan had been the official and only language spoken in Catalonia for over 700 years when its official status was annulled in 1714 after the War of Spanish Succession (Artigal 1997). Castilian became the dominant language of the region as Catalan became progressively confined to the domestic and non-official domains. It was not until the early 1970's, towards the end of Franco's regime (1939 – 1975), that the teaching of Catalan in schools for a few hours a week was permitted (Urmeneta and Unamuno 2008). Following the passing of The Statute of Autonomy of Catalonia in 1979, the government implemented an optional Linguistic Immersion Programme which was initially prepared for children aged 3-7 but soon became extended to include children up to 12 years of age (ibid.) This was an early total immersion programme in which all instruction was in Catalan with content subjects being introduced gradually from Grade 3, when children were 8 years old.

The role of Catalan in Catalonia's education system was further defined in The 1983 Act on Linguistic Normalisation which stated as follows:

- "*Catalan is Catalonia's **own** (vernacular) language, therefore it is the language of education, at all levels.*

- *Children below six have the right to be educated in their family language, be it Catalan or Spanish. The authorities are obliged to guarantee this right.*
- *Catalan and Spanish are to be compulsory subjects in kindergarten, primary, secondary and vocational education.*
- *In order to be able to comply with their teaching demands, teachers must be proficient in both co-official languages*.
- *The language of the Catalan Education Authority shall be Catalan."* (English translation in Urmeneta and Unamuno 2008:230)

Additional legislation in 1992 which stipulated that Catalan become the 'working language' in pre-school, primary and secondary has led to Catalan being the main working language for the whole school community. And in 2006 the new Statute of Autonomy includes the right of newly-arrived students to receive special help to learn Catalan in order that they may integrate into the Catalan medium education system.

Catalan forms the principle medium of instruction in the Catalan education system. In the primary school sector, official figures indicate that over 90% of primary school classes are taught in Catalan and 49% of secondary school classes are also Catalan medium (see Table 7).

Table 7: Students in public and private schools by language in which classes are taught in Catalonia (1999 – 2000)

Language in which classes are taught	Infant and Primary %	Secondary %
In Catalan	92	49
Predominantly in Catalan	2	36
In Catalan and Castilian	2	15
No information	4	
TOTAL	100	100

Source: School census drawn up by the Catalan Teaching Service of the Department of Education of the Generalitat de Catalunya reproduced in Vila i Moreno (2008:35)

The dominance of Catalan as the medium of compulsory education has not been without its detractors, although it would appear that there is far less opposition to this model within Catalonia itself than in Castilian-speaking Spain (Vila i Moreno 2008).

Basque in the Basque Autonomous Community (BAC)

In 1979, Article 6 of the Statute of Autonomy of the Basque Autonomous Community (BAC) declared the co-official status of Basque and Spanish and in 1982, the Law for the Normalization of Basque acknowledged the right of every student to receive their education in Basque or Spanish and the right of parents to chose the medium of their child's education (Cenoz 2009). Up until that point, Basque medium education received no official funding, provision was limited to a few schools and there were very limited

Basque learning materials. No training was available for teaching through the medium of Basque and consequently very few teachers were capable of teaching in the language (Zalbide 2007).

Three main models of primary and secondary education emerged as a result of reinstating the Basque language's status in BAC society:

> **Model A** is intended for native Spanish speakers who chose to be educated in Spanish. Basque is taught as a subject for 3-5 hours a week (approximately 15% of classroom time). This model does not encourage pupils to learn more than a minimal amount of Basque. However, there are more recently A+ schools which provide additional Basque language instruction or use Basque as the medium of instruction for one subject.
>
> **Model B** is intended for native speakers of Spanish who wish to be bilingual in Spanish and Basque. In these schools, both Basque and Spanish are taught as subjects and used as the medium of education for roughly 50% of school time. There is considerable variation from one school to another regarding which subjects are taught through the medium of Basque or Spanish (Arzamendi & Genesee 1997).
>
> **Model D** was originally established as a language maintenance programme for native speakers of Basque with Basque being the sole medium of education (75% of school time) and Spanish and a foreign language, typically English, being taught as subjects (25%).

In BAC, there are single model schools. There are also schools where two or more models co-exist as separate streams within the same school (Cenoz 2009). In 1982, Model A type provision was by far in the majority, amounting to just under 80% of all educational provision while Model D and B provision was very limited. Over the past thirty years, there has been a phenomenal increase in the number of Basque-medium primary and secondary schools so that Model D is now the most popular form of provision (almost 60%) and Model A only accounts for just over 10% of provision in the primary and secondary sectors (Zalbide & Cenoz 2008:10).

As the popularity of Model D has grown, so too has the number of non-Basque speaking pupils in that form of provision. Furthermore, patterns of in-migration during the past ten to fifteen years have weakened the Basque-speaking social networks in the provinces where, until recently Basque speakers were in the majority or a significant proportion in the local community. Consequently, as in Scotland, Wales and Ireland, the proportion of children in Basque-medium education who come from homes where the language is spoken are increasingly becoming the exception rather than the rule (Zalbide 2007).

Considerable government investment has resulted in the development of a wide range of Basque language teaching resources and learning materials which are now available across all subjects of the curriculum, save for some vocational subjects (Cenoz 2009).

Investment has also been substantial with regard to teacher training. The majority of teachers in the BAC are now bilingual with some 21,000 having the level of Basque required to teach up to university level through the medium of Basque (Zalbide 2007). Nevertheless, it is still felt that a significant number of teachers still are lacking in oral proficiency, particularly those who have learned Basque themselves as part of in-service training (ibid.). As in other minority language contexts where a whole generation of the population had no access to their local language education, this lack of language skills presents a challenge for personnel resource development.

> "*While Basque language education has to a substantial degree won the struggle for quantity, that is not enough. We now need to concentrate on the quality of teaching through the medium of Basque, on the linguistic and curricular relevance of learning materials and, above all, in results*." (Zalbide 2007)

Another current concern among practitioners and researcher is the need to differentiate between learning needs of children who have a good command of Basque from its use in the home and Spanish dominant bilingual and non-Basque speaking homes. It is felt that there is a need to formulate more precisely-determined paths of learning for children from non Basque speaking homes, establish precise targets for them and develop examinations or other assessments to be achieved at given points in their school career (Zalbide 2007).

3.3.4 Two-Way (dual language) Immersion

Another model of immersion education which is relevant to the situation of GME in Scotland is **Two-Way immersion,** also referred to as Two Way Bilingual Education, Dual Language Education, bilingual immersion, double immersion, Spanish Immersion, and interlocking education (Baker, 2011). Two-Way immersion is largely found in the United States and typically aims to have a balanced number of minority and majority language students (often Spanish and English) who share the same classroom and where both languages are used separately as the medium of instruction (cf. Lindholm-Leary, 2001; 2005). In such schools, each language of instruction is kept separate from the other, with students either alternating their medium of instruction on a daily basis or on a subject-by-subject basis in order to typically achieve a 50:50 proportion of instruction through the medium of each language.

There are two main models of Two-Way immersion education. In the 50:50 model, an equitable balance of both languages is attempted throughout the early and subsequent years of schooling. There is also a 90:10 model which give more emphasis to the minority language, particularly during the Kindergarten (ages 5-6) and first grade (ages 6-7) with 10% allocated to develop oral language proficiency and pre-literacy skills in English (Baker, 2011). This balance typically changes to 50:50 by the time pupils are in

the 4th grade (ages 9-10) to 6th grade (ages 11-12), with English reading being formally introduced in the 3rd grade (ages 8-9). (Ibid.)

In addition to these two main models, another 'differentiated' model separates minority and majority language pupils for part of the day from Kindergarden to Grade 2 (ages 8-9). In the morning, pupils are grouped with their language peers to receive their native language instruction and then in the afternoon pupils are taught together using both languages. From Grade 3 (age 8–9) onwards, a 50:50 model is adopted whereby pupils of both language groups are integrated throughout the day (Baker, 2011; Howard *et al.* 2004).

'Two-way immersion' is a term often used to describe minority language immersion such as is found in Scotland, Ireland, Wales, Aotearoa/New Zealand and elsewhere, because such models typically group L1 and L2 minority language learners together in the same class. In the American type of 'two-way' immersion, there is a deliberate attempt made to balance the number of L1 and L2 learners in each classroom. There is also a policy of segregating and sequencing the concurrent use of two languages in the curriculum which is markedly different from the practice in the other aforementioned models. The practices employed in the American two-way immersion model are particularly pertinent when considering the best way to meet the different needs of L1 and L2 learners (see Section 4.2).

3.4 Learning the majority national language and modern languages

3.4.1 The European policy context

The Council of Europe places considerable emphasis upon and promotes 'plurilingual education' and the development of the 'plurilingual repertoire' of European citizens which is defined in policy documents as: "

> *"different languages and language varieties at different levels of proficiency and includes different types of competences. It is dynamic and changes in its composition throughout an individual's life*" (Council of Europe 2006:5)

In 1998, Recommendation No. R (98) 6 encourages member states to promote widespread plurilingualism:

- "*by encouraging all Europeans to achieve a degree of communicative ability in a number of languages;*
- *by diversifying the languages on offer and setting objectives appropriate to each language;*
- *by encouraging teaching approaches at all levels that use a flexible approach – including modular courses and those which aim to develop practical competences – and giving them appropriate recognition in national qualification systems, in particular public examinations;*

- *by encouraging the use of foreign languages in the teaching of non-linguistic subjects (for example history, geography, mathematics) and creating favourable conditions for such teaching;*
- *by supporting the application of communication and information technologies to disseminate teaching and learning materials for all national and regional languages;*
- *by supporting the development of links and exchanges with institutions and persons at all levels of education in other countries so as to offer to all the possibility of authentic experience of the language and culture of others;*
- *by facilitating lifelong learning through the provision of appropriate resources*." (Council of Europe 2006: 9)

The European Commission's Action Plan *Promoting Language Learning and Linguistic Diversity* (2003) promotes the learning of the mother tongue and two other languages (MT + 2) for all citizens. The plan states that efforts should be made to teach at least two foreign languages from an early age so as to help Europe "become the most competitive and dynamic knowledge-based economy in the world" (Council of the European Union 2004:8). The action plan formulates clear objectives for language learning at all stages of education (see: http://ec.europa.eu/education/doc/official/keydoc/actlang/act_lang_en.pdf for further details). As a consequence of this policy, the compulsory learning of an additional language is happening at an increasingly early stage, with some countries such as Spain and Luxembourg making it mandatory to learn another (foreign) language in the first year of schooling.

3.4.2 CLIL Content and Language Integrated Learning

The European Union refers to bilingual education in its member states as CLIL (Content and Language Integrated Learning) and EMILE (Enseignement d'une Matière Intégrée à une Langue Étrangère). The term 'immersion' tends not to be used at the supranational level even though the term is used by some nation states. This is largely in order to avoid association with 'immersion' as it is practiced in Canada and because many of the European initiatives either pre-date or have very different goals and methodologies to the Canadian model (Garcìa 2009).

CLIL is an umbrella term used to describe any type of educational programme in which a 'second', 'foreign' or 'modern' language is used to teach non-linguistic subjects. CLIL does not, therefore, refer to the use of Gaelic in Gaelic-medium education. In the European model of plurilingual education, Gaelic and English would be the 'mother tongue' language and the 'national' (or regional) language; and French, Spanish, German, Chinese etc. the additional 'foreign' or 'modern' language represented in the formula MT + 2. Most CLIL programmes adopt several features of 'second language immersion' by being the language of subject instruction. However, the amount of time spent learning the foreign language and being taught some subjects through the medium of the foreign language is typically far less intensive and does not take up

extensive proportions of curriculum time. CLIL programmes aim at achieving 'functional competence' in receptive and productive skills rather than native-like fluency, particularly when learning through the target language takes up a low portion of curricular time. Some CLIL programmes do designate a significant proportion of curricular time to teaching through the medium of a foreign language and these programmes can produce very high level of productive and receptive skills as well as teaching subject content to the required standard (see Marsh 2002).

Another feature of CLIL programmes is that they combine the teaching of the target language as a subject as well as using it to teach one or more additional curriculum subjects. At secondary school level, many schools have subject and language teachers working in tandem so that both types of lesson complement each other and so help develop student's language skills in a deliberately structured rather than haphazard way. This approach to language learning is felt to provide a more authentic learning environment in comparison with the more traditional foreign language teaching content which is heavily 'pseudo-real' and fictitious (Wolff 2002).

Research in CLIL contexts (e.g. Gajo & Mondada 2000; Gajo & Serra 2002) affirms that:

- student's first language develops normally despite a significant amount of curricular time being conducted in another language;
- the 'second'/'foreign' language develops better by being used as a language of instruction in non-linguistic subjects;
- content learning is enhanced and not affected negatively by being taught through the medium of student's additional language;
- CLIL education is typically appropriate for all kinds of students.

Experience in many countries also highlight the challenges involved in implementing the MT + 2 with a CLIL approach (e.g. Baetens Beardsmore 1999, Kaplan & Baldauf 1997; Marsh & Langé 1999; Marsh, Marsland & Stenberg 2001,) which include:

- There is typically an inadequate supply of teachers with adequate qualifications in a 'foreign' language and specialist subject to be able to teach their subject through the medium of the target language;
- There is, at present, very little specific training available for teachers to combine language and content matter;
- Teaching materials are often limited since materials produced in the 'foreign' language are often unsuitable because they are initially, linguistically too complex and do not always cover all areas of the local curriculum.
- Testing student's attainment in a curriculum subject taught through the medium of another language is not necessarily a straight forward matter.

Each of the above issues needs to be addressed if a CLIL approach to modern language teaching is to be adopted. The question of teachers' modern language competence has been addressed in research in Finland (Nikula & Marsh 1999) where it

has been shown that native-speaker-like competence is not always necessary or the best qualification in CLIL teaching. In other contexts, use is made of native speakers from other countries who have expertise in subjects such as geography or history who can contribute to teaching via VLE as well as being physically present in schools (see Johnstone 2002 for details).

3.4.3 GME + CLIL approach to modern language teaching

In Scotland, there is some experience of adopting a CLIL or partial immersion approach to the teaching of modern languages such as French and Italian (e.g. Crichton & Templeton 2010, Johnstone 2002). A comprehensive report on immersion in a second language at school (Johnstone 2002) evaluates different models of full and partial immersion in Canada and elsewhere internationally and considers the benefits and practicality of introducing immersion as a method for teaching language other than Gaelic in Scottish schools. The demonstrably higher levels of proficiency achieved in a foreign/modern language when taught using a CLIL 'partial immersion' approach, compared with the traditional method of teaching modern languages, make it worth considering as a dimension of GME.

There is a growing number of trilingual models of education in minority language contexts (Cenoz & Jessner 2000; Cenoz & Gorter 2006) which combine minority language MT + national/regional language + foreign language in, for example, the Basque Country (Basque + Spanish + English – see Cenoz 2009; Etxeberría 2004; Lasasabaster 2000); Catalonia (Catalan + Spanish + English – see Muñoz 2000) and Friesland (Frisian + Dutch + English – see Ytsma 2000; Gorter & van der Meer 2008). In each of these contexts, English is taught as both a subject and medium of instruction for part of the curriculum. In the following section, we present a brief description of the model employed in the Basque Country. This case study exemplifies the issues which would need to be considered with respect to incorporating the partial immersion teaching of a modern language into the current Gaelic medium education model.

3.4.4 Trilingual minority language education in the Basque Autonomous Community

In the BAC, almost 95% of children between two and six years of age attend schools where Basque is the language of instruction for the whole day (Model D) or part of the day (Model B) (Cenoz 2009). In 1991, several Basque-medium Model D '*ikastolak'* schools initiated a multilingual project in which English was taught in four 30-minute sessions each week in Kindergarten (Artigal 1993, Elorza & Muñoa 2008). 90% of schools in the BAC now introduce English when children are 4 years old with some schools introducing English even earlier. English is compulsory for all children from the age of six (Cenoz 2009). According to Cenoz (2009), the Basque Government has provided training and economic support for the development of teaching English from 4 years old, although the popularity of the move to introducing English early has meant that many schools have introduced English without government support. In the

government funded projects, teachers have been supported by meeting fortnightly with advisors to gain advice regarding teaching methodology in which:

- the teachers use only English in the classroom;
- the activities are oral, based on storytelling, songs and other oral activities;
- children's active participation is encouraged through collective dramatization and playing.

The rapid expansion in the teaching of English as a third language has been due to parental demand and a perception that early introduction of English will lead to greater proficiency (Cenoz 2009). Cenoz also reports that the teaching of English has not been without its detractors with criticisms including:

- concern that some schools might be teaching English at the expense of Basque;
- that there are not enough suitably qualified teachers;
- that the money spent in teacher education and material development could be used elsewhere.

Several studies have compared various aspects of students' proficiency in English depending on whether they have been 'early' (from age 4-5), 'intermediate' (from age 8-9) or 'late' (from age 11-12) starters. In studies which compared levels of proficiency according to the number of hours of English instruction they had received, late starters significantly out-performed the other two groups in most measurements (see Table 8).

According to Cenoz (2009:211):

- *Early starters have some advantages in some areas only, when they have received more hours of instruction than late starters and testing is carried out in the same grade.*
- *More exposure to the language can contribute to a higher level of proficiency, but the results do not prove that this exposure has to take place from an earlier age rather than in a more intensive way in later grades (see Muñoz 2006b, 2008b).*
- *The combination of an early start with a more intensive exposure by having English as an additional language of instruction will probably result in a higher level of proficiency*.

Table 8: Studies comparing the number of hours of exposure (adapted from Cenoz 2009:206)

	Area	Results
Cenoz 2003d	*General proficiency:* oral proficiency, writing, listening, cloze, reading	E, I, L: After 600-700 hours Late starters significantly better in most measurements
García, Lecumberri & Gallardo 2003, 2006	*Pronunciation:* vowels, consonants, foreign accent, intelligibility	E, I, L: After 600 hours Late starters significantly better in most tests, less differences between E and I.
García Mayo 2003	Grammaticality judgment task to test Pro-drop parameter	E, I, L: After 400 hours Late starters better in identifying sentences with missing subjects and subject-verb inversion but not in the 'that' trace
Ruiz de Zarobe, 2005	Subject pronoun omissions, number of words, utterances, language use in oral and written production	E, I, L: After 400 to 800 hours E produce more subjectless sentences and obtain lower results in other measures. In the third measurement I obtained better results than L in some measures but also had about 100 hours more of instruction (800 vs 700).
Lasagabaster & Doiz, 2003	Writing skills: holistic, fluency, complexity, accuracy, errors	E, I, L: After 700-800 hours L best scores in holistic scores and most measures of fluency, complexity, accuracy and the E the lowest. Mixed results in errors.

E = early starters, English from age 4-5; I = intermediate, English from age 8-9; L = late starters, English from age 11-12.

It has also been shown that the early introduction of English does not have any negative effect on pupils' attainment in Basque and Spanish (Garagorri 2002 and Goikoetxea 2007 cited in Cenoz 2009). One study which compared the listening comprehension and production in Spanish and Basque of 6-7 year old pupils who had been taught in English from the age of four and their peers who had no instruction English found that there was no difference in the Spanish proficiency of both groups but that the children who had been taught in English were better in production in Basque (Cenoz *et al.* 1994 cited in Cenoz 2009). These results are consistent with research studies in other contexts (e.g. Jessner 2006).

When to introduce CLIL in GME and Scottish mainstream education is a matter of weighing up the comparative investment costs and benefits of an early or late start. These issues are addressed in detail in the Scottish CILT report *Immersion in a Second or Additional Language At School* (Johnstone 2002).

It is worth re-iterating at this point that one of most unexpected yet consistent findings of heritage language programmes such as GME is that despite having very little curriculum time assigned to teaching through the medium of the local 'majority' language (English, Spanish, French etc.) pupils who are immersed in a minority language medium

education programme achieve comparable and better results in the majority language than their monolingual peers. This finding is significant because it has important implications for the assignment of curriculum and school time to minority (Gaelic), national majority (English) and modern languages. The minority language models reviewed typically aim to assign the majority (70%+) of curriculum time to the minority language. As the models presented illustrate, majority national languages such as English can be taught as a subject only, due to the fact that pupils are typically immersed in the majority language outside the school domain and because of the transferability of language skills in effective immersion teaching programmes. Consequently, there is some space within the school curriculum and school time more generally, as the Basque model indicates, for a CLIL approach to modern language teaching to be introduced in minority language immersion teaching contexts.

3.5 What models have been most effective in producing and maintaining fluent speakers of a minority language?

The models which are consistently shown in the research literature to be the most effective in producing fluent speakers of a minority language are those which implement the following:

- a total immersion experience in the minority language for both L1 and L2 children during pre-school;
- a total immersion experience in the minority language for primary pupils until at least seven or eight years old;
- continue to provide a predominantly minority language medium education throughout the remaining stages of compulsory education.

Experience in other minority language communities suggests that at least 70% of the curriculum subjects need to be taught through the medium of the minority language (e.g. Wales 70%+, Basque 75%, Irish 80%, Māori 81% +). It is generally considered that early total immersion is necessary for L2 learners of a minority language to gain fluency. However, programmes such as the ‘late immersion project’ in Wales (described in Section 4.1.4) suggests that pupils can gain the same skills when older in specifically tailored, intensive language programmes.

The educational models which are most effective in producing the largest numbers of minority language speakers are those who have implemented an early total immersion approach and predominantly minority language medium approach *throughout the entire school system*. In Catalonia and to a large extent, the Basque Country this has been achieved as part of their language ‘normalization’ policies. In these autonomous regions, the minority language education provision has now become the mainstream and it is now the traditional, predominantly Spanish-medium provision, which has become the less popular form of provision.

In contrast, in the case of Māori, Irish, Welsh and Gaelic the minority language medium education remains peripheral to the mainstream monolingual English-medium provision,

as is currently the case in Scotland. As such, while these minority language immersion models are effective in producing highly functionally fluent students on a school-by-school basis, the education system as a whole does not effectively produce enough minority language speakers to maintain and significantly grow the minority language speaking population in order to fully 'normalise' the status and societal functions of the minority language.

Another related issue is the extent to which the minority language is taught as a subject. The Catalan model avoids the teaching of Catalan as a subject and has prioritized the development of Catalan as the primary medium of instruction in compulsory education (Vila i Moreno 2008). In the Basque Autonomous Community, Model A provision which has traditionally only taught Basque as a subject has declined dramatically over the past twenty five years and now amounts to just over 10% of provision in the primary and secondary sectors (Zalbide & Cenoz 2008). Several model A+ providers are now providing additional teaching through the medium of Basque in order to improve the levels of Basque attained by pupils. However, there is also a debate in BAC regarding doing away with Model A provision altogether (Cenoz 2009).

Experience in countries such as Wales (e.g. Hopkins 2006) and Ireland (e.g. Murtagh (2007:450) demonstrates that teaching the minority language as a subject only is completely ineffective in that it fails to produce speakers who have any significant functional fluency in the minority language. In Scotland, there is no published evaluation of the effectiveness of Gaelic Learners in the Primary School (GLPS) and GLE provision. GLPS is a model of provision based on Modern Languages in the Primary School (MLPS) offered to schools throughout Scotland. Teachers are often not fluent speakers and very often have no Gaelic, support for continuing professional development (CPD) varies greatly and is inconsistent. There are no accurate figures for GLPS and whilst it is recognised that there are excellent examples of effective Gaelic being delivered to Gaelic learners, again there is a need for clear national guidelines to support teachers and Gaelic learners (HMIe 2011: 4). Given the added value of a CLIL approach to language learning, it would be worth considering introducing more use of Gaelic as a language of instruction in non GM schools as a step towards a medium to long term goal of expanding the bilingual education system in Scotland.

Finally, the extent to which schools can strengthen a minority language and culture effectively depends upon the extent to which a school integrates the minority language and culture in all its curricular and extra-curricular work. Effective immersion programmes emphasize the integration of *all* the pupils within the total school programme (e.g. Met and Lorenz 1997). Minority language streams or units located within mainstream schools are often perceived to be less effective than 'whole' schools at creating extensive opportunities for the use of the minority language outwith the classroom and so create opportunities for language use which foster greater levels of fluency among pupils, particularly L2 learners of the minority language whose opportunities to use the language are largely restricted to the school environment (e.g. May and Hill 2011).

3.6 What are the structural (and financial) contexts within which such models operate successfully?

3.6.1 Legislative framework

It is a common feature of each of the minority language models described in this report that they derive from the legislative framework which is in place. As we have indicated, the legislative frameworks of Catalonia and the Basque Autonomous Community and their 'language normalization' policies provide the strongest platforms for promoting the widespread use of both languages in their respective education systems as well as within the civil society more generally.

Wales and Scotland share a similar legislative framework with regard to Welsh and Gaelic. The development of Welsh-medium education has, however, been disadvantaged by its marginalization within the education system in Wales (see Jones, M. P. 2008 for a critique of the civil service in Wales). It is only since devolution that Welsh has gained cross-party support and only in 2010 that the first national strategy for Welsh medium education has been published, almost twenty years after the Welsh Language Act of 1993. In contrast, since the passing of the Gaelic Language Act in 2005, a comprehensive legislative and policy framework for the further development of Gaelic medium education is already in place. Gaelic Language Plans, like the Welsh Language Plans in Wales, provide a mechanism for developing and monitoring the promotion of Gaelic in public institutions and local authorities. In Wales, each Local Authority is required to develop an additional *Welsh in Education Strategic Plan* in which the LA has to set out their actions to expand their Welsh-medium provision. These Welsh in Education Strategic Plans are separate from the statutory Welsh Language Plans also required of each Local Authority and provide a means of agreeing more detailed targets for the promotion of Welsh in education than the general Welsh Language Plans afford.

3.6.2 Resources and materials

Crucial to the success of any immersion programme are the resources that are required to enable it to function adequately and the continued high level of commitment of all involved in the program, from policy-makers to teachers and students (Cummins 2007). In each of the models reviewed, considerable investment has been directed towards the ongoing production of high quality resources. Each of the models reviewed in this report have started from an initial severe lack of minority language teaching materials which, over time have become more extensive in their cover of the range of curriculum subjects.

In Scotland, there has been considerable investment in the development of Gaelic-medium resources by, for example, Stòrlann and Learning and Teaching Scotland as

well as a number of public bodies such as Scottish Natural Heritage (HMIe 2011). A report by Bòrd na Gàidhlig (2010) has identified a shortage of magazines, novels and ITC resources available in Gaelic. The HMIe report *Gaelic Education: Building on the successes, addressing the barriers* recommends that 'the potential for more groups and bodies to produce resources should be explored. In doing this, main partners should be assisting in ensuring that these resources are fit for purpose' (HMIe 2011:7).

3.6.3 Teacher training

In all the models reviewed, teacher training is one of the most pressing and ongoing concerns. In each context, there has been a need to grow and train an adequately qualified teaching workforce from a very low initial base. Catalonia, in particular, has invested very heavily indeed to ensure that educational practitioners as well as the wider civil service in its entirety have been trained to be able to conduct their work through the medium of Catalan. It is a common feature of all models that there is a perceived need for both pre-service and CPD training to address:

- teacher/practitioner fluency/proficiency in the minority language; and the
- specific requirements of teaching in bilingual and immersion contexts.

In cases where there is an inadequate supply of professional staff who are fluent minority language speakers, considerable use is often made of other fluent speakers as classroom 'assistants'. Team teaching is a feature of good models of bilingual education (Cloud *et al.* 2000; Lindholm-Leary 2001) as well as English second-language education (Bourne 2001). Making use of fluent speakers as classroom assistants has been found to support the language development of teachers/practitioner as well as providing pupils with fluent models.

In Scotland, teacher and practitioner training and CPD is also an important issue at all levels. Early Years practitioners vary greatly in their levels of training and experience (Stephen *et al.* 2010, 2011) and there is a recognized need to 'develop dedicated national training which combines early years and language development for GM provision' and 'develop effective mechanisms for sharing knowledge and practice' (Stephen *et al.*. 2010:Section 5.). With regard to primary and secondary level teachers, the recent HMIe report on Gaelic-medium education reports that there has been an increase in the numbers of teachers of Gaelic due to the improved access to initial teacher training via distance learning courses and collaboration between the universities and centres such as *Sabhal Mòr Ostaig* and Lews Castle College. The HMIe report concludes that 'there is effective initial teacher education but this is not consistent across all provision' (2011:14).

In Wales, a well established support structure for Welsh medium and Welsh as a Second Language[16] teachers is provided by the *Athrawon Bro* (Community/Area

[16] Welsh as a Second Language equates with GLPS and GLE.

Teachers) teams which operate in each local authority in Wales. These are specialist teachers who provide advice, support and promote best practice regarding the delivery of Welsh-medium and Welsh language education. The *Athrawon Bro* team is funded by a grant from the Welsh Language Board / Welsh Assembly Government.

3.6.4 Financial investment in bilingual education

It has not been possible to obtain any accurate and comparable figures for the financial investment in each of the minority education models reviewed in this report. The extent to which the Catalan and Basque models have succeeded in extending Catalan-medium and Basque-medium within the national education system points to far greater levels of financial investment than that committed to the other models.

An interesting report by Dutcher & Tucker (1996) provides an economic analysis of heritage language education in a World Bank commissioned report on the use of first and second languages in primary education. This report examined evidence from Canada, Guatemala, Haiti, New Zealand, Nigeria, the Philippines, and the United States (Navajo) and concluded that the recurrent costs for bilingual education are approximately the same as for traditional forms of mainstream education. Strong forms of bilingual education, it is argued make economic sense because they produce a more skilled, highly trained and employable work force (Dutcher 2004; World Bank 1997).

> *"Strong forms of bilingual education create cost savings for the education system and for society. For example, such bilingual education provides higher levels of achievement in fewer years of study. Student progress is faster, and higher achievement benefits society by less unemployment and a more skilled workforce.'* (Baker 2011:274)

This kind of economic perspective provides an argument for treating the investment in GM provision as part of a long-term strategy for the Scottish education system in its entirety rather than as a separate adjunct.

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4.0 Managing diversity, different needs and biliteracy in GME: Some insights from international research

At a policy level, the prescribed use of languages in 'models' of minority language medium education are often over simplified and at odds with the diversity and heterogeneity of school cohorts and the variety of classroom practices this engenders. Since the 1990's there has been an increasing number of research studies which investigate what goes on in classrooms in bilingual and multilingual contexts that are drawing attention to the heterogeneity of pupils and complexities of classroom practices. In this section, we have drawn upon this kind of research in order to address some of the challenges faced by GM education as identified in the research brief, namely:

- catering for variation in pupil entry language abilities and linguistic backgrounds;
- meeting the needs of first and second language pupils in the same class; and
- introducing and developing literacy skills in two languages.

4.1 Catering for variation in pupil entry language abilities and linguistic backgrounds

Diversity is a feature of contemporary minority language medium and immersion schooling. Contemporary processes of political and economic restructuring that lead to shifting patterns of migration mean that, in general, schools are more frequently composed of children from families with diverse ethnic roots and cultural and linguistic practices than they were in the first half of the twentieth century. Scotland is no exception. There are some 60 languages used in Scotland according to CERES (1999).

Diversity has always been a feature of the children who are grouped together in schools and classrooms. It is just that contemporary educational curricula are better at acknowledging and addressing children's diverse needs. There has been a tendency however, for the concept of bilingualism upon which immersion models have been founded to presume pupil cohorts are linguistically homogeneous. It is only during the last decade of the twentieth that research has emphasised the diversity of pupils' language abilities and linguistic backgrounds and the need to address these in the immersion classroom.

> "*Children do not enter school as cohorts with static and homogeneous language users. Their language practices cannot be added to in linear fashion, since the children come and go in schools at different times, in different grades, having different language resources. And they bring a variety of language practices to the classroom that interact with the language practices*

> *of school, changing their own and those of the schools. What is needed today are practices firmly rooted in the multilingual and multimodal language and literacy practices of children in schools of the twenty-first century, practices that would be informed by a vision starting from the sum: an* ***integrated plural vision***." (García 2009:8)

Such is the challenge which confronts minority language medium and immersion education throughout the world as well as in Scotland. GM pre-school and primary contexts provide rewarding yet challenging environments for teaching and learning, particularly when children are starting nursery with a wide variety of linguistic awareness and ability or come from a deprived socio-economic background. In the case of L2 immersion pupils, the main challenge, in such circumstances is how to best develop young children's acquisition of Gaelic when their development in English is still comparatively limited. These difficulties pose a greater challenge if there is no Gaelic in the home or community. Given that a very high percentage of children entering Gaelic medium education are predominantly non-speakers, practitioners require more training or support in order to best assess and meet the needs of every child in an immersion setting.

4.1.1 Immersion and pupils with additional learning needs

It can often be assumed by parents, the general public and some professionals that immersion and minority language medium education is not appropriate for children who have additional educational support needs (cf. McColl 2005) and that such children are best educated within monolingual mainstream provision. However, as the quotation below concludes, research evidence suggests that immersion programmes are suitable for almost all children, including those with lower educational abilities and learning disabilities (e.g. Edwards 1989; Wiss 1989; Ali Khan 1993; Rousseau 1999; Baker 2011).

> "*The research identified in the literature review and our own data leads us to conclude that children from diverse backgrounds should not be forced out of immersion programmes, as they would do no better in the English mainstream, but would lose the benefit of learning an additional language, at a cost to their self esteem*." (De Courcy *et al.* 2002:125)

Research in Canadian immersion settings has found that students with a below average IQ achieve as well across the curriculum in immersion programmes as their peers do in a monolingual programme (Genesee 1992). Other research in Canada has shown that pupils who were 'struggling' in French immersion classes, typically made no improvement in their academic achievement or in their behaviour if they were transferred to a monolingual English programme (Cummins 1984; Demers 1994). In Australia, research by De Courcy and colleagues found that lower ability children in immersion programmes achieved well in subjects such as mathematics. In this research, such students appeared to fare better in immersion classes and the

researchers concluded that this was partly due to 'the attention to language [immersion] teachers need to have' (De Courcy *et al.* 2002:117 in Baker 2011). This research reinforces the findings of previous research (Bruck 1978, 1982) in early French immersion programmes in which children with a 'language impairment' were found to not suffer any disadvantage from following immersion education in a second language. The conclusion would appear to be that in immersion teaching there is more 'care with vocabulary, sensitivity to language form and not just to language content' (Baker 2011:267). Furthermore, research in this area has shown that the skills and strategies pupils learn to overcome their learning or reading difficulties are transferable from one language to another, thus such support can help pupils achieve in both their languages (Edwards 1989). While immersion in a second language may not be appropriate for those pupils who have a significant language delay or disorder in their first language, a pupils' need for speech therapy is not necessarily considered to be a reason for avoiding immersion education (Baker 2000). In the case of 'gifted' children, research indicates that such pupils may require specially targeted support in order to best meet their needs and that immersion teachers are likely to need specific training to support the additional needs of 'gifted' pupils (Collinson 1989).

4.1.2 Language resources and assessments for pupils with different language profiles

Pupils with different language abilities and language support needs will typically require additional support to develop their knowledge of the target language than other 'higher ability' and 'native speaker' pupils, as the Scottish *Curriculum for Excellence* acknowledges:

> "*Teachers will give careful consideration to planning activities to ensure that children and young people with additional support needs are fully supported in their learning*" (Curriculum for Excellence: Literacy and Gàidhlig, principles and practice, www.curriculumforexcellencescotland.gov.uk, p.3)

In Aotearoa/New Zealand, for example, a series of language programmes called ***Kia Puta ai te Reo*** have been designed to support the additional language development needs and assess the language progress of pre-school pupils with different levels of Māori language abilities (Berryman *et al.* 2002 in May & Hill 2011). These four programmes are:

> ***Mihi*** – This resource has been designed for pupils who have communication difficulties, and is specifically designed to help parents support their children with hearing difficulties.
>
> ***Tata*** – Also designed for pupils with communication difficulties, this programme develops vocabulary and letter sound knowledge associated with the initial sounds of words.

Hopungia – Designed for pre-school pupils who can communicate in English but who need to develop their Māori language in order to participate successfully in Māori-medium education. This programme consists of various interactive activities such as barrier games[17] and collaborative stories. These activities are designed to broaden pupils' understanding of Māori and develop their fluency in the language.

Tukuna kia Rere – This programme is designed for pre-school pupils who have some knowledge of Māori but who need to strengthen and enrich their language skills. It is based on an English oral language programme called the 'One Hand Approach' which helps pupils build and link language using a hierarchical model of word and meaning associations.

Table 9 indicates the pre-school language needs each of the four programmes described above has been designed to meet. Pupils who begin pre-school communicating mainly in Māori will, given their greater level of proficiency in Māori, follow the standard Māori-medium curriculum and be assessed using the standard assessments such as *Aromatawai Urunga-ā-Kura* 'which are designed to ensure their ongoing extension in *te reo Māori*' (May & Hill 2011:81).

Table 9: *Kia Puta ai te Reo* resources and corresponding language ability

Level	Language ability of student	Corresponding programs
Level 4	Pre-schoolers who communicated in mainly poor English or Māori structures and vocabulary	Tata Mihi
Level 3	Pre-schoolers who communicated only in English	Hopungia
Level 2	Pre-schoolers who communicated mainly in English but with some Māori	Tukuna kia Rere
Level 1	Pre-schoolers who communicated mainly in Māori	Standard Māori-medium school assessments

Source: (May & Hill 2011:81).

Research based on the trial use of these programmes shows that there are increases in pupil performance when pupils follow these programmes (Berryman *et al.* 2002). It is also felt to be important that *Kia Puta ai te Reo* are resources which are based upon Māori ways of knowing and understanding as opposed to an English oriented method for developing and testing language skills.

[17] Barrier games are used to develop young children's language skills by focusing,for example, on giving and receiving instructions.

In Scotland, there has been no major development with regard to producing learning programmes to meet the needs of different groups of language ability as in Aotearoa/New Zealand. Pupils are assessed using existing guidelines to identify children's abilities and are grouped accordingly. Children who are entering primary school and are fluent or native speakers are not identified as a group who require specialised programmes of support. Teachers and practitioners will be aware of their pupils' individual language and learning needs but they may require extra Gaelic-medium resources to ensure they can support those needs.

4.1.3 Dealing with 'latecomers'

Dealing with those children who arrive 'late' is also an additional challenge for immersion programmes. Such children require support to develop their new language skills as quickly as possible and teachers need ways of integrating the new child in the activities of the classroom to maximise the new child's learning while minimising the possible detrimental effect on the language practices of the other pupils in the class. Several language-in-education policies pay attention and assign resources to providing this additional linguistic support to latecomers. In this section, we provide examples from Wales and Catalonia.

Canolfannau Hwyrddyfodiaid[18] **– Latecomers' Centres (Wales)**

In north-west and west Wales, one way of addressing the needs of new pupils with no prior knowledge of Welsh who can enrol in a Welsh-medium school at any time and any age, has been the establishment of Latecomers' Centres. These centres were first established during the 1980's and 1990's in response to the considerable in-migration of non Welsh-speaking families into rural Wales. Latecomers' Centres are partly funded by the local authority and partly by grant from the Welsh Government's *Grants to Local Authority's to Promote Welsh Education*. Pupils who arrive in Welsh-medium schools beyond pre-school age and without any prior knowledge of Welsh, typically need additional support to gain adequate Welsh language skills in as short a time as possible to achieve functional fluency in the language and enable them to maximise their learning in a Welsh-medium context. The nature of the provision varies in the different centres, however in each centre, the focus is upon learning Welsh language skills intensively and providing pupils with a positive and enjoyable experience learning the language. Pupils will often attend the centres to concentrate on developing their language skills for a period before returning to their chosen school to continue their Welsh-medium or bilingual education. Over the past thirty years, considerable experience in providing intensive Welsh language skills courses to latecomers has led

[18] This section is based upon the descriprion of Latecomers Centres found in Welsh Assembly Government 2009 *Welsh-medium Education Strategy, Consultation document No:067/2009*. Cardiff: Welsh Assembly Government. Also available at: www.wales.gov.uk/consultations

to the development of specialised teaching methodologies, language materials and resources. There is also a well established system of support structures for pupils and their families in collaboration with the schools.

> "*In recent years authorities have adapted the provision offered in their Centres in response to circumstances such as fluctuating levels of in-migration, financial constraints and the cost of transporting pupils to Centres, and new needs arising from changing language policies in schools. Some centres have recently piloted an extension of the traditional offer by providing intensive courses for other pupils requiring additional support to strengthen their confidence in Welsh-language skills, and by arranging for the services offered by the Centres to be delivered in the schools themselves*." (WAG 2009:40)

Athrawon Bro[19] (Wales)

Teams of **Athrawon Bro** (Community/Area teachers) work across Wales in an advisory capacity to support Welsh-medium and Welsh second language programmes of study (WAG 2009: 85). The Athrawon Bro remit varies from one local authority to another. In some local authorities, Athrawon Bro provide a core element of the intensive language support given to latecomers, either in the Latecomers' Centres or as separate provision. They provide tailored support individually and in small groups to pupils who require intensive immersion programmes in order to become assimilated in Welsh-medium schools as soon as possible. Athrawon Bro also lead on specific trial projects to promote progress in language skills and organise opportunities for pupils to attend residential courses (ibid.).

Support for latecomers and immigrants (Catalonia)

Since the late 1990's and the beginning of the twenty-first century, Catalonia has seen a shift in its in-migrant population which has changed from being predominantly Spanish or Catalan speakers from neighbouring territories to immigrants from many other countries. In Catalonia, several initiatives have been developed to address the growing need to support non Castilian/Catalan-speaking in-migrants.

Specific support for foreign students began with **tallers d'adaptació** (school adaptation workshops) which offered linguistic support for non Catalan-speaking children (Purtí 2006 in Vila i Moreno 2008). Another response to the increased heterogeneity in the education population has been to establish, in 2003, **Pla per la llengua i la cohesion**

[19] For further details, see: Welsh Assembly Government 2009 *Welsh-medium Education Strategy, Consultation document No:067/2009*. Cardiff: Welsh Assembly Government. Also available at: www.wales.gov.uk/consultations

social (Plan for the Language and Social Cohesion) which placed a strong emphasis upon connecting the learning of Catalan with the social and educational integration of in-migrant children. Central to this plan has been the **aules d'acollida** (welcoming classes) in which newly arrived children are immediately included in the mainstream classes and taken out of those classes for additional, intensive Catalan language instruction. Also, **Plans Educatius d'Entorn** (Educational Surrounding Plans) are plans whereby schools establish a network of co-operation with other educational agents such as local authorities and local cultural or social organisations in an attempt to involve the whole community in helping in-migrants (adults as well as children) to learn Catalan. Most recently, **Espais de benvinguda educative** (Educatorial Welcoming Spaces) have been created in a several cities. These are places where immigrant children can receive some initial understanding of Catalan and school life before being integrated in mainstream classes. (Vila i Moreno 2008:41)

4.1.4 Providing support during transition to secondary school

Late Immersion in Welsh-Medium Secondary Schools

For many years, several Welsh-medium secondary schools have been innovative in developing a system of late immersion in order to enable pupils from non Welsh-speaking backgrounds to gain the additional language skills they require to follow secondary school curriculum subjects taught through the medium of Welsh.

Since 2004, the Welsh Government has been funding a Late Immersion project in 10 secondary schools throughout Wales[20]. The main aim of this project has been to enable pupils who have not experienced Welsh-medium education at primary level to take up Welsh-medium education at the beginning of their secondary school career. Typically, the children who participate in late immersion have either attended an English medium primary school or the English stream of a bilingual (dual language) primary school. Late immersion programmes vary slightly in each secondary school. In summary, best practice includes:

- Being inclusive of the pupils of all English-medium primary schools in the county/ catchment area.
- Marketing the scheme effectively among target pupils and parents by, for example:
    - Beginning awareness raising and information dissemination as early as possible in year 6 (the final year of primary school when pupils are 10-11 years old) or year 5 (aged 9-10).
    - Inviting parents to an awareness raising evening.

[20] This summary of the 'late immersion' project is based upon two internal Welsh language Board documents: *Prosiect Addysg Drochi Hwyr* (Late- immersion Education Project) and *Papur ar Ddyfodol y Prosiect Addysg Drochi* (Paper on the Future of the Immersion Education Project).

  - Carry out visits to primary school by immersion co-ordinator (and deputy head teacher)
  - Arrange a 'taster day' for Year 5 pupils.

- Hold a 5-6 week intensive course in the secondary school at the end of the final term of primary education. During the intensive course, pupils typically have language lessons in the morning and a variety of Welsh medium activities, including field trips in the afternoon. In addition to developing language skills and raising the confidence and enthusiasm of pupils, the aim of the intensive course is to establish a cohort of pupils who can experience their transfer to high school as a group.

- Prior to the intensive 5-6 week course, schools have typically prepared pupils by arranging Welsh evening courses for pupils and parents or arranged preparatory language sessions for pupils by an *Athro/Athrawes Bro* (Community Teacher), or project co-coordinator.

- Ongoing support following transfer to secondary school includes:
  - Keeping pupils together as a group for up to two years[21];
  - Adapting their timetable during the first year in order to concentrate on their language development;
  - Providing time for staff to prepare (sometimes in collaboration with other subject teachers) specialist materials/resources;
  - Providing additional support sessions to pupils;
  - Providing feedback and support (e.g. with homework) to parents.

- An assessment framework for late immersion has been developed and evaluations of pupil attainment demonstrates that they achieve levels of Welsh fluency which are comparable or better than pupils who have followed Welsh immersion throughout primary school.

In Scotland, there is currently no system for supporting late immersion in Gaelic medium provision. Pupils are unable, in primary schools, to enroll in Gaelic medium beyond P1 or 2 as there is a lack of support staff who could provide extra tuition in order to bring their language up to a level wherein they could participate and learn effectively in a total immersion classroom setting. There is currently no provision either for pupils in GLPS who may wish to transfer to GM education. Given the growing demand for GME, it would be worth considering how best to provide intensive language support to pupils who wish to join Gaelic medium provision.

[21] In designated 'Welsh-medium' secondary schools, immersion students form a separate class from the other students in their year group for the first two years (Year 7 and Year 8 when pupils are 11-12 and 12-13 years old respectively) of secondary school. They are however, mixed in with other pupils during practical lessons such as Physical Education. From the third year of Welsh-medium secondary school (Year 9 when pupils are 13-14) onwards, immersion pupils are integrated with the other pupils for all their lessons. In Bilingual Schools however, pupils are typically integrated with the rest of their Welsh-medium year group from the outset (at the beginning of Year 7).

4.2 Meeting the needs of first and second language pupils in the same class

Meeting the needs of first and second language pupils in the same class is a considerable challenge and a growing concern in all of the minority education contexts reviewed in this report. Research into many dual language or two way immersion programmes has indicated that, when well implemented, pupils of both language groups do equally well and often better than their monolingual peers as regards academic achievement (Howard *et al.* 2003). Research also indicates that such programmes can enhance the self-esteem and motivation of the ethnic minority pupils (Lindholm-Leary 2001). However, an increasing number of researchers in the minority language contexts reviewed for this study, as well as elsewhere, are voicing concern that more attention needs to be paid to the way educators meet and manage the very different needs of first and second language children in minority language immersion settings (e.g. Hickey 2007; Hickey & Lewis 2009; Cenoz 2009).

The Scottish Government's *Curriculum for Excellence* recognises this challenge:

> "*A sensitive approach to the management of learning and teaching within groups which include children who are already fluent in Gàidhlig and those who are not will be particularly important*" (Curriculum for Excellence: Literacy and Gàidhlig, principles and practice, p.3)

Children's age is an important factor to consider with regard to developing pedagogies for supporting and extending pupils' cognitive abilities and linguistic repertoires. Whereas there is a move internationally to embrace and refine a multilingual and multimodal approach to teaching and learning with older age groups (see section 4.2.6), research typically emphasizes the need to set aside time in pre-school for an immersion approach during the early years (e.g. Romero & Parrino 1994).

4.2.1 Pre-school and early years

It is a feature of the new Early Years curricula being implemented in Scotland (and Wales) that pre-school education provides a child-led learning environment in which the emphasis is upon play and active engagement. As such, children are encouraged to spend most of their time choosing from the activities and resources set out for them and they spend a good deal of their time engaged in activities with other children without the supervision or presence of an adult. These pre-school curricula draw upon best practice worldwide. However, pedagogy designed, in both instances, for English-medium provision cannot necessarily be expected to support children's effective learning of Gaelic or Welsh without being adapted for that purpose. In Gaelic-medium and Welsh-medium playgroups, it is frequently the case that most or many of the children live in English-speaking homes and, for them, their exposure to Gaelic or Welsh is generally limited to the time they spend in a nursery or playgroup.

A recent study of young children's learning in Gaelic in three Gaelic-medium pre-schools (Stephen *et al.* 2011; in press 2012,) draws attention to the need to evaluate the way the early years curriculum is implemented in Gaelic-medium settings, particularly when nurseries and playgroups consist predominantly of children from non Gaelic-speaking homes. This study found that:

- children spent most of their time engaged in activities which involved other children and no adult (61-70% of the activities observed in 3 pre-school settings);
- children spent only short periods when they were gathered together in small or large groups to participate in adult-led activities such as singing and group story reading;
- the children spoke to each other in English and spent far more time speaking English than Gaelic in the playroom (see Table 10).
- the children's use of Gaelic occurred mostly when they were involved in adult-led story time or singing. There was also limited use of Gaelic in interaction with adults for certain functions such as name of the day, counting by rote, and classroom management expressions (e.g. during tidy up time) and asking permission to go to the toilet.

Table 10: Language spoken by children in the playroom

	Speaking English	Speaking Gaelic	Not speaking
Preschool 1	65%	20%	15%
Preschool 2	62%	8%	31%
Preschool 3	53%	13%	34%

Source: Adapted from Stephen *et al.* 2011:4

The research team concluded that while the children's observed use of Gaelic 'may be a helpful preparation for progression to the routines of primary school, it does not seem to equip the children with conversational or personally meaningful language at this stage' (Stephen *et al.*. 2011:4). In a context where children use English together and spend little time in adult-led Gaelic language activities, it is also difficult to see how such a context could nurture and sustain the linguistic development of any L1 Gaelic speaking children.

4.2.2 The balance of language background pupils in the same class

In the two-way immersion classes described in Section 3.3.4, there is always an aim to group roughly equal numbers of minority and majority L1 pupils together in the same class. However, even in 'balanced' classes, numerical balance between minority and majority language background pupils does not necessarily lead to a language balance among pupils in the classroom because of differences in language status and power

relations between English and other languages. Research in bilingual schools consistently shows that minority language pupils shift to the majority language of high prestige in order to gain peer approval (e.g. Baker 1997; Moffat 1991). In their large-scale study of two-way immersion in Miami, Oller and Eilers (2002) found that pupils tended to speak predominantly in English regardless of their age and the type of school they attended, even during the first semester in kindergarten. Numerous studies of two-way immersion have shown that it is the majority language which often dominates, particularly in interaction between pupils (e.g Alanis 2000; Potowski 2002; Howard *et al.* 2003)

Research studies (e.g. Carrigo 2000) consistently show that L1 speakers of a minority language will use more of their minority language when they are grouped with similar children. Such children tend to withdraw, talk less and use less of the minority language (their L1) when L2 speakers dominate in groups (Thompson 2000; Hickey 2007). When pupils are put into mixed language groups, there are low levels of minority language use by both kinds of pupils (e.g. Hausman-Kelly 2001; Howard *et al.*. 2003). In pre-school settings where young children have little or no minority language skills, it is unrealistic to expect them to use anything but English together and with their L1 peers.

4.2.3 Meeting the needs of L2 minority language learners

Initially, L2 minority language learners in pre-school immersion are necessarily slower to develop their target language acquisition than their L1 peers. In their first year of immersion, L2 pupils typically go through a 'silent period' as they develop their target language comprehension skills and use their first language to express themselves. In their second year, their productive use of the immersion language develops as they begin to catch up with L1 children. L2 children have usually developed their L2 fluency by the end of their second year of total immersion (Johnstone 2002).

In many immersion contexts, researchers report concerns with the accuracy of L2 children's acquisition of the minority language. In the Basque Country, for example, there is strong concern regarding quality and accuracy of Basque learned by non-native speakers and the influence of Spanish on Basque particularly with regard to the lexicon and grammar (Larringan & Idiazabal 2005, cited in Cenoz 2009). Hickey's study in *Gaeltacht naíonraí* (2007) also provides evidence of young children being modelled grammatically incorrect structures. Young L2 children need to be immersed in accurately modelled linguistically rich environments in order to maximise their acquisition of the minority language. The findings from the Gaelic-medium pre-school study by Stephen *et al.* (2011, forthcoming 2012) suggest that additional structured input in Gaelic through songs, story telling, puppets, role play, teaching assistant involvement in play as well as consistent use of Gaelic for classroom management are necessary to further enrich the Gaelic experience of young L2 children. Experience in other contexts also shows that parents can play an important role in introducing and supporting their children's learning of Gaelic in the home. In Wales, for example, the Twf project and Mudiad Ysgolion Meithrin have developed and promote materials and

resources to help parents learn Welsh and introduce Welsh in the home (songs, CD's, bilingual books, DVD[22] and *Cyw*, S4C's Welsh language television provision for pre-school and primary pupils).

4.2.4 Meeting the needs of L1 minority language speakers

In mixed L1 and L2 classes, it has been shown that there can be a tendency for teachers to focus on the needs of L2 learners at the expense of children who already have some knowledge of the target language. Hickey's research in Irish medium *naíonraí* provides evidence that some nursery group practitioners perceived non-Irish speakers' needs to be greater than those children who already had some knowledge of Irish before coming to the playgroup (2007). Her study also documents numerous ways in which playgroup language practices were more oriented towards L2 rather than L1 children. For example:

- by keeping input simple and consistent to help L2 children construct a basic vocabulary, L1 children were being modelled language forms which were attenuated and sometimes grammatically inaccurate;
- some teachers had delayed story telling and reading from books until L2 pupils had developed their minority language ability sufficiently to be able to participate in the activity;
- some teachers tended to model their language for L2 children by: asking fewer questions, asking questions which were designed to elicit one word replies, giving less feedback, model their language for repetition (cf. also Ramirez & Marino 1989; Mougeon & Beniak 1994);
- Teachers were not encouraging L1 children to enrich their language by requesting lengthy responses, modeling correct grammatical forms and extending their vocabulary.

Balancing the competing demands of pre-school children is a difficult task which is compounded by children's varying levels of language ability. Hickey's study (2007) of Irish-medium playgroups with children of mixed language backgrounds also provides evidence of fluent Irish-speaking children losing interest in interaction when adults repeat and adapt information in order to include children who are Irish learners. Furthermore, her study provides evidence to demonstrate that the use of Irish in the playgroups is not sustained or sophisticated enough to enrich the Irish repertoire of young Irish-speaking children. Research in Wales (e.g. Lewis 2008b) and the Basque Autonomous Community (Cenoz 2009) for example, also raise the same concerns. In the Basque Country, some teachers and parents have also expressed concern about the quality of Basque among pupils who are native speakers of the language and the need to nurture such pupils' development in Basque separately:

[22] Camau Bach and Camau Bach 2 are DVD's that have been produced specifically to introduce Welsh to babies and pre-school children.

> "*If we take the experience of many teachers to heart, it would seem that at present, the advantages gained by non-Basque speakers are frequently matched or even outweighed by backtracking among Basque speaking pupils. This does not mean that children of different home language backgrounds must be placed in different schools. It does mean however, that we should specially protect and foster the speech (and, in general, the facility for speaking Basque) acquired at home, if we wish to develop the potential for language normalisation to the full*." (Zalbide 2007:61)

In addition to the opportunity to support and enrich their language development, L1 children also need support to develop their skills in order to prevent marginalisation and low self-esteem (Siraj-Blatchford & Clarke 2000). Grouping minority language students together for mutual support and linguistic stimulation has been found to be important (e.g. with Mandarin students in an English pre-school (Feng *et al.*. 2004) and among Spanish-speakers in Spanish/English two way immersion Amrein and Peña (2000); Carrigo (2000) and Lindholm-Leary (2001)). Hickey 2007:62 argues that the need of minority children for mutual support and linguistic stimulation should not be sacrificed in order to promote integration with the majority groups. Just as parents can become involved in supporting their children's L2 language learning in the home, so Hickey (2007) reports can parents be encouraged to become involved in helping their children to enrich their L1, both in the home and being involved in L1 language enrichment activities in the pre-school setting.

4.2.5 Meeting the needs of both L1 and L2 pupils during the early years

Researchers have argued that it is more beneficial to address the needs of different groups of children through different activities than provide a 'lowest common denominator' approach. In many contexts, separation of children according to home language is advocated where possible during pre-school and the early grades of primary. For example, Mougeon & Beniak (1994) report the separation of English dominant and French dominant children during the early years in Canadian French immersion. Hickey (2007:61) describes how two *Gaeltacht naíonraí* that provided separate sessions for L1 and L2 Irish children were able to make the Irish input more challenging for the L1 Irish children and led to more use of Irish among the children and between the adult practitioners and children. In the Basque Autonomous Community, separating native and non-native Basque speaking pupils in the early grades in some schools has also been felt to help create a critical mass of similar pupils who can better withstand the dominating influence of Spanish (Cenoz 2009). A decision to separate children in this way often causes controversy and is initially regarded as elitist (e.g. Cenoz 1998; Hickey 2007). However, such arrangements become accepted over time when the advantages to each group are demonstrable.

It is not always possible to create separate sessions or classes for L1 and L2 children and in such contexts, it is advocated that pupils are grouped with other similar L1 and L2 children for some activities (cf. Baker & Jones 1998). Also seating arrangements and

pair activities can be organised to encourage interaction in the minority language and tailor input for different language children (Hausman-Kelly 2001).

Research in this area also shows quite clearly that L1 and L2 pupils require tailored language study programmes and resources. In Aotearoa/New Zealand, as we have already described in Section 4.1.2, producing separate language resources ***Kia Puta ai te Reo*** to support language learning of different kinds of children has had a beneficial impact on the language development of young children in Maori pre-schools. This kind of tailoring of work schemes and language development programmes needs to continue throughout individual children's school career.

In sum, therefore, responding adequately to the needs of both Gaelic and non-Gaelic speaking pupils requires:

- appropriate teacher training;
- L1 and L2 tailored curricula and work organization;
- resourcing of extra personnel to allow for regular group work organised according to language ability; and
- collaborating with parents to support their children's language learning.

4.2.6 Meeting the needs of both L1 and L2 pupils during higher primary grades and secondary school

Studies in second language immersion settings frequently find that L2 students don't necessarily attain full native-like fluency in the productive speaking and writing skills (e.g. ref). As concepts become more technical, abstract and challenging for pupils as they progress within the education system, there is a need for extra linguistic scaffolding for all pupils and for L2 learners in particular.

> "*For most bilingual children, and some bilingual teachers, it is cognitively, linguistically and operationally sensible to use both languages. It maximises both linguistic and cognitive resources, and helps achievement and progress. Thus, Dual Language education that insists on strict boundaries and compartmentalization between languages may be now both [sic] dated, difficult and unreasonable*". (Baker 2011: 229)

Translanguaging

Translanguaging, or 'trawsieithu' as the term was first coined in Welsh during the 1980's, has become a feature of managing bilingualism in Welsh-medium and bilingual schools in Wales (Williams C. 1996, 2000). Translanguaging is a term which has now been extended and developed as a key feature of contemporary bilingual/multilingual pedagogy and refers to the "responsible use of hybrid language practices to educate

and to enable effective communication in the classroom (Menken & García 2010: 259 n.2). Translanguaging is decribed by Colin Baker as, for example:

> *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. Thus translanguaging is more specific than the umbrella term "concurrent use of two languages* (Jackobson 1983, 1990)." (Baker 2000:104-5)

A research study into the classroom teaching and learning practices in primary and secondary school classrooms in Wales identifies two forms of translanguaging as being features of such classrooms. Firstly, the 'purposeful translanguaging' initiated and regulated by the teacher in which there is carefully planned and structured use of English and Welsh for different tasks and activities. Secondly, pupils also engage in their own incidental/ unplanned/ arbitrary translanguaging as they opt to use either or both languages to accomplish their work (Lewis 2008a; Jones, M.P. 2010). With both forms of translanguaging, pupils' ability in both languages needs to be well developed in order to benefit from translanguaging as a tool for learning (Lewis 2011). Translanguaging in a deliberate and structured way has, according to Williams (1994, 1996) and Baker (2003) the potential to lead to high academic achievement for bilingual pupils because of the way such techniques promotes a deeper and fuller understanding of the subject content and develops sophisticated bilingual language skills. HMIe (2011:5) reports on the way translanguaging is used effectively in GM contexts:

> "*Gaelic is used to good effect with English texts by ensuring that all related talking and writing is done in Gaelic. This includes, for example, the use of the internet for research. This may be considered to be the use of a high order skill whereby children are simultaneously translating from English to Gaelic to talk and write*."

Recent research in bilingual contexts generally calls for more flexible approaches to teaching and learning in order to respond to classroom realities which don't sit neatly within traditional pedagogic approach to teaching in bilingual contexts (Anderson 2008) and call for a more explicitly multilingual approach to teaching (Lin & Martin 2005; Creese & Blackledge 2010). Such studies recognize the importance of managing translanguaging and use of different languages within the curriculum and in classrooms in order to protect the position of minority languages, particularly in those schools where the majority of pupils come from homes where there is little or no use of the target minority language (cf. Lewis 2011). HMIe (2011:5) also draws attention to this issue in the contexts of GME and warns against the practice of allowing 'the use of English resources to lead to activities being delivered through the medium of English which takes away from the richness of immersion'.

Concurrent bilingual lessons

In Wales, a considerable amount of research (e.g. C. Williams 1995; Jones 2000) has also focused on managing bilingual teaching contexts, particularly when student numbers are too low to justify teaching certain subjects separately through the medium of Welsh and English. Table 11 presents an example structure of a 'concurrent bilingual lesson'. Such strategies for meeting separate L1 and L2 needs in the same classroom aim to minimize the amount of time teachers spend addressing the whole class and maximize group and pair work to facilitate student's opportunities to work through the medium of their selected language, or in ways which meet the different linguistic needs of different pupils.

Table 11: Example structure of a concurrent bilingual lesson

Period (minutes)	Welsh speakers	Non Welsh speakers	Teacher
5-10	Listen	Listen	Bilingual or English introduction
20	Welsh introduction	Group / individual work	With the Welsh speakers
20	Group / individual work	English introduction	With the non Welsh speakers
10-20	Group / individual work	Group / individual work	Circulating: individuals' chosen language
10-20	Respond – Welsh / English	Respond – English	Bilingual feedback

Adapted from Williams C. (1995) *Dysgu yn y sefyllfa ddwyieithog. Cyfres Datblygu Dulliau Addysgu,* Bangor: Y Ganolfan Adnoddau (in Jones, D.V. 2000)

4.3 Introducing and developing literacy skills in two languages

In indigenous minority language contexts, literacy for bilinguals typically aims for achieving fluency in reading and writing in two (or more) languages (Baker 2011). Developing literacy in the minoritised language is important for language revitalization because it provides a means of socialising children in their community's literature and cultural heritage; and also serves to increase the functions, uses and status of a language such as Gaelic.

In schools, literacy is traditionally and typically viewed as an 'autonomous skill' (Street 1984, 1993) and taught to develop pupils' 'functional' literacy which involves mastering the skills required to read and write as these skills are measured in standard forms of assessment. Many types of bilingual education including 'second language' immersion and 'heritage' or 'maintenance' models, typically adopt a view of biliteracy as literacy in two single and separate languages which can lead bilingual pupils to "sometimes fall short of accomplishing this functional competence in two separate languages as if they

were two monolingual individuals" (García 2009:339). Since the 1980's a sociocultural view of literacy (Street 1984, 1993) has emphasised how people learn and use literacy in culturally specific ways entailing complex social interactions. In this tradition, Hornberger has defined biliteracy as "any and all instances in which communication occurs in two or more languages in or around writing" (Hornberger 1990:213). Such a definition situates people's real world (outside schools) uses of literacy in social practices and emphasises the need to focus on literacy as the talk around texts as well as the written texts themselves. Literacy practices are also increasingly multimodal – associated with different visual or audio modes of communication (Cope & Kalantzis 2000; Kress 2003, New London Group 1996). García, Bartlett & Kleifgen (2007) have coined the term 'pluriliteracy practices' in order to caputure the multimodality as well as bilingual or multilingual (cf. Martin-Jones and Jones 2000) dimension of literacy. García (2009:340) defines four principles of pluriliteracy practices as:

- "an emphasis on *literacy practices in their appropriate sociocultural contexts*, as influenced by different cultural contexts and various social relations;
- the *hybridity* of literacy practices, especially as afforded by new technologies;
- the increasing *inter-relationship of semiotic systems*, a product of new technologies;
- *increased valuing of different literacy practices,* including those that have no place in school, and the drawing on different literacy practices to develop school-based literacy (García, Bartlett, and Kleifgen 2007)".

> "*What is important in pluriliteracy practices is that students develop the agency to use both languages in an integrated or separate fashion, depending on the sociocultural context in which they perform the literacy practice. But pluriliteracy practices encourage students to use any of their languages or modes of meaning at their disposal in order to make sense of all kinds of texts*." (García 2009:340)

4.3.1 Literacy in the Scottish school curriculum

In Scotland, the Curriculum for Excellence places considerable emphasis on "*being much more rigorous and explicit about the development and certification of essential skills, particularly literacy and numeracy; this requirement goes beyond pupils with specific difficulties to all pupils, including those entering higher education*" as recommended in HMIE's report *Improving Scottish Education* (2006:2)[23]

The Curriculum for Excellence: Literacy and Gàidhlig, principles and practice explicity states that:

[23] See, Curriculum for Excellence: Building the Curriculum 3, A framework for learning and teaching (p.9).

> *"Throughout their education, children and young people should experience an environment which is rich in language and which sets high expectations for literacy and the use of language"*. (p.2)
>
> "*teachers will plan clear structures for learning to further develop Gàidhlig language skills. The learning environment will be a literacy-rich and visually stimulating place, which will encourage language development which focuses on the correct uses of language and subject-specific vocabulary"*. (p2)
>
> *"The development of Gàidhlig grammatical structures, syntax and phonology are the responsibility of early years and primary practitioners and of Gàidhlig departments in the secondary. Teachers in all curriculum areas will reinforce accuracy in the use of the Gàidhlig language".* (p3)

It has generally been recognised by Gaelic medium practitioners that the Curriculum for Excellence endorses many practices which have been implemented by Gaelic medium teachers over the last decade and sits well with the language rich, highly stimulating and creative classroom settings provided by them. Teachers have often by the very nature of subject learning used this as the vehicle for language learning used cross-curricular or topic work in order to give the children the vocabulary required to grasp all the connections in each subject.

4.3.2 Literacy attainment in current GME provision

Research which focuses on the comparative reading and writing skills attainment of pupils in Gaelic medium and English medium education, generally concludes that while GME pupils initially (in Primary 3) have lower abilities in English reading and writing, that this gap has disappeared by Primary 5 (see Table 12 below). Gaelic-medium pupils typically out perform their English medium education peers in English reading and writing in Primary 5, Primary 7 and Secondary 2 (O'Hanlon *et al.* 2010; Johnstone *et al.*. 1999; Johnstone 2002). However, by primary 7, pupils in Gaelic medium had a lower attainment in Gaelic than in English, especially in reading (O'Hanlon *et al.* 2010; Johnstone *et al.*. 1999)

The research on literacy attainment in Gaelic-medium provision is echoed in similar research internationally with regard to the tendency for minority language-medium pupils to equal or surpass their monolingual peers in majority language attainment. Researchers conclude that, ideally, pupil's need to remain in an immersion programme for 8 years (at least 6 yrs) in order to develop their literacy skills fully. Shorter programmes typically do not provide students with skills they need, particularly in their second language (Ramírez 1992; Thomas and Collier 2002). Pupils who are confident reading in one language tend to be confident readers in two languages (Calero-Breckheimer & Goetz 1993; Jiménez *et al.* 1995). For minority language pupils in

heritage language programmes, learning to read in their home language first is considered to be beneficial. For them, learning to read in their home language will i) enrich their first language skills; and ii) promote their reading in English (Goldenberg 2008).

Table 12: Attainment in English and Gaelic reading and writing according to medium of instruction (based on data[24] presented in O'Hanlon *et al.* 2010)		
	Gaelic-medium	English-medium
Primary 3 (levelB)		
English reading	10%	34%
Gaelic reading	14%	-
English writing	4%	36%
Gaelic writing	12 %	-
Primary 5 (level C)		
English reading	62%	53%
Gaelic reading	65%	-
English writing	52%	43%
Gaelic writing	44%	-
Primary 7 (Level D)		
English reading	82%	74%
Gaelic reading	79%	-
English writing	70%	51%
Gaelic writing	68%	-
Secondary 2 (level E)		
English reading	76%	56%
Gaelic reading	73%	-
English writing	69%	48%
Gaelic writing	54%	-

Research by Howard *et al.* of pupils in 90:10 two-way immersion in the United States indicates that by the end of 5th grade, pupils aged 10-11 have attained expected mastery of reading and writing skills in both Spanish and English and demonstrate 'impressive levels of performance on oral language, reading and writing measures in English and Spanish' (Howard *et al.* 2004:32). For children in L2 immersion education, research in Canada and elsewhere has shown that learning to read first in a second language will lead to biliteracy when the child's first language is also the language of the majority community (Baker 2011), as is the case for children from non Gaelic speaking homes in Scotland. Research by Swain and Lapkin (1991), for example, indicates that

[24] The reader should refer to O'Hanlon *et al.* (2010) for comments regarding the sample and the statistical significance of this data as well as a full analysis of the survey findings.

developing literacy in two language provides a significant source of cognitive and curriculum advantage for bilinguals which probably helps account for their tendency to consistently equal or outperform their monolingual peers. Research reviews that have evaluated pupils' biliteracy development (e.g. Krashen 1996, 2002; Hornberger 1989; McKay *et al.* 1997; V. Edwards 1998; Bialystock 2007) consistently attest that acquiring literacy in one language will aid the development of literacy in another language and that the skills learned for reading and writing in one language will transfer to reading and writing in a second language, particularly when both languages use a similar writing system, as Gaelic and English do.

4.3.3 When is it best to introduce pupils to literacy in two languages?

The **sequential** view of biliteracy holds that literacy in a second language be introduced once a child has developed adequate fluency in speaking, reading and writing in one language (e.g. Hakuta 1986; Wong Fillmore and Valadez 1986). Also, in programmes that follow the sequential model, 'full transition to reading and writing in the child's second language is only made after the child has oral proficiency in the language to be read' (Baker 2011:344). Many studies have shown that reading proficiency transfers between languages (Groebel 1980; Elley 1984; Tregar and Wong 1984; Reyes 1987; Carson *et al.* 1990). Underpinning the transferability of linguistic skills across two (or more) languages is what Cummins has termed *Common Underlying Proficiency* or *Developmental Interdependence Hypothesis* (Cummins 1981, 1991) and Bernhardt & Kamil (1995) have called *Linguistic Interdependence Hypothesis*. Some researchers have argued that a certain level or *threshold* of proficiency in one language has to be achieved before skills can be transferred to a second language and that therefore children should achieve fluency and literacy in one language before starting to develop literacy in another (Hakuta 1986; Wong Fillmore and Valadez 1986). The sequential view of biliteracy informs many heritage language and minority language immersion programmes which, as in Gaelic-medium schools, typically do not introduce formal teaching of literacy in English until children are at least 7 years old.

There are, however, also researchers who demonstrate that children can learn to read in two languages **simultaneously** even while they are still developing cognitive-oral skills in a second language (Barrera 1983; Hudelson 1984; Edelsky 1986; Reyes 2001). Fishman (1980), for example, found that children in ethnic mother-tongue schools could acquire literacy simultaneously 'even when the languages differed significantly in script and discourse mode' (García 2009:345). Other instances of simultaneous acquisition of biliteracy are to be found in heritage language programmes in Canada (e.g. Beynon & Toohey 1991) and community language classes and complementary schools in England (e.g. Gregory 1996; Kenner 2000, 2004). In their overviews of biliteracy, Cummins (2000) and Hornberger (2002) both concur that literacy in a second language does not necessarily need to be delayed until children have a secure grasp of their first language literacy. Both do argue, however, that literacy development in the first language should continue until it is fully developed, whether literacy in a second language be introduced sequentially or simultaneously.

4.3.4 Teaching biliteracy across the curriculum

While it is necessary for educators to pay particular attention to literacy, "literacy is language and language is literacy" (Hudelson 1994:102). Literacy does need special attention but research in bilingual and multilingual educational contexts also emphasise that 'all language processes of reading, writing, listening and speaking or signing are interrelated and mutually supportive. Thus they need to be developed holistically.' (García 2009:337-8). Research in many diverse contexts (e.g. Met 2008) also demonstrates that when students are being educated through a minority language or a second language, then educators at all levels from pre-school onwards and across all subjects of the curriculum need to pay attention to developing student's language and literacy skills in order to deepen their understanding of the subject as well as enriching their language repertoires in general. For example:

> "*The implications for the critical interplay of language, literacy and academic achievement make it paramount that immersion teachers pay conscientious attention to language development. Every content lesson must be a language lesson as well, with particular attention to expanding students' repertoire of word knowledge, word families and word use*" (Met 2008:56)

While being immersed in authentic reading and writing in two languages teaches children biliteracy practices, emergent bilinguals who are developing literacy skills in a second language are in particular need of additional support. There is a tendency for the main responsibility for students' language and literacy development to rest with early years and language teachers, whereas it is clear from research that simply studying a subject through the medium of a minority or second language is not enough without, in addition, deliberate and explicit language teaching. This requires a shift in perspective, particularly, for subject teachers in post primary education – that they are language and literacy teachers as well as, for example, maths, science, history, and IT teachers.

4.3.5 Building upon pupils' home and community literacy practices

Pre-schools as well as subsequent stages in education need to be 'literacy rich' environments as the *Curriculum for Excellence* states. As Stephen *et al.* (2011, forthcoming 2012) have shown, while there is already some good practice in Gaelic medium preschools, there is also a need to provide further support to pre-school educators to enrich the Gaelic language and literacy experiences of young children, particularly with Gaelic story reading and other forms of Gaelic literacy.

Developing pupils' literacy practices in schools needs to build upon children's home and community literacy practices (Au 2006). In pre-school contexts, Kenner (2000) advocates 'celebrating' the diversity of the literacy practices young children encounter in their lives outside the playroom. Kenner describes creating displays of different texts, scripts and photographs of people engaged in activities involving literacy; encouraging

children to bring examples of texts from home (e.g. calendars, newspapers, posters, letters) and encouraging parents to be language and literacy resources and to help create materials which the children could then use in their imaginative role play. Such activities stimulated children's awareness of, and interest in, literacy practices which were meaningful to them and members of their family/community as well as providing contexts for them to develop through play, their early and emergent reading and writing practices. While Kenner's research has been conducted with ethnically mixed children in London, such an approach can be applicable in a Gaelic medium immersion context where there are occasionally children with home languages other than Gaelic and English. These children are from families where parents have a variety of languages and recognise the value of sending their children to a 'language rich' learning environment. The best practitioners will acknowledge the language of the home in a creative inclusive manner and it is important to encourage all teachers to use this positive example.

The importance of drawing upon pupils' background knowledge is a principle which is applicable at all stages of a child's education. Research has shown how readers do not make sense of the texts they read by relying solely on the phonemic/graphemic, lexical and syntactic recognition but also draw upon their prior knowledge and language practices (e.g. Ramirez 1994, 1995). For pupils who are developing their bilingualism, drawing upon their background knowledge in one language is particularly important in order to help them gain understanding of a text when they may have some gaps in their knowledge of textual features.

Helping pupils to make connection between what they know both in and outwith school in Gaelic, English and any other language helps enormously with their initial cognitive development as well as academic achievement as they progress through the education system. During the early years, research shows quite clearly that children who are familiar with print and story books in two (or more) languages develop an understanding that words are symbols that correspond to specific meanings more quickly than monolingual children (e.g. Bialystok 1997, 2001a, 2001b).

> "*Across all studies, the bilingual children outperformed the monolingual children by a large margin, often revealing more than a years' advantage in understanding this principle. On average, the monolinguals were correct about 40% of the time and the bilinguals, about 80% ... Just being exposed to two writing systems, or two kinds of story books, enabled bilingual children to appreciate that the written forms are the symbolic system from which the story emerges*" (Bialystok 2001c:22)

In her review of research on biliteracy, García (2009:353) summarises the following strategies for helping students become effective bilingual readers:

- expand the students' background knowledge for improved comprehension, and develop students' abilities to relate the text to prior experiences or learning;
- activate three types of schemata – *linguistic* schemata, based on prior language development; *content* schemata, based on prior knowledge of content; and *text* schemata, based on knowledge of rhetorical structure of the text (Carrel 1987);
- provide students with *explicit instruction* in such literacy strategies as previewing, skimming, adjusting reading rate, recognizing the author's purpose, making inferences, and separating fact from opinion (Jensen 1986);
- teach vocabulary and other structural aspects of the language and the text explicitly;
- encourage students to read *extensively* to become productive readers.

4.3.6 The importance of vocabulary

Oral language and, in particular, knowledge of vocabulary is essential to literacy. During the early years, the decoding of words and matching of sounds with their written symbols is an important first step in a child's literacy development (Met 2008). For pupils of all ages, learning new words and using them correctly requires encountering vocabulary frequently in multiple and meaningful contexts (Met 2008). Repeated opportunities for receptive and productive retrieval of vocabulary is essential for developing a student's vocabulary (Nation 2001). A study of children's participation in second language stories in an Irish language preschool (Mhic Mhathuna 2008) describes the way in which children experienced repeated story telling/reading at least four times a week. The books/stories that were chosen were interesting, short and repetitive. The target stories were linked where possible to the theme of the week and the staff also attempted to link the characters and happenings in the stories to the children's lives and the everyday routines in the playgroup. This approach to storytelling provided the children with a rich education experience as well as well structured language learning to support and extend their emerging bilingualism.

> "*The story telling method employed by the practitioners provided scaffolded input and also facilitated children's involvement at two integrated levels. On the one hand, there was the opportunity for them to complete the formulaic sentences of the story and on the other hand, the children were encouraged to use their initiative by describing the pictures in more detail and by making connections to characters in other stories and to their own experiences in the naíonra or at home*." (Mhic Mhathuna 2008:11-12)

In this *Gaeltacht naíonra*, the practitioners kept to the preschool's policy to use only Irish while expecting and allowing the children from non Irish-speaking homes to make use of

their knowledge and experience of the world through English during the very early stages of their acquisition of Irish.

At subsequent levels of education, providing pupils with the opportunity to develop an understanding of a wide range of vocabulary and textual features naturally means that the more a pupil reads of a greater variety of types of text, the more effectively they will absorb the meanings of an extended vocabulary. Researchers recommend providing as many opportunities as possible for extensive reading on a given topic. This can be a challenge when the range of texts and published resources are more limited in Gaelic and other minority languages than in majority languages such as English. While this is partly a matter for continuing to invest where possible in the development of Gaelic medium resources, experience in many contexts indicates the importance of involving parents and other community members as well as educators and pupils themselves as partners in producing authentic written texts and creating stores of literacy materials.

Research on the teaching of literacy in immersion contexts also emphasises the need for explicit teaching of vocabulary and language structures. Beck *et al.* (2002), for example, lists strategies for helping students to develop their understanding of word meanings and the contexts in which words are used which include:

- word association,
- sentence completion,
- questions and answers which focus on word meaning,
- eliciting examples from students to illustrate meaning,
- paraphrasing,
- summarising,
- re-telling with minor variations,
- using graphic organizers to develop vocabulary

It is beyond the scope of this study to present a description of the wide range of strategies which have been developed in different contexts to promote pupils literacy and language development in two languages. Examples worth investigating further would include Cummins *et al.*'s (2006) description of classroom projects in which effectively integrate literacy and technology; the *balanced literacy workshop method* of reading and writing instruction which combines language and literature-rich authentic activities (Honig 1996; Capellini 2005); explicitly teaching strategies to learn vocabulary to emergent bilinguals (Birch 2002); Curriculum Cycle for Writing (Derewianka 1990); and balanced literacy writing workshops (Calkins 1994, summarised for a bilingual context in García 2009).

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5.0 Conclusions and recommendations for the further development of Gaelic-medium education in Scotland

5.1 Conclusions

Gaelic-medium education shares many features with other successful models of minority language 'heritage' education and minority language immersion:

- There is an appropriate emphasis on the need for an early total immersion experience for young children in pre-school and during the early primary grades.
- There is an appropriate emphasis on maintaining an almost exclusively Gaelic medium delivery of the curriculum at primary level from P2/3 onwards.
- It is typical of many minority language contexts that secondary level provision develops more slowly than pre-school and primary provision. It is recognised that there is a need in Scotland to further develop GME in secondary schools in order to provide improved progression for GM primary pupils and to develop a Gaelic-medium skills base for the expanding use of Gaelic in the workplace.
- Attainment data confirms that GM pupils achieve results in English reading and writing and other curriculum subjects which match or better their EM peers at P5, P7 and S2. This is also typical of other successful minority medium/immersion education and demonstrates not only the cognitive benefits of minority language medium education but also that typically very little curriculum time needs to be assigned to the majority language in order to achieve native speaker levels of mainstream attainment.
- As elsewhere, the public demand for GM provision has increased in recent years, particularly at pre-school and primary levels which in turn leads to further demand at all levels including secondary.
- As elsewhere, there is an increasing number of children entering GME without prior knowledge of Gaelic and practically no access to Gaelic outwith the school.

In GME, as in other minority language heritage/immersion contexts there is an ongoing need for:

- continual development of GM teaching and learning materials and resources;
- continual and increased training of well qualified GM preschool practitioners and primary and secondary education teachers with regard to developing:
    - their own fluency and confidence in Gaelic;
    - their understanding of minority language immersion teaching;
    - their ability, even as subject teachers, to teach in ways that develop their pupils' bilingual language and literacy repertoires effectively;

- increased opportunities for GM practitioners and teachers to learn from each other and share resources.

The models of trilingual education reviewed in this report also demonstrate that there is scope for developing a European, CLIL approach which employs modern languages as a medium of instruction for selected curriculum subjects within the current GME model. When to introduce CLIL for modern language in GME and Scottish mainstream education is a matter of weighing up the comparative investment costs and benefits of an early or late start. As we have shown, research indicates that more exposure to the language can contribute to a higher level of proficiency, but the results do not prove that this exposure has to take place from an earlier age rather than in a more intensive way in later grades.

Given the experience in other minority language contexts reviewed in this study, Gaelic Learners would gain significantly higher levels of functional fluency if a CLIL approach was adopted for the teaching of Gaelic as a subject and as a medium of instruction for several curriculum subjects in EM schools. This could also provide a means of incrementally increasing the amount of Gaelic-medium provision available at secondary school level.

As is the case in other minority language contexts, the 'models' of minority language medium education as they are defined and prescribed in policy documents are often at odds with the reality of current classroom practice. In Scotland, as elsewhere, there is a growing awareness of a need to focus on classroom practices, identify best practice and share that best practice among practitioners and teachers through CPD, ITE and national guidelines. This report has considered some of the most pressing issues such as:

- meeting the different needs of L1 and L2 learners; and
- identifying effective classroom practices for developing and enriching pupils' bilingual language and literacy skills at all levels and across the curriculum.

The research on classroom practices reviewed for this study has also drawn attention to the need to carefully consider the function and role of English, (and any other home languages) in the Gaelic-medium classroom. This is an issue at all levels from pre-school to secondary. Research in GM pre-schools has stressed the need for re-conceptualising the Early Years curriculum and developing a pre-school pedagogy which is appropriate for Gaelic medium settings. This review has not been able to identify any research which investigates in detail the classroom processes of GM teaching and learning in primary and secondary schools. Research from other bilingual and multilingual contexts suggests that there is likely to be a need to develop a pedagogy which incorporates some deliberate and purposeful use of English in GM classrooms to support certain aspects of pupils' bilingual language and literacy development as well as their deeper understanding of curriculum subjects in a way which also protects the role of Gaelic as the main medium of teaching and learning.

Structural, financial and support implications

Our recommendations for the further development of Gaelic-medium education based on the evidence collected for this report are listed in section 5.2. The new National Gaelic Language Plan 2012-2017 acknowledges that there is a need for 'effective workforce and capital planning and substantially increased funding' with regard to the further development of Gaelic. If adopted in their entirety, our recommendations are concerned with a potentially radical re-evaluation of the Scottish education system and how it could be transformed over time into a dynamic model of bilingual/multilingual education which produces a highly skilled and well qualified workforce. Such a national model of bilingual/multilingual educational would be more in tune with the plurilingual education policy of the European Union than the predominantly monolingual mainstream model of education in the United Kingdom in which languages such as Gaelic are marginalised.

It is beyond the scope of this report to do more than outline some of the areas which would require further workforce planning, support development and investment. Our recommendations are intended to dovetail with the recommendations of other recent reviews of various aspects of GME provision and in particular, HMIe's report *Gaelic Education: Building on the Successes, Addressing the Barriers* (2011) and the *Curriculum for Excellence Gaelic Excellence Group: Group's Report* (2011) and should therefore be seen as part of a comprehensive review and strengthening of GME.

Some of our recommendations are concerned with harnessing the best practice which already exists within GME and providing continual CPD support to practitioners in order to disseminate and standardise such practice. We are recommending the establishment of a team or network of experienced practitioners who, like the *Athrawon Bro* in Wales, would provide specialist bilingual/multilingual education support to teachers and practitioners. In Wales, the *Athrawon Bro* network is partially grant funded by the Welsh Language Board and partially funded by local authorities. A detailed breakdown of such network costs should be obtainable from the Welsh Language Board. Further use of ICT networks such as GLOW could also be used for this purpose which would require relatively little additional funding.

We are also making some recommendations which address the additional language support needs of particular groups of pupils. These are partly identifying a need for additional Gaelic medium resources which could be funded from several possible funding sources. With respect to our recommendation for providing 'catch up' immersion support for 'latecomer' pupils, then again details of the way such support is financed in Wales (partly LA and partly Welsh Assembly Government/Welsh Language Board grant) could be obtained from the Welsh Language Board.

Finally, a breakdown of some of the structural, financial and support implications of introducing a CLIL approach to the teaching of modern languages within GME and as a means of extending GLE provision in EM schools are addressed in the Scottish CILT report, *Immersion in a Second or Additional Language At School: A Review of the*

International Research (2002). Piloting such an initiative in selected schools would provide a means of assessing the most appropriate way forward with such a development.

5.2 Recommendations

- In accordance with HMIe's (2011) recommendation for written national guidance for Gaelic Medium Education, such guidelines should also include guidance on:
    - the continuous development of GM immersion from one stage to another from 3 – 18;
    - when to make the transition from the 'total immersion' to 'immersion' phase, in order to ensure consistency in primary provision;
    - how to identify children's 'readiness' for the formal teaching of English or simply delaying the introduction of 'formal' English until P3 in all GME classrooms.

- An appropriate pedagogy should be developed in order to implement the pre-school Curriculum for Excellence effectively in Gaelic-medium settings. National guidance on GM pre-school provision should address the need for all pre-school practitioners to gain:
    - fluency in their own Gaelic language repertoire;
    - a full understanding of bilingualism and language acquisition in minority language immersion;
    - expertise in teaching practices for managing and supporting the diverse language and education needs of Gaelic and non Gaelic-speaking children;

- Continuous CPD should be provided for all practitioners at pre-school, primary and secondary levels in order to:
    - share best practices in minority language immersion and Gaelic-medium teaching; and
    - achieve excellence and consistency in the way all teachers (including subject teachers) develop and support their pupils' language and literacy learning in GME.

- Bòrd na Gàidhlig and Education Scotland should collaborate to actively encourage more use of networks such as GLOW to ensure all GM teachers/practitioners have access to new resources and training.

- Bòrd na Gàidhlig should consider establishing a team or network of experienced GM teachers who could provide support and advice to GM and GL teachers at all levels of Gaelic-medium provision.

- Practitioners should be encouraged to use IT more effectively as a tool for engage in IT teaching between schools, LA's through, for example, Virtual Learning Environment (VLE), Skype and video conferencing

- Gaelic language programmes should be developed to support children with learning needs and who may require specific language support.

- Bòrd na Gàidhlig should consider how best to provide Gaelic language instruction and support to 'latecomer' pupils so that they can join GME at any stage.

- Provision should be made to give extra Gaelic language support to Gaelic learners in order to help them move into Gaelic medium education.

- Bòrd na Gàidhlig should consider piloting the introduction of a CLIL approach to modern language teaching as part of GM provision at primary and/or secondary levels. Such an initiative should be monitored and evaluated in order to determine whether such a model could gradually be developed more widely.

- Bòrd na Gàidhlig should initiate a wide ranging review of Gaelic Language in the Primary School, in order to evaluate the effectiveness of such provision and identify how best such provision should exists in parallel to GME. The Bòrd should also consider the possibility of introducing a CLIL approach to the use of Gaelic as a medium of instruction for selected curriculum subjects in non GM schools.

- Following Curriculum for Excellence guidelines, secondary schools should be encouraged to integrate Gaelic or minority culture into more curricular areas and extra-curricular work.

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