# Blended Learning to Support Minority Language Acquisition in Primary School Pupils: Lessons From the 'Taking Gaelic Home Study'

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## Abstract

Gaelic is a minoritised indigenous language of Scotland, with its traditional heartland in the rural north-west of the country. The education system, and in particular Gaelic Medium Education (GME), has been recognised as an important strand of the language maintenance and support initiatives. The provision of GME has grown significantly since its inception in the early 1980s, it remains on the '*periphery*' of the education system, with around 0.9% of all primary school pupils enrolled in GME settings. The ongoing language shift from Gaelic to English, a process that has been particularly pronounced in the traditional heartlands of the language, and the resulted decline in the use of Gaelic as the language of the home, the family, and the community, raises the question of how GME can contribute to a sustainable future for Gaelic.

This article will discuss the findings of a small-scale mixed method practitioner enquiry study, which incorporated parental questionnaires, classroom observations, class-based language assessments and focus groups, to explore the use of blended learning approaches to enhance the development of language skills. The results of this study, conducted initially to evaluate the impact of the Covid-19 school closures on the linguistic proficiency of children in Primary 1 to Primary 3 enrolled in GME, show that pupils who were actively engaged in online learning activities showed a greater confidence and proficiency in their use of Gaelic compared to their peers who had not used these materials to support their learning, as well as increased involvement of caregivers in these Gaelic homework tasks. These findings allow for a re-imaging of approaches to homework in minority language immersion contexts to support the acquisition and use of the minority language beyond the classroom.

*Keywords*: *minority language immersion education; Gaelic; parental engagement; homework; blended learning; language acquisition*

## Introduction

### *Gaelic in Scotland*

Scottish Gaelic (Gaelic) is an indigenous heritage language of Scotland. Although once widely spoken across Scotland, over the centuries both the number of speakers of the language, and the areas where the language is spoken by the majority of the population, has significantly reduced (McLeod, 2020), with English becoming increasingly the dominant language across the country. This language shift meant that by 2011 only seven parishes remained where over 50% of the population self-reported to be able to speak Gaelic, all of which were in Comhairle nan Eilean Siar, the most north-westerly of Scotland's 32 local administrative regions (Mac an Tàilleir, 2010).

The dramatic decline in speaker numbers from 254,415 in 1891 (Thomas, 1998) to 57,375 in 2011 (National Records of Scotland, 2015a), coupled with changes to the way the language is used, especially in the home, family and community, by those that can speak Gaelic, has resulted in the language being categorised as a '*definitely endangered*' language (Moseley, 2010). One further consequence of the changing sociolinguistic profile of Gaelic has been the reduction in children acquiring Gaelic in the home and the family through intergenerational language transmission, even in households where one or more caregivers[1] are able to speak the language (Birnie, 2018; National Records of Scotland, 2015b). This has moved the focus of language acquisition in children to the education system, and in particular Gaelic Medium Education

## Gaelic Medium Education

Gaelic Medium Education (GME), in its current format, was established in 1984, with 24 children in two settings, one in Inverness and one in Glasgow (MacLeòid, 2007). GME is based on the principles of minority language immersion established in the 1960s in Canada (for the teaching of French to speakers of English) (Genesee & Jared, 2008), and aims to ensure that children achieve equal fluency and literacy and Gaelic and English and feel equally confident in using both languages in a range of situations and domains (Her Majesty's Inspectorate of Education [Scotland], 2011). The availability of GME expanded rapidly until the first decade of the 21st century after which the availablity of GME in Scotland has remained broadly the same, although the number of enrollments have continued to show a year-on-year increase (for a discussion of the challenges that GME has faced in terms of growth, see Birnie, 2021a).

In academic session 2020 / 2021 (the period that this study was conducted), GME primary education was available in 15 out of the 32 local authorities, with 3,801 children enrolled (Morgan, 2021). Children can enter Primary 1 (P1) aged 5, either directly or after attending (Gaelic medium) pre-school provision, with limited or no knowledge of the language, and the GME model has been conceptualised with a focus on developing language skills, especially in the first three years of primary school. This stage has been described by Education Scotland (2015) as the total immersion phase, where Gaelic is the medium of instruction for all the curricular content, this is then followed, typically for the remaining four years of primary education, by an immersion phase, where all the curricular content continues to be delivered through the medium of Gaelic but where the children are also introduced to English (Her Majesty's Inspectorate of Education [Scotland], 2011). The expectation of this phase is that the majority of teaching and learning in GME will take place through the medium of Gaelic, although the extent to which English is included can vary significantly (O'Hanlon, 2010), with an overall aim of ensuring that children achieve equal fluency and literacy in English and Gaelic as well as feeling equally confident in using both languages in a range of situations and different domains (Education Scotland, 2015). This, therefore, raises the question how effective GME is in ensuring that children reach this '*equal fluency*', which, in itself, might be considered an indicator for later language use (Dunmore, 2015) and thus the future of Gaelic as a spoken language in Scotland.

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**Minority Language Immersion**

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## Language Learning Outcomes

Hickey (2007) has suggested that minority immersion language education often involves teaching children who already speak a majority language, a second language (L2). This teaching is based on the implicit assumption that children will resemble monolingual children in developing their language skills, and language outcomes can, therefore, be evaluated against that expectation

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[1] Throughout this article the term 'care-giver' will be used in recognition of the varying home contexts of the children and be taken to mean the person or persons having the primary care of the children.

(Hermanto et al., 2012). Ó Duibhir (2018), found that the immersion minority language classrooms are not acknowledged as being a language learning environment, but that, instead, the target language is delivered as if children are acquiring their first language (L1), with the aim to promote the acquisition of, and fluency in, this language in a naturalistic way (Ellis & Shintani, 2013). However, as identified by Pinter (2011), children in immersion programmes such as GME, already speak and '*know*' one language and the way that a second language is learned is different from the way in which they acquired first language (or languages) – the L1.

The context in which the target language of the immersion programme is acquired is very different from that of the L1. The L1 is typically acquired in the home and the family, and in many circumstances, this will also be the language of the community. According to Doughty and Long (2005) children will typically be using their L1 processing skills and strategies in their comprehension of the target (minority) language that is used for instruction. This means that when children receive input in the target language, they might not focus on the structure and forms available to them and may not always use these correctly, although their understanding of the target language can be more strongly developed. Hermanto et al. (2012) have suggested that there is a disassociation between children's home language(s) and the language of schooling in terms of linguistic and metalinguistic skills, with skills in the target language (the language of instruction) being significantly lower than the home language(s). This is also the case for many children enrolled in GME, with Landgraf (2013) in her research on the linguistic competences of GME pupils finding that children made many grammatical and syntactical errors in speaking and writing Gaelic, where the influence of English on Gaelic was very clear and where Gaelic vocabulary was imposed on English grammatical structures rather than the idiomatic Gaelic constructions. These results, mirror the findings by Hermanto et al. (2012) in the Canadian context, and Ó Duibhir (2018) in Ireland, that immersion education might not result in '*native-like*' proficiency.

To acquire the correct grammatical constructions, children have to be provided with opportunities to develop these in both languages (Conboy & Thal, 2006). This is made more complicated by the nature of most (early) primary classrooms, with teachers providing most of the input (and children passively receiving the instructions), thus further developing their comprehension skills without much opportunity for production of the language especially in spoken contexts. (Ó Duibhir, 2018). Furthermore, children will also be surrounded by their peers in the classroom. These peers will be at (approximately) the same level and will be making the same linguistic errors without any mechanisms for natural corrections of mistakes made (Ellis, 2008). Children's peers have a great influence on the level of acquisition and language use, especially where the language of the social settings and peer culture is not the same as the language of the education setting (Baker, 2003).

In the case of GME, this is evident when the language used in the playground is analysed; research has shown that even in settings where all the children are able to speak Gaelic (and are enrolled in GME), the language of peer-to-peer interaction outside of the classroom, where the teacher acts as the language gate-keeper and there is an implicit Gaelic language policy, will be English (Nance, 2020). This is (further) amplified through the way GME provision is typically set up. GME classes are frequently multi-composite, with children from different years groups being taught together in one or two classrooms in an otherwise English-medium school. This means that the language of the playground and the school social life, as well as the wider (school) community is English. Baker (2003) has suggested that the limited use of the language in other domains, and its links to the formal domain of school rather than peer culture affects the children's perceptions towards the language. In the case of Gaelic, research has shown that children perceive using the language as an act of performance rather than a communicative tool (Smith-Christmas, 2016). These perceptions towards the overall usefulness of Gaelic have

implications for the wider ideologies of children towards the language and their perceptions around the 'usefulness' of Gaelic to their (future) lives (Makihara, 2013; Oliver, 2006).

## The Home Environment

A further complication that affects the outcomes of GME and influences the opportunities for Gaelic use in Gaelic Medium educated children is the linguistic home environment. To support language acquisition and foster positive ideologies towards Gaelic, Dunmore (2017) has suggested that a greater focus needs to be placed on children's language socialization within the home and the community. This has been made more complex by the changing sociolinguistic profile of the language, where, even in the Gaelic heartlands and communities where most of the population can speak the language, Gaelic has (mostly) disappeared as a tool for daily communicative functions (Birnie, 2021b). This leaves the home and family domains – named by Fishman (1991) as the *sine qua non* of language revitalisation efforts. However, as an analysis of the data from the census (National Records of Scotland, 2015a) has shown, the majority of children enrolled in GME live in households where the caregivers do not speak Gaelic. Indeed, GME (where provided) is available, and indeed promoted by language support agencies such as Bòrd na Gàidhlig and Comunn nam Pàrent, to all children regardless of their prior linguistic exposure to Gaelic or family connections to the language.

Ule et al. (2015) have identified that the decisions made around education are based on parental choices rather than children's agency. This is particularly the case for GME. GME is a parental choice (Johnstone, 2002), with caregivers actively having to opt-in, with the exception of children starting their education in Comhairle nan Eilean Siar, who are since 2020 enrolled in GME, with caregivers being asked to opt-out. O'Hanlon et al. (2010) identified that there are several reasons why caregivers opt to have their children educated through the medium of Gaelic, which might include associations with heritage, with personal links to the language (for example older family members speaking the language), but also links to local and national identity. Other reasons cited by caregivers are not related to Gaelic but linked to the wider associations of the (perceived) benefits of bilingualism and the associated cognitive advantages (O'Hanlon, 2014; O'Hanlon et al., 2010). Further, caregivers also identified more localized drivers for opting for GME, including the availability of GME in their area, the reputation of the school (O'Hanlon et al., 2010) but also the (potentially) smaller class sizes (Birnie, 2018; Stephen et al., 2011) can play a role in the decision making process. The choice for GME is complex; with many caregivers not being Gaelic speakers themselves, but even where they can speak the language, the choice is not always a straight-forward one. Where caregivers can speak the language they frequently question their own ability to support their children's learning through the medium of Gaelic (O'Hanlon, 2014), mirroring the findings by Kavanagh and Hickey (2013) in the Irish context, where it was identified that a lack of (literacy) skills in the language of schooling acted as a significant barrier to enrollment.

Epstein and Sheldon (2002), building on the ecological framework of Bronfenbrenner, have identified that there are three contexts in which children develop and learn: the family, the home, and the community, and that partnerships must be developed between these three areas to meet the learning needs of the child. Children's educational outcomes are influenced by parental involvement supporting both motivation and achievement, with Howard et al. (2003) identifying these as particularly important to support the target language outcomes of immersion programmes. As identified by Epstein and Van Voorhis (2012), homework can act as a natural connector between the school learning environment and the home, with Katz et al. (2014) suggesting that homework is unique in that it involves the interplay between home and school.

Caregivers consider homework to be one of the main ways in which they can engage with their child's education (Rudman, 2014) and if they feel that they are unable to support their children with these tasks, they are more likely to avoid contact with the school (Fitzmaurice et al., 2020).

According to Ule et al. (2015) caregivers can play different roles in supporting homework, which might include the supervision of children, providing additional support or equipment, but also providing the psychological and mental support to accomplish the tasks. Green et al. (2007) have suggested that caregivers' perceptions of self-efficacy and competence about their capacity to make a contribution to their children's learning outcomes will also influence their level of involvement, mirroring the findings by Kavanagh and Hickey (2013, p. 440) that a lack of parental confidence could result in *"feelings of invalidation as an education partner"*, particularly in contexts, such as GME, as Fitzmaurice et al. (2020) have identified that teachers expect caregivers to support their children's literacy and language skills through listening to reading or spelling, which might be particularly challenging where the language of schooling is not a language the caregivers are proficient in. This, in turn, can result in negative parental attitudes towards the homework tasks. Attitudes of the caregivers towards homework are important (Hornby & Lafaele, 2011) with any negative attitudes impacting on the child and their motivation to complete any home-learning tasks (Hutchison, 2012) (Head, 2020) with Patall et al. (2008) suggesting that the way caregivers are engaged, as well as the children's ability and age, resources, and parental attitudes also contributing factors to children's engagement.

Epstein and Van Voorhis (2012) have suggested that homework tasks that actively require parental engagement have a more positive effect. One such way to support parental engagement is the use of digital technologies (Head, 2020), which, as identified by Reay (2005), have the opportunity to bring the demands of the school more directly into the home, especially for younger children where parental support to access these might be required. The use of digital technology has increased, especially during the school closure period, and this was particularly the case at the time of the study where there had been a rapid development of different online resources to support Gaelic language skills in young people, as well as general resources in the language for supporting other aspects of the curriculum. This increase in online materials, coupled with a greater familiarity of teachers, children and their caregivers with these resources, coupled with the challenges of supporting minority language acquisition, formed the basis of this study which aimed to evaluate whether blended learning could be used as a means to encourage greater involvement with the homework tasks, and whether this would, in turn, result in an increased opportunity for children to practise, use and develop their Gaelic language skills at home, and thus support their proficiency in the language.

### *Study*

Ethical consent for this study was provided by the School of Education ethics committee at the University of Strathclyde and permission granted by the headteacher of the school for this study to be conducted. The study itself was shaped by the circumstances at the time of the research, namely the ongoing Covid-19 pandemic and the accompanying disruption to learning for all school pupils in Scotland, which also impacted on the provision of GME. In March 2020 all Scottish schools closed their door to face-to-face teaching and learning for most children (with exceptions made for children of caregivers who were both working in government assigned essential roles, or where welfare concerns meant that children were looked after in a school setting). The schools remained closed until August 2020, when they re-opened, only to be closed again after the winter-break in January 2021. This second closure was shorter, with most pupils returning to face-to-face classes in the middle of March, although the younger age groups (P1 to P4) only returned in their classrooms in the middle of April. This second school closure period was, in some respects, different from the first one, with teachers and children being more familiar with the opportunities and limitations of tools and resources that could be used to support the learning process remotely.

The school closures and the move to emergency remote teaching (Hodges et al., 2020) were accompanied by further measures to reduce the impact of the pandemic on Scottish society, including limited opportunities for social contacts and to participate in (organised) leisure

activities. There have been concerns about how these school closures might have impacted on learners and their educational progress and development (UNESCO, 2021), with the Scottish Government recognising that children "*have not benefitted from learning in Gaelic while learning at home, as would be the case when educated in school*", as a result of caregivers not being able to speak Gaelic, and to support their children's learning in the language (Scottish Government, 2020, n.p.). This was (and continues to be) an unprecedented period in Scottish education and a period where teaching and learning strategies had to be reimagined: away from the traditional model of children attending school to participate in live learning activities, towards a more asynchronous model, with activities and tasks for completion but without the (direct) supervision of the class teacher. What is, perhaps, overlooked in the discourse around the pandemic and its impact on educational achievement and progress, is that this was also a period of innovation and an opportunity for educators to assess their teaching and learning strategies and whether any of the lessons learned from the move to online and blended teaching approaches could also support classroom practices, and, in the case of GME, be used to support language acquisition and use beyond the classroom.

This study was framed within the practitioner enquiry paradigm, which, according to Baumfield et al. (2012,p.4), "*is a step in the process that begins with reflections and leads to sustained research*", situated within the professional context of the researcher themselves and with a focus on practice (Cochran-Smith & Donnell, 2006). The focus of the study was to evaluate exactly such an innovative approach developed during the second school closure period and was designed based on the observations and evaluations of the teaching and learning activities provided during the first period of school closures and restrictions. The research adopted a multi-modal approach which included the evaluation of baseline data, gathered as part of the normal classroom teaching and learning processes, on the children's Gaelic skills and proficiency and their engagement with homework tasks, this information was supplemented with parental questionnaires and learning journey conversations with the children. This study spanned a period of six months, starting in September 2020 and finishing in February 2021 and was situated in an English-medium school where GME is provided in two multi-composite classes: one class covering the total immersion phase (P1 – P3) and one class covering the immersion phase (P4 – P7). The study was focussed on the eight P2 children in the total immersion phase (P1 at the time of the first school closures) as this was the group that was thought to have been particularly affected, in terms of Gaelic language development, by the lack of direct teacher input and the opportunity to be immersed in the language in the classroom.

## Research Instruments

### *Parental Questionnaires*

The parental questionnaire consisted of 18 questions, 13 of which required participants to select from a range of options with a further five open-ended questions designed to invite participants to elaborate on their answers given. All questions were optional, and caregivers were free to not provide a response to any of these if they so wished. These self-administered questionnaires meant that caregivers could complete the survey at a time that was convenient to them (Bryman, 2012) and that the responses remained anonymous (McNeill, 2005). This is particularly pertinent in this context as the researcher, as one of the classroom teachers, was known to the caregivers, and this allowed the respondents to be less self-protecting (Dörnyei & Taguchi, 2009). The questionnaire was designed to be completed in a short time (about 10 to 15 minutes), identified by Dörnyei and Taguchi (2009), together with the extent to which participants feel that they are invested in the topic, as contributing factors to ensuring a high participation rate.

The questions included in the survey were categorised according to four themes: general questions around the use of Gaelic in the home; engagement with homework prior to the school

closures, access to online resources (including the availability of internet-enabled devices and access), and engagement with online learning during the school closures. These questions aimed to gain an overview of the context in which the children were situated in terms of both their language use at home, and the engagement with schoolwork and how this might have been affected by Covid-19. The parental questionnaire was distributed via the normal school information channels to all caregivers with children in GME (n = 19) with a response rate of 68% (13 parents), evenly split between caregivers who had children in the GME primary 1 to primary 3 class, and those who had children in the primary 4 to primary 7 class, with a small number of caregivers having children in both the classes.

## *Pupils' Assessments - In-class Tasks and Observations – and Learning Conversations*

Data was also collected from the children themselves, through in-class observations of talking and listening activities during routine classroom teaching and learning. These observations were further supplement by listening and talking assessments which were conducted at the start of the term in August 2020, and then repeated at the end of the term in the beginning of October 2020. This assessment had previously been used, both in this school and in other schools, to evaluate the children's linguistic progress and were designed to align with the curricular guidelines (Curriculum for Excellence) in Scotland in terms of literacy at the first level (see Learning & Teaching Scotland, 2008). This listening and speaking assessment consisted of the researcher, who was known to all the children in the class, reading out a question in a one-to-one session, with the pupils being asked to respond verbally. The researcher then noted whether the children understood what was being asked, and if so, whether the child responded in Gaelic or English. If pupils responded to the prompt in English or with an incorrect answer, the correct answer was provided and modelled by the teacher, in line with the advice given to teachers on addressing language related errors (Her Majesty's Inspectorate of Education [Scotland], 2011). This data provided the baseline information on the pupils' linguistic skills and progress in the period immediately after the school closures.

Two further listening and speaking assessments were carried out with all the pupils in term 2, leading up to the winter break: one at the start of term after the autumn break and one at the end, just before the winter break This was the period in which planned blended learning activities were introduced, defined by Garrison and Kanuka (2004, p. 96) as the "*thoughtful integration of classroom face-to-face learning experiences with online learning experience*"'. This consisted of the children being given access to online learning tasks to compliment the total immersion language experience in class. Children (and their caregivers) were provided with a grid which listed the different videos and activities, either created by the teachers or by external Gaelic educational organisations, which were linked to the classroom language focus at the time and were asked to indicate which of these they had engaged with during the week and asked to share their learning in class and at home at the end of each week. Children were also invited to participate in learning conversations with the researcher. During these learning conversations they were asked about their engagement with home learning during the school closure period, their use of Gaelic at home and their engagement with the blended learning activities in term 2.

## Findings and Discussion

Although this study only involved a small group of children and their caregivers, the findings from the parental questionnaire indicate that the linguistic competences of the caregivers in this research broadly mirror those across Scotland (McLeod, 2010; National Records of Scotland, 2015a) with the majority of caregivers not being proficient in the language, although 47% of the respondents indicated that they had some knowledge of the language. This 'capacity' for caregivers to use the language (Lo Bianco & Peyton, 2013) did not necessarily relate to *de facto* Gaelic language use in the home: only half the caregivers that reported to be able to speak Gaelic

used the language at home. Where Gaelic was used in the home, this was often limited, as acknowledged by the caregivers, who all indicated that the language was 'not used enough' or not at all.

The questionnaire also elicited information about the wider linguistic proficiencies in the social networks of the children, for example extended family members or friends. Around 32% of the children in this GME location had an adult outside their caregiver with whom they could speak Gaelic. The restrictions on social contacts meant that opportunities for (spontaneous) interactions with other family members or acquaintances in Gaelic was limited and this meant that during the school closures the main opportunities to communicate in the language were those provided by the teacher through the online platform, these included online class teacher-led conversation circles which were provided four days a week to all pupils (from P1 to P7). Access and use of the provisions made on the online platform was not universal however, with some caregivers reporting that there were difficulties accessing these sessions. Reasons for this might include limited access to internet-enabled devices or that their children did not feel comfortable using the online platform as a means of communication. Some caregivers had also actively sought out other opportunities for their children to continue to use their (spoken) Gaelic skills through online playdates or conversation circles organised by Gaelic organisations.

Caregivers were also asked to provide information about their children's engagement with homework. Starting with engagement before the Covid-19 closures, most caregivers (84%) reported that their children engaged with the homework. Caregivers indicated that they not always feel confident enough to support their children in completing the homework tasks, the main reason being their own (perceived) lack of proficiency in Gaelic, mirroring the findings by Green et al. (2007) and Kavanagh and Hickey (2013). Invalidation was sometimes expressed as stress, with one parent commenting that they found "*Gaelic homework very stressful, which is not helpful for my child*".

Although participants in this study were aware of the additional sources of help (for example the online homework help service called Gaelic4Parents), only 31.6% had used these. Most caregivers (68.4%) indicated that they used further digital resources to support their children's (Gaelic) learning at home, although this was dependent on the availability of internet enabled devices in the home and access to broadband.

During online learning because of the school closures 74.0% of the caregivers reported that their children engaged with the daily activities, although difficulties were also identified, including those already mentioned associated with access to internet enabled devices that could be used to access online content. As with the homework before the Covid-19 closures, some of the caregivers reported that they found it challenging to support their children in literacy, for example phonics and reading in Gaelic. Some caregivers, as a result, chose to support their children's learning by teaching them the English phonics (even though these are not part of the GME lower primary curriculum), citing that this was "*easier*", with Gaelic reading books considered difficult especially "*compared to early learning English books*". Although a free online homework help was available (Gaelic4Parents - provided by Gaelic educational resource organisation Stòrlann), 68.4% of the caregivers reported that they had not used this service, with some indicating that they had not tried to use it even though this same group of caregivers indicated that they struggled to support their children with the Gaelic homework. This would suggest that there is a barrier to asking for support, either from the teacher or from an outside organisation.

The ability of caregivers to support their children's learning was particularly highlighted during the Covid-19 school closures. During this period schools were providing work using online platforms, with an expectation that children would be supported in their learning at home. This is also where the complexity of the situation in which GME operates was highlighted, especially for

the youngest pupils in primary school who might only have been exposed to Gaelic for the 26 school weeks before the closures. This group of primary pupils would still be in the total immersion phase of their learning, but with limited expectations around full proficiency in both comprehension and production. Furthermore, with a focus on Gaelic language acquisition, these pupils would not have been fully able to read (by themselves) instructions posted in Gaelic (or in English as English literacy is not introduced until P4 although typically acquired before this stage), resulting in the teacher having to provide (written) instructions in English for the caregivers, further weakening the link between the use of Gaelic and the children's overall learning. Findings from this research showed that caregivers often opted to offer English-medium resources to their children, especially during the periods of school closures as these were deemed to be '*easier*' and more readily accessible than Gaelic, which also affected the ideologies of the child towards the language. This was coupled with an acknowledgement that Gaelic was not used in the home and a realisation, on the part of the caregivers, that this would affect their children's language acquisition.

The results of the children's language skills assessment were initially analysed to provide a measure of individual pupil performance before being used to calculate the mean average change, using the two-sample t-test to measure significance. The children's average attainment was 42.9% immediately after the school closures and the summer holiday period. The return to the immersion setting between August and October resulted in an overall 16% increase in these results although this improvement was not universal; with the overall scores of two pupils remaining unchanged (although both pupils had opportunities to use Gaelic at home) and three pupils' result showing a slight regression in their skills. The slight regression is not statistically significant and can be explained by the timing of this second phase of assessment: immediately after the two-week holiday period. The implementation of a trial of blended homework learning started in October 2020, a period where restrictions meant that paper copies of homework could not be sent home and returned for marking. At the end of term two (just before the winter closures which were the start of a second period of Covid-19 related school closures), the assessment was repeated. This time the results in proficiency showed an overall increase from the first assessment in August of 24.1%. The overall increase in proficiency, as measured through these one-to-one assessment sessions with the researcher, over term 2, the duration of the planned blended homework learning period, was 8%.

The group of pupils involved in this study had all engaged with learning at home to a different extent, although the learning conversations indicated that most of the pupils who engaged with the tasks provided had enjoyed the online homework. Pupils particularly enjoyed the learning videos produced by the teachers themselves, indicating that they had watched these repeatedly, in some cases with their caregivers, with some pupils feeling confident and encouraged to produce their own learning videos or pictures for sharing with the teachers and their peers. The findings showed that those pupils (50%) who engaged fully and completed all the online homework tasks made 14.3% more progress than they did in term 1 when there was no homework provided and the Gaelic input was limited to the classroom immersion setting (see Table 1). Furthermore, the pupils indicated that their parents actively engaged in supporting their children with the online learning tasks, despite the 75% not speaking the language at all.

These results stand in sharp contrast to pupils who engaged only in 50% or less of the online homework tasks, who, on average, only progressed by 8.8%. The pupils reported, through the engagement of caregivers with learning in this group, as reported by the children, was more limited despite their language proficiency being higher, with 75% of the caregivers able to speak Gaelic. A further important difference was that only 25% of the children scored full marks in the assessment at the end of Term 2, standing in sharp contrast to the children who fully engaged with the homework tasks and who all scored full marks in the final assessment.

**Table 1: *Mean Improvement in Early Years Language Assessment Test***

|  | Improvement during Term 1 | Improvement during Term 2 | Overall improvement between start of Term 1 and end of Term 2 |
|---|---|---|---|
| **Full engagement with homework (100% tasks completed)** | 17.8 % | 32.1 % | 14.3 % |
| **Limited or no engagement with homework (50% or less)** | 14.3 % | 23.1 % | 8.8 % |

Children in this study who engaged with the homework tasks reported that they enjoyed learning together with their caregivers and that the online materials could be readily accessed repeatedly. The provision of online materials did not need to focus on language skills but could also cover other areas of the curriculum, for example mathematics, delivered through Gaelic, providing an immersive linguistic soundscape in Gaelic at home. Although passive exposure, for example through videos or other materials, does not necessarily lead to better language learning outcomes by itself (Oh et al., 2020), it does create an environment where Gaelic is included and part of the environment: it takes Gaelic out of the classroom and into the home in such a way that it does not require linguistic proficiency on the part of the caregiver and reduces some of the anxieties associated with homework. Parental proficiency was not required to support the children in engaging with the homework tasks, resulting in fewer stress-related episodes and children experiencing the homework as more pleasant, in line with the findings by Patall et al. (2008).

Not only was there a greater level of completion of the home-learning tasks when this involved clear, direct instructions or input from the teacher through pre-recorded videos, but this increased involvement with Gaelic at home also resulted in higher levels of language attainment in those children who routinely engaged with these tasks compared to children who did not, or only engaged to a limited extent. Higher levels of Gaelic language acquisition will mean that children are able to better access other areas of the curriculum (which are also delivered through the medium of Gaelic) and will feel more confident and competent in their use of the language. Furthermore, these online materials created opportunities for Gaelic to permeate into the home, allowing for the gap to be bridged between the school and the home, and act to support linguistic confidence in caregivers, especially those who indicated that they had some proficiency in the language.

## Conclusions

GME has been recognised as the main mechanism for Gaelic language acquisition in children (Bòrd na Gàidhlig, 2012). However, most children enrolled in this minority language immersion education model do not have caregivers who are able to speak the language, nor the opportunity to use the language in a range of social domains outside of the educational domain. This means that the classroom teacher is the main source and model for Gaelic language input and support, not only ensuring that the children are immersed in the Gaelic language, but also responsible for correcting mistakes, especially around grammar and pronunciation (Macleod et al., 2014). This relatively limited input has implications for the language learning outcomes (Hickey, 2007; Ó Duibhir, 2018) but also for the ideologies towards the language (Makihara, 2013), which, in turn, are an indicator for later language use (Dunmore, 2017) and thus the overall sustainability of Gaelic.

This small-scale practitioner-enquiry study, set in a typical GME setting where the children are surrounded by English outside of the classroom, both within and outside of the educational domain, has shown that carefully planned and designed blended learning activities which complement the language learning in the classroom can support language acquisition and increase the proficiency of children by creating opportunities to see, hear and engage with, the language in the home environment. This study showed that the use of online blended materials resulted in greater level of completion of the home-learning tasks when this involved clear, direct instructions or input from the teacher through pre-recorded videos, but this increased involvement with Gaelic at home also resulted in higher levels of language attainment in those children who routinely engaged with these tasks compared to children who did not, or only engaged to a limited extent. Higher levels of Gaelic language acquisition will mean that children are able to better access other areas of the curriculum (which are also delivered through the medium of Gaelic) and will feel more confident and competent in their use of the language.

Although this study was set in the context of GME, which involves a relatively small number of children, the findings have implications for how the links between parental engagement and the classroom can be strengthened in other situations where the language of the class is not the language of the home, and in the wider context of supporting learning. The school closures because of Covid-19 have shown that new technologies can be used, not to replace face-to-face learning, but to enhance the overall learning experience and support a holistic approach towards learning, acknowledging that learning takes place across many domains outside of the education system and recognising the role of caregivers in supporting this learning.

## References

Baker, C. (2003). Education as a site of language contact. *Annual Review of Applied Linguistics*, 23, 95-112. https://doi.org/10.1017/s0267190503000217

Baumfield, V., Hall, E., & Wall, K. (2012). *Action research in education: Learning through practitioner enquiry*. Sage.

Birnie, I. (2018). *'Gàidhlig ga bruidhinn an seo?' – Linguistic practices and Gaelic language management initiatives in Stornoway, the Western Isles of Scotland* [Unpublished PhD thesis]. University of Aberdeen.

Birnie, I. (2021a). Gaelic Medium Education in Scotland - Challenges for the 21st century. In T. J. Ó Ceallaigh & M. Ó Laoire (Eds.), *An Tumoideachas: Deiseanna agus Dea-chleachtais? An Dara Comhdháil Taighde Uile-oileánda ar anTumoideachas: Imeachtaí Comhdhála (Immersion Education: Opportunities and Best Practices, conference proceedings based on papers presented at the Second All-Ireland Immersion Research Conference)* (pp. 271 - 279). An Chomhairle um OideachasGaeltachta agus Gaelscolaíochta,.

Birnie, I. (2021b). Language management initiatives and language use in public spaces. In W. McLeod, Gunderloch, A., Dunbar, R. (Ed.), *Cànan & Cultar / Language & Culture - Rannsachadh na Gàidhlig 10* (pp. 247 - 258). Aberdeen University Press.

Bòrd na Gàidhlig. (2012). *Plana Cànain Nàiseanta Gàidhlig 2012 - 2017 Fàs & Feabhas*. B. n. Gàidhlig. https://gaeliclanguageplansscotland.org.uk/files/development/Plana%20Naiseanta%202012-17_GD.pdf

Bryman, A. (2012). *Social Research Methods* (4 ed.). Oxford University Press.

Cochran-Smith, M., & Donnell, K. (2006). Practitioner inquiry: Blurring the boundaries of research and practice.

Conboy, B. T., & Thal, D. J. (2006). Ties between the lexicon and grammar: Cross-sectional and longitudinal studies of bilingual toddlers. *Child Development*, *77*(3), 712-735. https://doi.org/10.1111/j.1467-8624.2006.00899.x

Dörnyei, Z., & Taguchi, T. (2009). *Questionnaires in second language research: Construction, administration, and processing*. Routledge.

Doughty, C. J., & Long, M. H. (2005). The scope of inquiry and goals of SLA. *The Handbook of Second Language Acquisition*. (pp. 4-16). Blackwell Publishing. https://eclass.uoa.gr/modules/document/file.php/GS345/Doughty%20%26%20Long%20(eds)%20(2005).%20The%20Handbook%20of%20Second%20Language%20Acquisition.pdf

Dunmore, S. (2015). *Bilingual Life after School? Language use, ideologies and attitudes among Gaelic-medium educated adults.* University of Edinburgh].

Dunmore, S. S. (2017). Immersion education outcomes and the Gaelic community: identities and language ideologies among Gaelic medium-educated adults in Scotland. *Journal of Multilingual and Multicultural Development*, *38*(8), 726-741. https://doi.org/10.1080/01434632.2016.1249875

Education Scotland. (2015). *Advice on Gaelic Medium Education*. https://education.gov.scot/media/haoejcof/advice-on-gaelic-education-march-2022.pdf

Ellis, N. C. (2008). The dynamics of second language emergence: Cycles of language use, language change, and language acquisition. *The Modern Language Journal*, *92*(2), 232-249. https://doi.org/10.1111/j.1540-4781.2008.00716

Ellis, R., & Shintani, N. (2013). *Exploring language pedagogy through second language acquisition research*. Routledge.

Epstein, J. L., & Sheldon, S. B. (2002). Present and accounted for: Improving student attendance through family and community involvement. *The Journal of Educational Research*, *95*(5), 308-318. https://doi.org/10.1080/00220670209596604

Epstein, J. L., & Van Voorhis, F. L. (2012). The changing debate: From assigning homework to designing homework. In *Contemporary debates in childhood education and development* (pp. 277-288). Routledge.

Fishman, J. (1991). *Reversing Language Shift - Theoretical and Emperical Foundations of Assistance to Threatened Languages* (1st ed.). Multilingual Matters Ltd.

Fitzmaurice, H., Flynn, M., & Hanafin, J. (2020). Parental involvement in homework: A qualitative Bourdieusian study of class, privilege, and social reproduction. *International Studies in Sociology of Education*, *30*(4), 440-461. https://doi.org/10.1080/09620214.2020.1789490

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, *7*(2), 95-105. https://doi.org/10.1016/j.iheduc.2004.02.001

Genesee, F., & Jared, D. (2008). Literacy development in early French immersion programs. *Canadian Psychology/Psychologie Canadienne, 49*(2), 140–147. https://doi.org/10.1037/0708-5591.49.2.140

Green, C. L., Walker, J. M., Hoover-Dempsey, K. V., & Sandler, H. M. (2007). Parents' motivations for involvement in children's education: An empirical test of a theoretical model of parental involvement. *Journal of Educational Psychology, 99*(3), 532. https://doi.org/10.1037/0022-0663.99.3.532

Head, E. (2020). Digital technologies and parental involvement in education: the experiences of mothers of primary school-aged children. *British Journal of Sociology of Education, 41*(5), 593-607. https://doi.org/10.1080/01425692.2020.1776594

Her Majesty's Inspectorate of Education (Scotland). (2011). *Gaelic Education: Building on the successes, addressing the barriers.* Her Majesty's Inspectorate of Education (Scotland). http://www.gaidhlig.scot/wp-content/uploads/2018/06/BuildingontheSuccesses1017.pdf

Hermanto, N., Moreno, S., & Bialystok, E. (2012). Linguistic and metalinguistic outcomes of intense immersion education: how bilingual? *International Journal of Bilingual Education and Bilingualism, 15*(2), 131-145. https://doi.org/10.1080/13670050.2011.652591

Hickey, T. M. (2007). Children's Language Networks in Minority Language Immersion: What Goes In May Not Come Out. *Language and Education, 21*(1), 46-65. https://doi.org/10.2167/le617.0

Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). *The difference between emergency remote teaching and online learning.* https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and- online-learning

Hornby, G., & Lafaele, R. (2011). Barriers to parental involvement in education: an explanatory model. *Educational Review, 63*(1), 37-52. https://doi.org/10.1080/00131911.2010.488049

Howard, E. R., Sugarman, J., & Christian, D. (2003). Trends in Two-Way Immersion Education. A Review of the Research. Available from: https://eric.ed.gov/?id=ED483005

Hutchison, K. (2012). A labour of love: Mothers, emotional capital and homework. *Gender and Education, 24*(2), 195-212. https://doi.org/10.1080/09540253.2011.602329

Johnstone, R. (2002). *Immersion in a second or additional language at school: a review of international research* SCILT. https://www.scilt.org.uk/Portals/24/Library/publications/SCILT_2001_Johnstone_Immersion.pdf

Katz, I., Eilot, K., & Nevo, N. (2014). "I'll do it later": Type of motivation, self-efficacy and homework procrastination. *Motivation and Emotion, 38*(1), 111-119. https://doi.org/10.1007/s11031-013-9366-1

Kavanagh, L., & Hickey, T. M. (2013). 'You're looking at this different language and it freezes you out straight away': Identifying challenges to parental involvement among immersion parents. *Language and Education, 27*(5), 432-450. https://doi.org/10.1080/09500782.2012.714388

Landgraf, J. S. (2013). *Cànain agus Cultar ann am Foghlam tro Mheadhan na Gàidhlig: Neartan, Duilgheadasan agus am Buaidh air Comasan is Seasamhan Cànain na h-Òlgridh* University of Aberdeen.

Learning & Teaching Scotland. (2008). *Curriculum for excellence: Experiences and outcomes*. https://education.gov.scot/Documents/All-experiencesoutcomes18.pdf

Lo Bianco, J., & Peyton, J. K. (2013). Introduction: Vitality of Heritage Languages in the United States: The Role of Capacity, Opportunity, and Desire. *Heritage Language Journal, 10*(3), i - vii. https://doi.org/10.46538/hlj.10.3.1

Mac an Tàilleir, I. (2010). A' Ghàidhlig anns a' Chunntas-shluaigh. In G. Munro & I. Mac an Tàilleir (Eds.), *Coimhearsnachd na Gàidhlig an-diugh / Gaelic Communities today* (pp. 19 - 34). Dunedin Academic Press.

Macleod, M., Macleod, M. C., Coyle, D., & Thirkell, A. M. (2014). Young Speakers' Use of Gaelic in the Primary Classroom: A multi-perspectival pilot study. http://www.soillse.ac.uk/wp-content/uploads/YoungSpeakers_Final.pdf

MacLeòid, D. J. (2007). Sùil air ais. In M. NicNeacail & M. MacÌomhair (Eds.), *Foghlam tro Mheadhan na Gàidhlig* (pp. 1-16).

Makihara, M. (2013). Language, competence, use, ideology, and community on Rapa Nui. *Language & Communication, 33*(4), 439-449. https://doi.org/10.1016/j.langcom.2013.03.005

McLeod, W. (2010). Poileasaidh Leasachaidh na Gàidhlig: Paradaim Ùr. In G. Munro & I. Mac an Tàilleir (Eds.), *Coimhearsnachd na Gàidhlig an-diugh / Gaelic Communities Today* (1 ed., pp. 1-18). Dunedin Academic Press.

McLeod, W. (2020). *Gaelic in Scotland: Policies, movements, ideologies*. Edinburgh University Press.

McNeill, P. (2005). *Research methods* (3rd ed.). Routledge.

Morgan, P. (2021). *Dàta Foghlaim Ghàidhlig / Gaelic Education Data 2020-21*. Bòrd na Gàidhlig. https://www.gaidhlig.scot/wp-content/uploads/2021/10/Data-Foghlaim-POBLACH-2020-21.pdf

Moseley, C. (2010). Atlas of the World's Languages in Danger. UNESCO. http://www.unesco.org/languages-atlas/#

Nance, C. (2020). Bilingual language exposure and the peer group: Acquiring phonetics and phonology in Gaelic Medium Education. *International Journal of Bilingualism, 24*(2), 360-375. https://doi.org/10.1177/1367006919826872

National Records of Scotland. (2015a). *Scotland's Census 2011: Gaelic report (part 1)*. https://www.scotlandscensus.gov.uk/media/cqoji4qx/report_part_1.pdf

National Records of Scotland. (2015b). *Scotland's Census 2011: Gaelic report (part 2)*. https://www.scotlandscensus.gov.uk/media/oayjxjrq/report_part_2.pdf

Ó Duibhir, P. d. (2018). *Immersion education : lessons from a minority language context*. Multilingual Matters.

O'Hanlon, F. (2014). Choice of Scottish Gaelic-medium and Welsh-medium education at the primary and secondary school stages: parent and pupil perspectives. *International journal of Bilingual Education and Bilingualism, 18*(2), 242-259. https://doi.org/10.1080/13670050.2014.923374

O'Hanlon, F. (2010). Gaelic-Medium Primary Education in Scotland: Towards a New Taxonomy? In G. Munro & I. Mac an Tàilleir (Eds.), *Coimhearsnachdan na Gàidhlig an-diugh / Gaelic Communities Today* (pp. 99 - 116). Dunedin Academic Press.

O'Hanlon, F., Mcleod, F., & Paterson, L. (2010). *Gaelic-medium education in Scotland: choice and attainment at the primary and secondary school stages. Final report of the project 'The Output of Gaelic Education'.* Bòrd na Gàidhlig.

Oh, Y., Todd, S., Beckner, C., Hay, J., King, J., & Needle, J. (2020). Non-Māori-speaking New Zealanders have a Māori proto-lexicon. *Scientific Reports, 10*(22318). https://doi.org/10.1038/s41598-020-78810-4

Oliver, J. (2006). Where is Gaelic? Revitalisation, language, culture and identity. In W. McLeod (Ed.), *Revitalising Gaelic in Scotland - Policy, planning and public discourse* (pp. 155-168).

Patall, E. A., Cooper, H., & Robinson, J. C. (2008). Parent Involvement in Homework: A Research Synthesis. *Review of Educational Research, 78*(4), 1039-1101. https://doi.org/10.3102/0034654308325185

Pinter, A. (2011). *Children learning second languages*. Springer.

Reay, D. (2005). Doing the dirty work of social class? Mothers' work in support of their children's schooling. *The Sociological Review, 53*(2_suppl), 104-115. https://doi.org/10.1111/j.1467-954x.2005.00575.x

Rudman, N. P. C. (2014). A review of homework literature as a precursor to practitioner-led doctoral research in a primary school. *Research in Education, 91*(1), 12-29. https://doi.org/10.7227/rie.91.1.2

Scottish Government. (2020). *Coronavirus (COVID-19): Gaelic medium education.* https://www.gov.scot/publications/coronavirus-covid-19-gaelic-medium-education/

Smith-Christmas, C. (2016). 'Is it really for talking?': the implications of associating a minority language with the school. *Language, Culture and Curriculum, 30*(1), 32-47. https://doi.org/10.1080/07908318.2016.1230619

Stephen, C., McPake, J., McLeod, W., & Pollock, I. (2011). *Investigating children's learning experiences in Gaelic-medium pre-school.* https://strathprints.strath.ac.uk/38724/1/GMwebreportandreflections_000.pdf

Thomas, F. (1998). Gaelic in the census of population in Scotland 1881 - 1991. Colloquium on Minority Language - language population censuses and social surveys, Hatfield.

Ule, M., Živoder, A., & du Bois-Reymond, M. (2015). 'Simply the best for my children': patterns of parental involvement in education. *International Journal of Qualitative Studies in Education, 28*(3), 329-348. https://doi.org/10.1080/09518398.2014.987852

UNESCO. (2021). *Adverse consequences of school closures.*
https://en.unesco.org/covid19/educationresponse/consequences