Linguistically Diverse Children in Iceland

Family Language Policy and Icelandic Phonological Awareness

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*Family Language Policy and Icelandic Phonological Awareness*

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Democracy, Equality and Multiculturalism

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Preface

This is a report of my final project written as a book chapter under review in an upcoming book, “Icelandic Studies on Diversity in Education” edited by Samúel Lefever and Hanna Ragnarsdóttir. The main purpose for this study is to contribute to the understanding of the growing diversity in Icelandic schools. I have learned and gained so much from my studies. This has also enhanced my motivation to continue working in the field of research. For that, I am exceptionally grateful for everyone who has influenced and helped me through this process in one way or another.

First, I would like to express my deep appreciation and gratitude to my supervisors who have demonstrated professionalism as well as compassion throughout my endeavour. It is because of their expertise and dedication that I managed to complete my research. I also would like to thank my professors, classmates and other colleagues at the University of Iceland for their commentaries and assistance. Furthermore, this research would be incomplete without my participants and so I am thankful for their time and patience. Lastly, I am deeply indebted to my family for their unconditional love and boundless support through the challenges. I dedicate this thesis to my dearest partner in life, Xabier, our wonderful plurilingual child, Lawin Þór, and my amazing parents, Marilou and Jón Hilmar.

This thesis was written solely by me, the undersigned. I have read and understood the university code of conduct and have followed them to the best of my knowledge. I have correctly cited all other works or previous work of my own, including, but not limited to, written works, figures, data or tables. I thank all who have worked with me and take full responsibility for any mistakes contained in this work.

Reykjavík, September 29, 2017

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Abstract

Icelandic schools are faced with increasing diversity on account of students’ various forms of linguistic upbringing. The National Curriculum Guide emphasises the importance of schools and parents in fostering active bilingualism among students with mother tongues other than Icelandic (Ministry of Education, Science and Culture, 2014a). Research about these students tends to focus mostly on their Icelandic literacy, and findings often imply that they generally struggle to achieve literacy benchmarks (Ólafsdóttir & Sigurðsson, 2017; Ólafsdóttir, Birgisdóttir, Ragnarsdóttir, & Skúlason, 2016). Studies have found phonological awareness to be an important factor for subsequent literacy development both for monolingual and bilingual children (Goswami & Bryant, 1990; Hammer, et al., 2014). This is also reported to be highly correlated with Icelandic students’ achievement throughout compulsory schooling (Einarsdóttir, Björnsdóttir, & Símonardóttir, 2016). Furthermore, research reveals that bilingual children tend to develop phonological awareness in both (all) their languages quite early, as this skill transfers between their languages, leading them to build a stronger grasp thereof (Hammer, et al., 2014; Parra, Hoff, & Core, 2011). The purpose of this study is threefold. The first aim is to describe the common language ideologies, methods, and oversight in the family settings of linguistically diverse children, referred to as the family language policy (FLP) (King & Fogle, 2013). The second aim is to evaluate these children’s Icelandic phonological awareness (IPA) in preschools. Lastly, this study seeks to analyse the associations between FLP and IPA among linguistically diverse students in Iceland. Quantitative data were gathered from children in their last preschool year (N = 45) via their results from the HLJÓM-2 standardised screening test of IPA and from their parents’ responses on the FLP questionnaire. The findings suggested that children’s families have various embodiments of FLP as reflected by their different sociolinguistic circumstances and habits. However, contrary to foreign studies, the findings revealed that the mean score of the participants’ HLJÓM-2 results was less than the national average and that a higher percentage of them scored below average. Lastly, some significant associations were found between some aspects of children’s FLP and IPA. Results are discussed and some implications are suggested.
Ágrip
Tungumálafjölbreytni barna á Íslandi:
Tungumálastefna fjölskyldunnar og íslensk hljóðkerfisvitund

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1 Introduction

In Iceland, the number and percentage of students with diverse linguistic backgrounds is increasing. Ultimately, Icelandic schools aim for their students to develop age appropriate literacy criteria set by the National Curriculum Guides (Ministry of Education, Science and Culture, 2011; 2014a). However, research has shown that, on average, students with Icelandic as a second language tend to have literacy difficulties and generally struggle to attain those criteria (Ólafsdóttir & Sigurðsson, 2017; Ólafsdóttir, Birgisdóttir, Ragnarsson, & Skúlason, 2016; Thordardottir & Juliusdottir, 2012; Halldórsson, Ólafsson, & Björnsson, 2012).

The National Curriculum Guide emphasises the importance of schools and parents in fostering active bilingualism among students with mother tongues other than Icelandic as it is “an advantage for anyone to be fluent in more than one language and, moreover, this is valuable for society” (Ministry of Education, Science and Culture, 2014a, p. 105). Although not mentioned in the Guide, active bilingualism refers to active use of first and second languages (L1 and L2) in which the individual is able to understand and speak the languages, as opposed to passive bilingualism where individuals may understand but not speak one of the languages (Slavkov, 2016; De Houwer, 2007).

Schools are urged to inform and cooperate with the parents about their responsibility to maintain their mother tongue at home. However, studies abroad showed that parents have distinctive types of family language ideologies, practices and management which influence the children’s bilingual development as either passive or active bilinguals (Lewis, Sandilos, Hammer, & Sawyer, 2015; Byers-Heinlein, 2013; De Houwer, 2009; 2007). The results postulated that parents tended to have varied knowledge, expertise and efficacy regarding their bi/plurilingual children’s language development, which then affected how the parents communicated and whether or not they taught their mother tongue to their children. This complexity of sociolinguistic factors is currently being developed within the relatively new concept of family language policy (FLP), that considers how the languages are chosen, planned and managed within families that are living in a linguistically diverse context (King, Fogle, & Logan-Terry, 2008; King & Fogle, 2013). Additionally, FLP takes into account the children’s views of language and preferences and proficiencies in both languages (Schwartz & Verschik, 2013; Schwartz, 2010).

Iceland has had a strong purist language policy in maintaining and sustaining the Icelandic language through the years (Hilmarsson-Dunn & Kristinsson, 2010). This is also why Icelandic dialects differ minimally in pronunciations in comparison to dialects and national languages of other countries, which means that the language has been quite homogenous.
As a result, the Icelandic phonological system has been preserved in a way that modern Icelanders can read historical texts, such as in the Sagas. Apart from that, research has revealed that phonological awareness is integral in further literacy skills (Goswami & Bryant, 1990; National Reading Panel, 2000). This is particularly relevant for the development of reading skills in Icelandic because its writing system, or orthography, basically reflects speech sounds. This means that phonological awareness assists with word decoding in Icelandic to a greater extent than in, e.g., English which has a very complex, opaque writing system (Ziegler, et al., 2010). Consequently, a significant relation has been found between phonological awareness among Icelandic students during the last year of pre-primary schooling on their educational attainment throughout their compulsory schooling in Iceland (Björnsdóttir, Einarsdóttir, & Simonardóttir, 2016). This highlights the importance of analysing the phonological awareness of students in the pre-primary level both as a tool to determine those in need of early intervention and as a strong predictor of further academic success, not the least among students with diverse linguistic backgrounds.

The diversity of languages among students in Iceland has not yet been fully mapped, although there is information about students who have a mother tongue other than Icelandic (Statistics Iceland, 2016a). Due to the complexity of family language beliefs, practices and management, it is not enough to derive students’ mother tongue solely on their parents’ origins. Similarly, bilingual children’s phonological awareness in the early years of schooling as a determining factor for further Icelandic literacy skills has yet to be examined. Therefore, there are three main purposes for this research. Firstly, to give a description of patterns of family language policy (FLP) among bi- or plurilingual children, referred to as linguistically diverse students in this research. Secondly, to analyse the Icelandic phonological awareness (IPA) among these children. Lastly, to study the relationship between linguistically diverse students’ family language policies in Iceland and the students’ IPA.
2 Overview of literature

This chapter begins with a description of Icelandic language policy and environment. In addition, it covers the academic literature behind linguistic diversity of students and the concept of FLP, that will then be linked to the phonological awareness that is considered to be the underlying factor for students’ literacy.

2.1 Language policy in Iceland

Iceland has a unique characteristic in terms of language and has been considered to be “a linguistically homogenous nation-state” (Spolsky, 2004, p. 61) having only one indigenous language minority, Icelandic sign language. Iceland has had purist language policies that kept the nation’s language ideology, planning and practices sustaining the Icelandic language with very minimal changes in the last thousand years (Hilmarsson-Dunn & Kristinsson, 2010). According to Hilmarsson-Dunn and Kristinsson (2010), Iceland “has a strong literary tradition and a conservative and protectionist language policy, which is supported by the majority of the population” (p. 207). Recently, there have been some changes in this discourse due to increasing globalisation. The use of English in the country has broadened, especially in media, information technology, international domains and even in education (Hilmarsson-Dunn & Kristinsson, 2010; Albury, 2014). Due to the additional English proficiency of native Icelanders and the growing use of English as a medium of communication among immigrants, English has been called “Iceland’s second domestic language” (Albury, 2014, p. 118). It is, therefore, not unusual to hear and use English in the Icelandic language environment. In addition, increasing immigration consequently brings emerging groups of foreign language minorities into Icelandic society (Hilmarsson-Dunn & Kristinsson, 2010). Currently, the biggest language groups, according to country of birth of Icelandic residents, are Polish, Danish and native English speakers (Statistics Iceland, 2016b).

However, the Icelandic Parliament, or Alþingi, has sought to continue promoting and maintaining the use of Icelandic as a counter-measure to the spreading influence of English. The Act on the Status of the Icelandic Language and Icelandic Sign Language No. 61/2011 named Icelandic the official language of Iceland, to be sustained accordingly in all public domains of society. There is also a strong Icelandic language policy called Íslenska til alls - málstefna wherein teachers in all school levels are required to be good Icelandic language models for students, in addition to increased usage of the Icelandic language in schools and in technology (Ministry of Education, Science and Culture, 2008). According to the Icelandic
Language Committee’s (2015) evaluation five years after the policy was issued, much of the policy, including in education, has been implemented.

Most children in Iceland attend pre-primary institutions from ages two to six years of age with a daily attendance of eight hours (Statistics Iceland, 2016a). This is the first level of education in the country (Ministry of Education, Science and Culture, 2011). Compulsory schooling in Iceland is 10 years where students begin in the year they turn six and end in the year they turn 16 (Ministry of Education, Science, and Culture, 2012). Both levels emphasize overall development of students in cooperation with parents on the grounds of equity and inclusion, with a focus on their linguistic growth and development in Icelandic. In addition, Iceland recently implemented the National Agreement on Literacy, administered by the Directorate of Education, a newly formed institution that aims to increase literacy and graduation rates among students in pre-primary, compulsory and upper secondary schools (Ministry of Education, Science and Culture, 2014b). Pre-primary institutions foster children’s early literacy skills, like phonological awareness, that assist them in the first grade, where they are initially taught how to read.

To accommodate to the changing demographics of students, policies and provisions for Icelandic lessons specifically targeted at immigrants have been developed, including extra support for Icelandic second language learners in Icelandic schools (Hilmarsson-Dunn & Kristinsson, 2010). However, the term linguistic diversity should not only be determined by the students’ immigrant background. It is used in a broader manner, as explained in the next sections.

### 2.1.1 Demographics of Iceland’s linguistic diversity

According to Statistics Iceland (2016a), there is an increase in the number of students with a language other than Icelandic spoken at home. Figure 1 shows that there has been steady growth in number and percentage of students who have a mother tongue other than Icelandic both in the country’s pre-primary and compulsory schools in the last five years. The students represented by this figure are those who have mother tongues other than Icelandic on account of having one or both foreign parents.
Looking into the students’ mother tongues, Statistics Iceland (2016a) enumerates 47 different languages and three additional items that correspond to more languages. These are various African languages, Philippine languages and other/undisclosed languages. The three largest groups in pre-primary and compulsory level shown in Table 1.

Table 1. Number of students in Icelandic pre-primary and compulsory schools having another mother tongue than Icelandic in the year 2015. (Statistics Iceland, 2016a).

<table>
<thead>
<tr>
<th>Language</th>
<th>Preschools</th>
<th>Compulsory schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2435</td>
<td>3543</td>
</tr>
<tr>
<td>Polish</td>
<td>935</td>
<td>1282</td>
</tr>
<tr>
<td>Philippine languages</td>
<td>139</td>
<td>336</td>
</tr>
<tr>
<td>English</td>
<td>198</td>
<td>240</td>
</tr>
</tbody>
</table>

However, these numbers only depict the students who have one or both foreign-born parents. This is because the residents’ origin is classified by his or her country of birth, as well as that of his or her parents and grandparents (Statistics Iceland, 2009). The classifications according to origin are as follows: people with no foreign background, born abroad with Icelandic background, immigrant, second generation immigrant, born in Iceland with one parent born abroad, born abroad with one parent born abroad. A group of students may fall into the group with no foreign background but have diverse linguistic experiences from living abroad or through other means. Hence, the figure above excludes
other students who may have been socialized within a more diverse linguistic environment than anticipated in the population classifications.

In compulsory schools, different terms are commonly used to refer to the linguistic diversity of students, such as newcomers, bilingual students, students with a mother tongue other than Icelandic, students with foreign background or students with Icelandic as a second language (Danielsdóttir, Jónsson, & Sigurðardóttir, 2010). In academic research, the phrase students with Icelandic as a second language has become widely used (Ólafsdóttir, 2015; Thordardottir & Juliusdottir, 2012). Similar to how second language students are identified in Statistics Iceland (see Figure 1), the terms used in schools particularly refer to the students’ origin, which is determined by their parents’ mother tongue(s).

It is quite important, therefore, to map the actual linguistic background of students in Icelandic schools. The Icelandic National Curriculum for compulsory schools explains more extensively the linguistic diversity of students when defining Icelandic as a second language. It covers a broader meaning than mentioned above, in that it mentions different kinds of linguistic upbringings not only based on students’ origin, but also based on their various experiences of acquiring other languages, even those which are not necessarily their parents’ mother tongue(s). Furthermore, it requires the schools to accommodate the different needs of students’ distinct linguistic backgrounds, such as having learned the Icelandic language after living abroad or even the relatedness of Icelandic to their other languages (Ministry of Education, Science and Culture, 2014a, pp. 106-107). Criteria for Icelandic language competence among second language learners are also set in the curriculum to help schools assess the students’ Icelandic literacy skills. The main purpose, though, is for them to develop similar literacy skills as other Icelandic students. In addition to that, there is an increased emphasis on Icelandic literacy skills for all the students (Ministry of Education, Science and Culture, 2014b).

According to Hilmarsson-Dunn and Kristinsson (2010), even though the policy has been established by the Ministry, an applicable framework for fostering active bilingualism among Icelandic second language learners has yet to be developed and implemented. Furthermore, they have criticised the Ministry that although it states the importance of immigrant children’s first language in learning Icelandic, no expenditures are spent in administrative support or oversight for first language or mother tongue education, which indicates that the responsibility mainly falls on the parents.

2.1.2 Role of parents in raising linguistically diverse children in Iceland

According to the National Curriculum Guide on Compulsory Schools, schools are encouraged to collaborate with parents in order to cultivate active bilingualism among linguistically
diverse students wherein they are encouraged to be fluent in both Icelandic and their home language (Ministry of Education, Science and Culture, 2014a). This insinuates the active use of both languages in the child’s environment, but the responsibility for teaching the immigrant languages falls largely on the parents. Along with carrying the weight of mother tongue teaching and maintenance for their children, parents are also urged to raise their children’s interest in succeeding in both languages. It states that:

The emphasis should be on extensive cooperation with home in practising Icelandic as a second language at all levels of compulsory school. This is an important cooperative task for both home and school as the family plays a significant role in creating a climate of respect for both languages, encouraging and nurturing them, and in maintaining the interest of pupils in active bilingualism. (2014a, p. 107)

This reiterates the duty of parents to expose their children to their mother tongue by constantly using the language at home, finding other resources, such as books and internet materials, organizing informal classes with peers, or learning in other countries. However, considering the critical role of parents in cultivating their children’s active bilingualism set by the National Curriculum Guide, it is important to recognize and distinguish parents’ differential capabilities in adhering to this seemingly assigned role. The next section provides a summary of research connecting students’ language skills based on how they decide, maintain, and manage their family language(s), also referred to as FLP.

### 2.2 Family language policy

Children without specific health issues have the best physical, as well as social, predispositions to learn a language from the environment wherein they are exposed. Learning a language is a dynamic and interactive process that studies have shown to be affected greatly by how language is materialised around and used with the children (Weisleder & Fernald, 2013; Hart & Risley, 1995; Gilkerson & Richards, 2009). For instance, the study by Hart and Risley (1995) revealed that the vocabulary of children in a monolingual setting is greatly influenced by the frequency and complexity of language input and interaction with their parents. They also found that language input and interactions with children vary among parents from different socioeconomic backgrounds in the United States. This is also consistent with the findings of Gilkerson and Richards (2009), a more recent study on 314 families wherein the children’s expressive skills were highly impacted by adult language interactions with them.
Rowe (2008) studied the reasons for parental socioeconomic backgrounds affecting language interactions directed at toddlers in a monolingual setting. She found that parents had different language beliefs that affected how they talked to their children. Parental beliefs about children’s language development which tended to be in alignment with sources from experts and other academic texts prompted a more dynamic and challenging manner of communication with their children. This then resulted in a better vocabulary among their children. Parents with a higher socioeconomic status, or with high income and education, had a higher tendency to hold these beliefs and perform accordingly. This means that the quality and quantity of child-directed speech accounted for children’s language development.

Therefore, children’s language development is affected by how the language is maintained and managed by their families. This finding is highly significant, especially to children who are exposed to a diverse linguistic environment due to increasing globalization. In a similar way as monolinguals, bilinguals also learn the language(s) to which they are exposed and that language input by their parents varies depending on parents’ language ideologies and how they use the languages at home (King, Fogle, & Logan-Terry, 2008; De Houwer, 2007). In a comprehensive study of 182 peer-reviewed articles on second language learners, Hammers and colleagues (2014) concluded that the key factor in bilingual children’s development of both languages is how the languages are maintained, managed, and exposed to the children, more so than other factors such as socioeconomic background, and other cross-linguistic factors.

FLP is an emerging concept in the study of bilingualism that comes from the concept of language policy that, according to Spolsky (2004), encompasses how languages are settled and managed after deciding what languages are to be used and maintained. Much like national language policies, the concept of FLP can be used to examine how the language is imparted, taught, and managed to the next generation in the context of families, especially those with diverse languages (Spolsky, 2012; King, Fogle, & Logan-Terry, 2008). It offers an interdisciplinary approach that takes into account the complexity of home language maintenance, such as the family’s language ideologies or their beliefs, experiences and attitudes towards language and language learning; the family’s language use and practice; and how the languages are managed within the family (King & Fogle, 2013; Schwartz, 2010). FLP studies posit that these complexities give insight into children’s language acquisition and literacy development.

Studies have indicated that there can be several challenges and discrepancies between parents’ and children’s language ideologies and how the languages are actually practised
and maintained at home by the members of the family (Slavkov, 2016; Schwartz & Verschik, 2013; De Houwer, 2007). Research in FLP is, therefore, highly relevant among linguistically diverse families as it gives a wider insight into the children’s bilingual development. According to Schwartz and Verschik, FLP is a “joint social venture” (2013, p. 19) wherein bilingualism is fostered by interactions that are determined by several factors such as parents’, as well as children’s, language attitudes, preferences and use. An increasing number of studies indicate that there are various FLPs among linguistically diverse students abroad, but there are patterns.

2.2.1 Different embodiments of FLP

Studies demonstrate the trends of language patterns that parents with diverse backgrounds use with their children. These patterns, or embodiments, of family languages include, but are not limited to, one-parent-one-language (OPOL), minority language at home (ML@H), mixed languages and majority language at home (Maj@H) while children go to minority language schools in the country. The term minority language is used roughly as an equivalent to immigrant or foreign minority language.

OPOL is a pattern that is used by parents who have different languages. This could be a parent who speaks the majority language while the other speaks a minority language but can also be parents speaking different minority languages. It has been well studied and traditionally claimed to be the most successful pattern of FLP, as revealed by a number of ethnographic case studies. Among the first studies was Leopold’s (1939-1949) extensive report and analysis on his daughters being raised in a German-English family in the United States of America. More studies followed and were consistent with the main findings of the OPOL pattern’s success in raising bilingual children (Dewaele, 2000; Hoffmann, 1985; Oller, 2010).

However, recent studies also revealed the success of raising bilinguals through other patterns. For instance, a large-scale family survey on Dutch bilinguals aged one to nine years old children with immigrant backgrounds in Belgium revealed that their language use was influenced by the language input patterns of their parents (De Houwer, 2007). Findings implied that there were more children raised as active bilinguals when parents spoke both minority and majority languages than those whose parents only spoke the minority language. Furthermore the chances for being raised as active bilinguals were greatest among those with both parents who spoke the minority language and at least one parent who also spoke the majority language. Additionally, children who spoke only one language often had both parents who spoke the majority language and only one spoke the minority language. These studies provided evidence that there are different patterns of language
input conditions by parents and insight into the impact of these patterns on their children’s language use.

In a study by Byers-Heinlein (2013), bilingual parents who used language mixing more frequently, which she found to be quite common among parents raising bilingual children, account for smaller sized vocabularies among their bilingual children in L2. Similarly, Spanish-English children’s English language skills were not affected by less or more usage of English by their Spanish-native mothers, although the children’s Spanish language skills were negatively affected by the increasing usage of English by their parents (Hammer, Davison, Lawrence, & Miccio, 2009). Similar findings from another study were found wherein parents’ use of Spanish as a home language did not affect their children’s English language skills (Mancilla-Martinez & Lesauz, 2011).

Furthermore, studies illustrate a correlation between the quantity and quality of bilingual language environments and children’s language abilities. For instance, Lewis and colleagues (2015) examined the home language and literacy environment of Spanish-English bilingual preschool children in the United States and found that certain factors correlated with their language abilities in both languages. For instance, home language and literacy exposure in Spanish by mothers correlated with the pre-schoolers’ Spanish oral comprehension and vocabulary. Similarly, the usage of English as their L2 in their home environment accounted for their English vocabulary. However, it came to light that, on average, the Spanish language use of students as well as their Spanish literacy exposure at home were less frequent and very limited, which meant that their L1, or mother tongue, abilities were more passive and less maintained, and they tended to use more English, the majority language, at home. This resulted in more developed abilities in English than Spanish. Their findings also showed that parents did not provide additional support in English at home.

These results are also supported in a study by Vagh, Pan, & Mancilla-Martinez (2009) wherein toddlers who had balanced exposure to English and Spanish had English language skills in between their English-dominant and Spanish-dominant cohorts. In addition, Bohman and colleagues (2010) revealed that language use of children goes along with language exposure. This in turn had a tremendous impact on both Spanish and English language skills of children. That is to say, the more the children were exposed to both languages, the more they used them. This stresses the high significance of both language input and output in the language environment of children.

Another complexity in FLP patterns among immigrant parents with their children is when the parents come from a multilingual community, such as in the study of Lanza and Svendsen (2007) on Filipino immigrant parents in Norway. It revealed a very heterogeneous
pattern of parental choice of languages and interactions with children, that were influenced by the parents’ multilingual social networks, cultural identities affecting their language attitudes and behaviours. This heterogeneity in language environments describes a language situation that is very distinctive among multilingual migrant groups.

In sum, the linguistic upbringing of bilingual children influences their linguistic skills. However, these skills generally vary in each of their languages as children are commonly exposed to and use the languages in different proportions (Byers-Heinlein, 2013; De Houwer, 2009). It is then highly relevant to look into research conducted on Iceland considering the various patterns of FLP revealed by studies mentioned above.

### 2.2.2 FLP in the Icelandic context

In Iceland, the National Curriculum Guide for compulsory schools (2014a) promotes FLPs that cultivate active bilingualism among those students with diverse linguistic backgrounds through collaboration between home and school. The compulsory schools, which educate students from 6-16 years of age, provide education on Icelandic as a second language. As mentioned before, parents have a critical role as they are encouraged to nurture their children’s heritage language with the help of other resources for further assistance. Unfortunately, the guide for preschools does not directly mention this. Since pre-primary schooling starts at two years of age, children with mother tongues other than Icelandic learn Icelandic extensively during the preschool years. Preschools educate children in the majority language, but also provide a learning environment based on multicultural studies pertaining to linguistically diverse students (Ministry of Education, Science and Culture, 2011).

A recent Icelandic case study on the home-school cooperation of successful immigrant students revealed that their pre-primary and compulsory schools did indeed establish good information flow and collaboration with parents that boosted their success (Ragnarsdóttir, 2015). Other research affirmed that immigrant parents tended to have positive views on language maintenance among preschool children. Parents were keen on teaching their children through various activities, such as frequent trips to their countries of origin (Mosty, Lefever, & Ragnarsdóttir, 2013). Woźniczka & Berman (2011) examined Polish parents’ reporting on their language interactions with their children at the compulsory school level and interviewed the children in Polish to corroborate their proficiency in Polish. In addition, they examined the children’s school grades in Icelandic. The researchers found that the children’s interactions with their parents and literacy activities at home, which were mainly in Polish, not only helped with their children’s Polish proficiency, but also corresponded to their achievement in Icelandic schools. This is in agreement with Figlarska’s (2015) results wherein she assessed the Icelandic and Polish vocabularies of pre-school students with
Polish parents and found that they correlated in that a larger Polish vocabulary resulted in a good Icelandic vocabulary, whereas a smaller Polish vocabulary correlated with a poorer Icelandic vocabulary.

More research is needed to get a more concrete view on the reality of the seemingly default type of FLP for linguistically diverse students that the National Curriculum Guide puts forward. It is important to focus on the different patterns of FLP and their effects on students’ literacy in Icelandic. Such is the case for the current study’s focus on FLP in an effort to find whether there is a relationship between the FLP in the home and phonological awareness. Phonological awareness in Icelandic has been found to be one of the underlying factors for Icelandic literacy and also has been said to have a strong correlation to further academic success, as discussed in the next section (Björnsdóttir, Einarsdóttir, & Simonardóttir, 2016).

2.3 Phonological awareness

Children develop their communicative skills from their environment through interactions, as explained in the last chapter. Included in children’s language processing is sensing how sounds are being manipulated in spoken words. Being aware and sensitive about the language’s phonological system, or how large and small sound units are used systematically in a particular language, is called phonological awareness. It refers to being able to detect, segment and use the sound elements that are organized together to make up meaning (Verhoeven, 2007).

Words are meanings formed by sound units that are put together systematically. According to studies, children as language learners tend to develop phonological awareness by learning to discriminate bigger sound units, such as syllables and words, to smaller ones, such as onsets and rimes, before they are able to recognize the smallest phonological units, called phonemes (Caroll, Bowyer-Crane, Duff, Hulme, & Snowling, 2011; Ziegler & Goswami, 2005). Take the monosyllabic words sit and lit. These two words may sound similar but different meanings are determined by their different initial phonological unit, or onset of /s/ versus /l/, although they have similar rime, or /it/. The phonemes refer to the individual sounds in the word, as in the case of sit having three phonemes /s/, /i/ and /t/. An example for a disyllabic word in Icelandic is fara (go). It has the onset /fa/ and rime /ra/, while its phonemes are /f/, /a/, /r/ and /a/.

Moreover, phonological tasks that test children’s phonological awareness include their ability to identify rhymes from a group of items such as hes-tur, les-tur, lás (horse, reading and lock); segment syllables, such as clapping the syllables in tala (speak), which are ta-la;
detect, blend and delete phonemes or syllables such as deleting *leik* (*play*) from *leikskóli* (*playschool*), which leaves *skóli* as *school*.

2.3.1 Phonological awareness as an emergent literacy skill

Phonological awareness has received great attention in the research and is said to be highly important in children’s literacy development simply because orthography, or the writing systems of a language, are based on spoken language (Goswami & Bryant, 1990; Hammer, et al., 2014). Therefore, children need to master the phonics of a spoken language, that concerns sound discrimination and sound development, before they can begin to connect each sound with the corresponding orthography and meaning of the language. It is called decoding when children learn to match letters to phonemes (Ziegler & Goswami, 2005). In a comprehensive analysis of literature on reading instruction, it was revealed that phonological awareness training helps improve children’s decoding and overall reading skills, including in children with reading difficulties (National Reading Panel, 2000).

More evidence shows how phonological awareness correlates with further reading and writing skills across languages. This, however, depends highly on the complexity of the language’s phonology and orthographical system (Goswami, 2006; Seymour, Aro, & Erskine, 2003). Children whose language has a more transparent and consistent phonology and orthography, such as Finnish, Italian and Spanish, tend to master decoding skills earlier than children whose language is less transparent and has more variations of sounds on a particular letter, such as English and French. This supports the orthographical depth hypothesis by Katz and Frost (1992) wherein children make better use of their phonological awareness when learning a language that has a transparent orthography because the letters directly relate to phonemes, whereas children will take longer to read when the sounds of letters vary in different words, such as the letter ‘a’ in *swan*, *bang*, and *relate*. This is because they tend to rely on visual lexical memory, which takes longer than relying on direct phonological representations of letters.

Phonological awareness is especially important in learning to read in languages in which phonemes match the grapheme (Bialystok, 2003). This is particularly true for Icelandic, as it has a transparent sound-spelling correspondence (Ziegler, et al., 2010; Einarsdóttir, Björnsdóttir, & Simonardóttir, 2016). According to Konráðsson (2007), Icelandic, to some extent, has a simple phonology with a moderate amount of speech sounds in comparison to other languages. He further claims that because Icelandic has minimal phonological differences in dialects, learning the correct Icelandic pronunciation becomes quite easy. This is discussed further in the next section.
2.3.2 Icelandic phonological awareness (IPA)

Pre-primary and compulsory schools acknowledge and emphasize the importance of increasing students’ phonological awareness. It is highly important to track young children’s development in these skills consistently to detect potential difficulties. There is a standardised measurement available to assess phonological awareness of Icelandic preschool children.

*HLJOM-2* is a standardised test in the form of a game to measure children’s IPA and is administered by trained teachers in the last year of pre-primary schooling (Símonardóttir, Einarsdóttir, & Björnsdóttir, 2002). This is used to evaluate possible at-risk students and to apply early intervention for those who score lower than the calculated minimum (Björnsdóttir, Símonardóttir, & Einarsdóttir, 2003). Apart from phonological tasks, there are also tasks that evaluate metalinguistic awareness, such as forming compound words and identifying homonyms or words that sound similar but have different meanings.

A longitudinal study that examined the relation between the results from the *HLJÓM-2* test to later educational attainment of students found that the test was a strong predictor of the latter (Einarsdóttir, Björnsdóttir, & Símonardóttir, 2016). The results of children’s phonological awareness highly correlated with their marks from the national standardised tests in Icelandic during the fourth, seventh and tenth grades of compulsory schooling. The results of this longitudinal study amplified the importance of developing phonological awareness among Icelandic pre-primary students for their further studies.

This measurement also accounted for age and gender differences. However, it has not been used to examine the relationship between monolingual students’ IPA with that of students who are exposed to more than one language. Phonological awareness among linguistically diverse children in Iceland has yet to be studied in depth. Part of the current study is the first analysis of linguistically diverse students’ phonological awareness in Iceland.

Research findings on phonological awareness of bilinguals have revealed its correlation with their subsequent literacy development. Bilinguals also seem to be at an advantage compared to monolinguals as their phonological awareness develops from two phonological systems, and that may have some impact on their literacy development. This is discussed in the next section.

2.3.3 Bilingual children’s phonological awareness

Being frequently exposed to two different phonological systems in their language environment, bilingual children tend to build up a bigger inventory of systematized sounds. This can assist with developing a stronger grasp of phonological awareness because of the
necessity to amplify their sense of the speech sounds and sound units are schematised not just in one but in two languages (Galambos & Goldin-Meadow, 1990). In an analysis of studies on second language learners, Hammers and colleagues (2014) found evidence suggesting that bilingual children learn to discriminate the phonological systems of their languages early on and that their phonological awareness tended to transfer across languages, leading them to catch up with monolingual peers when they reach preschool.

One of the key factors that influences the development of phonological awareness is language exposure and use. Although the studies mentioned in Section 2.2.1 illustrate the variety of linguistically diverse children’s FLPs, they mostly focused only on examining the relationship between FLP via how languages are maintained at home and the children’s vocabulary and oral comprehension abilities. A longitudinal study on monolingual infants posited that language development in the early years, including vocabulary growth, is predicted by infants’ phonetic perception, which indicates the importance of phonological awareness in later language acquisition (Tsao, Liu, & Kuhl, 2004). Because the home is the primary language environment of infants, it is found to have a great impact on children’s literacy skills in both languages. It is highly relevant to examine this further, especially among bilingual children.

An investigation on Korean-English preschool children found that their phonological awareness was determined by the amount of exposure and use of each language (Kim, 2009). Another study supported this finding in that phonological memory skills of two-year-old Spanish-English bilinguals were affected by their language exposure and that the more language exposure, the better the phonological awareness (Parra, Hoff, & Core, 2011). In addition to exposure, phonological awareness of bilinguals can also depend on language-specific factors, such as bilinguals who may have an advantage when the second language has a simpler phonology than the L1 (Bialystok, 2003; Loizou & Stuart, 2003).

In essence, studies abroad postulate that bilingual children may be at an advantage in terms of phonological awareness as they are more inclined to develop a sensitivity towards the phonological structure of both of their languages. However, this depends on the amount of exposure and usage of languages around and by these children. Although there are studies on IPA revealing its significance on students’ subsequent literacy skills, there is currently a lack of studies focusing on the IPA of linguistically diverse children. This brings us to the purpose of this current study.
2.4 Summary of the literature and purpose of the study

There is a growing diversity in schools in Iceland. According to studies, students with Icelandic as a second language generally fall behind their peers in terms of Icelandic literacy (Ólafsdóttir, Birgisdóttir, Ragnarsdóttir, & Skúlason, 2016; Thordardottir & Juliusdottir, 2012). This has called for additional measures for improvement in Icelandic education.

More and more Icelandic students are linguistically diverse because of their origin and language experience, but the exact number of these students is currently unknown. This signifies the importance for schools, as well as in the academic field, of acknowledging and providing a learning environment designed to support varied linguistic upbringings. In respect to the growing linguistic diversity, part of this study maps out the language repertoire of these students that can be then elaborated on by what and how languages are maintained at home, otherwise called the FLP.

Although immigrant languages are believed and acknowledged to be important in children’s acquisition of Icelandic as a second language, administrative support for their family languages is still lacking. Schools are required to collaborate with parents who currently shoulder the responsibility of maintaining the family language and cultivating their children’s interest in active bilingualism. According to the National Curriculum Guide, this role presents only one type of family language policy. This entails having parents who are well-informed about active bilingualism, have the capabilities to and are able to manage and cultivate successful bilinguals. However, the academic literature abroad explained in this chapter highlighted the complexity and differences in families’ language attitudes, maintenance and management of linguistically diverse students, which consequently affect children’s bilingual development, especially whether they develop passive or active bilingualism. This complexity and variety of FLP might also apply among linguistically diverse students’ FLPs in Iceland.

In addition, emphasis on Icelandic phonological awareness is accentuated in this study, which has been found to be highly relevant on further literacy development. This also applies to linguistically diverse students and being exposed to and having to learn the phonological systems of their languages may even give them an advantage. Research findings have also shown how phonological awareness transfers between languages depending on cross-linguistic factors. Pre-primary and compulsory schools actively educate students and promote Icelandic language development and early literacy skills. Preschools also have access to a standardized measurement to identify students’ phonological awareness. Therefore, it is quite important to use and analyse the results, especially concerning linguistically diverse students.
The purpose of this study focuses on how the FLPs of linguistically diverse students and their phonological awareness are associated. It is the aim of this research to map the patterns of FLP among the research group, their phonological awareness and to find whether these two aspects are significantly associated. This has not been studied in Iceland and therefore its implications can be used by educational institutions and professionals to further their knowledge and to guide policies and implementations aimed at supporting actively bilingual children. As mentioned in the introduction, this is a quantitative study with a threefold aim: to give a description of patterns in FLPs among bi- or plurilingual children in Icelandic preschools, referred to as linguistically diverse students in this research; to analyse their IPA results; and to study the relationship between their IPAs and FLPs.
3 Methodology

The target population for this study was identified as children who used or were exposed to more than one language in their daily lives, currently in their last year of preschool and had recently taken the HLJÓM-2 screening test on IPA. These were ultimately children born in 2011. Due to the lack of accurate statistical information on this target group, preschools were asked to identify potential participants. Multistage cluster sampling was used to pick two areas in Iceland to request participation from the heads of the schools (Creswell, 2015). Information and consent forms were sent to 64 preschools in Reykjavik and 15 preschools in the Sudurnes area. A convenience sampling method was then used in order to collect responses according to the availability of the preschools and the target participants (Creswell, 2015). Heads of preschools who were available for the study distributed the parental consent forms and FLP questionnaires to target participants. Either one or both parents acted as the information provider for the rest of the household and answered the questionnaire. Both single-parent families and dual-parent families were invited to participate in the study. As an attempt to maximize the number of participants, the consent forms and FLP questionnaire were available in nine languages: English, Filipino, Icelandic, Mandarin Chinese, Polish, Russian, Serbian, Spanish, and Thai.

Parents answered the questionnaire about their FLPs and returned them within two days. Some preschools claimed to help the parents who lacked literacy skills in answering the questionnaire. Data were gathered at the preschools over two months in the spring of 2017, and a total 45 responses were received out of the 69 questionnaires distributed in six Reykjavik preschools and nine from the Sudurnes area. Thus, there was a 65% response rate from parents in the participating preschools. Additional follow-up e-mails and phone calls were also done to clarify responses. Children who neither used nor were exposed to more languages than Icelandic or whose children did not take the HLJÓM-2 screening test were excluded in the sample. The reasons for the children who were not subjected to the screening test ranged from being absolute newcomers to the country to those with diagnosed development delays.

3.1 Instruments

FLP Questionnaire

The FLP questionnaire was an adaptation from Slavkov (2016). The 35 questions were grouped into a general information section and five other sections. The first and second sections were about the parents’ linguistic backgrounds and frequency of the languages
used within the family. Home language patterns were derived from the most frequent child-directed language(s) used by parents. When parents used only one language, their responses were recoded either as majority language at home (Maj@H) or minority language at home (ML@H). For parents who used two or more languages more frequently, their responses were recoded into either one-parent-one-language (OPOL) or mixed languages. The third and fourth sections were about the languages spoken and understood by their children and the frequency of languages used in their children’s weekly activities. The final section was on language attitudes and involvement in their children’s language development based on a five-point scale ranging from strongly disagree to strongly agree.

**HLJÓM-2 Screening test**

For measuring IPA, the *HLJÓM-2* screening test was used. This standardised screening test was based on six studies by Símonardóttir, Einarsdóttir and Björnsdóttir (2002). It is a tool to screen children at risk of literacy delays based on scoring below the average performance level on IPA, so as to apply necessary interventions (Björnsdóttir, Símonardóttir, & Einarsdóttir, 2003). According to a survey in 205 preschools in the country, 97% performed the screening test at the time when there was a total of 276 total preschools nation-wide (Þórarinsdóttir M., Harðardóttir, Alfreðsdóttir, Bjarkalund, & Agnarsdóttir, 2010).

Furthermore, the test is a composite of seven subtests with a very good reliability coefficient of $\alpha = .91$ (Símonardóttir, Einarsdóttir, & Björnsdóttir, 2002). It has a total of 71 items: identifying rhyme (12), syllable segmentation (8), phoneme identification (15), deletion of compound words (10) and blending phonemes to form words (8). Included in the composite are metalinguistic awareness tasks that involve compounding two words (10) and identifying homonyms (8). The reliability of each of the seven subtests ranged from .58 to .86.

Administered only by preschool professionals who have undergone *HLJÓM-2* training, the test itself is designed as a game and used on pre-schoolers in their last school year. As stated in the handbook, the screening test is conducted on children from ages 4 years and 10 months to 6 years and 1 month. The children’s ages are divided into four age groups: $1^{\text{st}} = 4:10-5:1$, $2^{\text{nd}} = 5:2-5:5$, $3^{\text{rd}} = 5:6-5:9$, and $4^{\text{th}} = 5:10-6:1$. While the average performance score in a study among 1540 children was 43.9, $SD = 14.0$, the study suggested that age-appropriate performance scores were divided into four performance ranks along with the percentage of children who fell into each rank: very low (10%), low (15%), average (50%) and high score (25%) (2002, p. 51).
3.2 Data Analysis

Quantitative analyses were run in SPSS Version 20 (IBM Corp., 2011) which included descriptive statistics, independent t-tests and ANOVA tests. Statistical significance was set at 0.05. In analysing the associations between FLP and IPA, different ANOVA tests were used according to the type of variables (Morgan, Reichert, & Harison, 2016). One-way ANOVA was used to find whether the children’s HLIÓM-2 scores of up to 71 points were associated with different FLP variables. Levene’s tests were conducted to check the homogeneity of variance beforehand. Alternatively, a Welch ANOVA was also used when the variance was significantly dissimilar (Moder, 2010). Post-hoc Tukey HSD was conducted to assess the pairwise differences after ANOVA. Moreover, Kruskal-Wallis ANOVA, a nonparametric test, was applied to find whether or not the children’s HLIÓM-2 performance ranks (very low, low, average and high) were significantly associated with some FLP variables, although no significant pairwise comparisons nor trend analyses were made again due to lack of cases in our data set.

3.3 Ethical considerations

The Icelandic Data Protection Authority (Persónuvernd) was informed about the details of this study under the no. S8289/2017. Data processing was in accordance with the Icelandic data protection laws and regulations. There were consent forms signed by preschool heads and the participants’ parents or legal guardians. Consent forms included the details of the study, their approval for participation in answering the questionnaire and permission for the investigator to access their child’s HLIÓM-2 results. The participants’ and their children’s anonymity was ensured and they had the right to withdraw at any time. Additionally, participants and participating preschools had access to the researcher’s contact details should they need to get in touch. All the raw and personal data gathered would be deleted and destroyed after the culmination of the study.
CHAPTER NUMBER ___

Linguistically Diverse Children in Iceland:
Family Language Policy and Icelandic Phonological Awareness

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Abstract

Icelandic schools are faced with increasing diversity on account of students’ various forms of linguistic upbringing. The National Curriculum Guide emphasises the importance of schools and parents in fostering active bilingualism among students with mother tongues other than Icelandic (Ministry of Education, Science and Culture, 2014a). Research about these students tends to focus on their Icelandic literacy and findings often imply that they generally struggle to achieve literacy benchmarks (Ólafsdóttir & Sigurðsson, 2017; Ólafsdóttir, Birgisdóttir, Ragnarsson, & Skúlason, 2016). Studies have found phonological awareness to be an important factor for subsequent literacy development, both for monolingual and bilingual children (Goswami & Bryant, 1990; Hammer, et al., 2014). This is also reported to be highly correlated with Icelandic students’ achievement throughout compulsory schooling (Einarsdóttir, Björnsdóttir, & Símonardóttir, 2016). Furthermore, research reveals that bilingual children tend to develop phonological awareness in both their languages quite early and that this skill transfers between their languages leading them to build a stronger grasp thereof (Hammer, et al., 2014; Parra, Hoff, & Core, 2011). The purpose of this study is threefold. The first is to describe the common language ideologies, methods, and oversight in the family settings of linguistically diverse children, referred to as the family language policy (FLP) (King & Fogle, 2013). The second aim is to evaluate these children’s Icelandic phonological awareness (IPA) in preschools. Lastly, this study seeks to analyse the associations between FLP and IPA among linguistically diverse students in Iceland. Quantitative data were gathered from children in their last preschool year (N = 45) via their results from the HLJOM-2 standardised screening test of IPA and from their parents’ responses on the FLP questionnaire. Our findings suggested that children’s families have various embodiments of FLP reflected in their different sociolinguistic circumstances and habits. However, contrary to foreign studies, our findings revealed that the mean score of the participants’ HLJOM-2 results was less than the national average and that a higher percentage scored below average. Lastly, some significant associations were found between some aspects of children’s FLP and IPA. Results are discussed and some implications are suggested.
**Introduction**

Icelandic pre-primary and compulsory institutions are faced with steadily increasing linguistic diversity among students characterised by their family’s origin (Statistics Iceland, 2016a). As literacy is one of the fundamental pillars of education in the Icelandic National Curriculum Guides for these two levels, schools aim to provide all students with the opportunity for literacy development and to reach the literacy criteria set for them (Ministry of Education, Science and Culture, 2011; 2014a). However, studies have shown that, on average, students with Icelandic as a second language tend to have literacy difficulties and generally struggle in attaining those criteria (Ólafsdóttir & Sigurðsson, 2017; Thordardottir & Juliusdottir, 2012). Furthermore, there is a tendency towards a persistent gap in vocabulary and reading comprehension skills among students who have Icelandic as a mother tongue and those who have it as a second language throughout compulsory schooling, the latter lagging behind the former (Ólafsdóttir, Birgisdóttir, Ragnarsdóttir, & Skúlason, 2016).

Little is known about linguistically diverse children and their emergent literacy skills prior to starting compulsory schooling in Iceland. This is, therefore, the core of our study. We investigated children in Iceland who were exposed to more than one language, their phonological awareness in Icelandic and whether these were associated. The first aim was to better capture the children’s diverse language repertoire through an analysis of their family language policy, henceforth FLP, and whether it would be as diverse as indicated by the findings from foreign studies (Slavkov, 2016; De Houwer, 2007). Another focus of this study was to examine their Icelandic phonological awareness, henceforth IPA, as part of their emergent literacy skills. This was to explore whether, as suggested by research abroad, the children also accumulated a stronger grasp of phonological awareness of both languages due to a larger inventory of speech sounds from their respective languages than that of children exposed to only one language (Hammer, et al., 2014; Galambos & Goldin-Meadow, 1990). The third aim was to explore the association between children’s FLPs and IPAs, taking into account the findings that bilingual children’s FLPs have an influence on their phonological awareness (Schwartz & Verschik, 2013; Parra, Hoff, & Core, 2011; Kim, 2009).

This chapter is organised into the following sections: description of the Icelandic context, review of literature on the concepts FLP and children’s IPA, description of the methodology used, and presentation and discussion of the results.

**Review of literature**

**The Icelandic context**

According to Spolsky (2004), Iceland has managed to maintain a purist language policy throughout the country’s history. There are essentially few changes in the Icelandic language since the age of settlement (Hilmarsson-Dunn & Kristinsson, 2010). However, as globalisation has increased in terms of economy, migration, and technology, the widespread use of English has made its way into different societal domains in the country and was deemed to be “Iceland’s second domestic language” (Albury, 2014, p. 118). Apart from that, an increasing number of foreign language minorities has also emerged due to continuous influx from migration (ibid.).

These linguistic changes in the country prompted the Icelandic Language Committee (Íslensk málnefnd), the government advisory panel on issues concerning the Icelandic language, together with the Ministry of Education, Science and Culture to draft the first official language policy of the country called the Icelandic for Everything – Language Policy (Íslenska til alls – málstefna) (Ministry of Education, Science and Culture, 2008). This policy included the need for a more rigorous Icelandic language policy throughout the education system, giving children more opportunities to learn, use and be exposed to the Icelandic language in their daily lives.

According to another report, most administrative actions indicated in the policy have been implemented (Icelandic Language Council, 2015). A clear example of this is the National Agreement on Literacy administered by the Directorate of Education (Meintamálastofnun), which aims to increase Icelandic literacy skills and success in education among students in pre-primary, compulsory and upper secondary schools (Ministry of Education, Science and Culture, 2014b). Entailed in this is added encouragement for parents’ active role in their children’s literacy development. In essence, a comprehensive national language policy is being enforced in the society, including education.
The Icelandic pre-primary level is the first stage in the Icelandic education system (Ministry of Education, Science and Culture 2011). Although not mandatory, over 95% of children between the ages of two and six attend preschools for seven to nine hours daily (Statistics Iceland, 2016a). This level focuses on social and language development of all children, with an emphasis on parent-preschool collaboration. The preschools foster children’s emergent literacy skills, such as IPA, to assist them before starting compulsory schooling where they are taught to read.

The percentage of children with a language other than Icelandic at home has increased in the past years; the percentage in preschools was 12.6% and 8.1% in the compulsory level in 2016, with more than 47 different home languages in the country (Statistics Iceland, 2016a). This census is determined by children who have either or both immigrant parents. Thus, children’s linguistic diversity is often classified according to their parents’ origin. Excluded in these figures are children who have learned other languages through experiential circumstances, such as those with no foreign origin but who have lived abroad and returned, or those with bilingual parents but are native Icelanders. Consequently, there are no figures taking both origin and experience in languages into account when tallying children’s linguistic diversity.

**Family Language Policy**

In schools, different terms have been used to refer to students exposed to more than one language regularly. Again, these terms commonly focus on their parents’ background or mother tongue, such as ‘students with a mother tongue other than Icelandic’, ‘students with Icelandic as a second language’, and ‘students with a foreign background’ (Danielsdóttir, Jóansson, & Sigurðardóttir, 2010). Using the concept of FLP, school communities can capture the children’s diverse language repertoire more broadly. FLP refers to how the languages are chosen, planned and managed in the family (King & Fogle, 2013; King, Fogle, & Logan-Terry, 2008). It acknowledges the critical role of linguistic upbringing based on children’s bilingual development. This field of study also anticipates the possibility of changes to the FLP over time due to varying familial circumstances (Schwartz & Verschik, 2013; Schwartz M., 2010).

FLP studies imply that there are different patterns of family language choice, use, and maintenance that have an impact on children’s language outcomes. For instance, the more exposed children are to both languages in the family, the higher the possibility of them developing active use, understanding and speaking of both languages (Slavkov, 2016; Hammer, et al., 2014; De Houwer, 2007). Studies have also linked home literacy exposure to bilingual preschool children’s emergent literacy skills in the same manner, such that frequent reading by parents, alongside the abundance of books for children at home, predicted a better vocabulary and comprehension in both the children’s languages (Lewis, Sandilos, Hammer, & Sawyer, 2015; Vagh, Pan, & Mancilla-Martinez, 2009). However, studies suggest that the languages of children being raised in a linguistically diverse setting generally tend to develop irregularly because of unequal proportions of language use and available resources (De Houwer, 2009). Furthermore, according to De Houwer (2013), the success of an FLP can influence the experience in what she called a continuum of bilingual development where harmonious and conflicted are at the opposite ends. She proposes to focus on factors which promote the family’s well-being in their bi- or multilingual family setting. According to her, harmonious bilingual development constitutes a positive experience in parent-child communication including the child’s proficiency and ability to use both languages relatively equally. This is similar to Kopeliovich’s (2013) term happylinguals when referring to raising bi- or multilingual children. She concluded that a successful FLP requires parents to not only be well-informed, highly motivated, and correspondingly committed towards fostering the children’s linguistic skills in both languages but also be able to cater to their children’s varying linguistic needs and well-being.

In Iceland, a particular FLP is mentioned by the Ministry of Education in the National Curriculum Guide for Compulsory Schools (Ministry of Education, Science and Culture, 2014a). This places a clear responsibility on foreign-speaking families to maintain their home languages other than Icelandic, but also encourages the child to learn both Icelandic and their home language. It states that:

The family plays a significant role in creating a climate of respect for both languages, encouraging and nurturing them, and in maintaining the interest of pupils in active bilingualism (2014a, p. 107).
Qualitative studies indicate that foreign-speaking parents have a positive attitude towards raising their children bilingually in Iceland and that their children generally fare well in preschools (Mosty, LeFever, & Ragnarsdóttir, 2013) and in compulsory schools (Wozniczka & Berman, 2011). However, other studies on literacy show that, in general, these children perform significantly lower than the standards throughout compulsory schooling (Thordardóttir & Juliusdottir, 2012; Ólafsdóttir, Birgisdóttir, Ragnarsdóttir, & Skúlason, 2016). This is also the case according to research in preschools by Haraldsdóttir (2013) and Figlarska (2015). Even though most bilingual students in these studies were born and raised in Iceland, results showed that their Icelandic vocabulary was considerably lacking.

Here we have explained the importance of linguistically diverse children’s FLPs. Equally relevant is to study their literacy development. The next section focuses on phonological awareness, which has been found to be highly associated with subsequent literacy skills.

Phonological Awareness

Phonological awareness refers to the ability to sense and distinguish the speech sounds and how they are organised systematically together to build meanings (Verhoeven, 2007). Given the fact that Icelandic has a rather transparent orthographic system, or straightforward letter-sound correspondence, IPA is particularly integral in developing further literacy skills (Ziegler, et al., 2010; Bialystok, 2003). For this reason, fostering children’s IPA is also emphasised in Icelandic preschools as part of their literacy development (Ministry of Education, Science and Culture, 2011). A standardised screening test, Hljóm-2 (Simonardóttir, Einarsdóttir and Björnsdóttir 2002), in the form of game is widely used to evaluate children’s IPA during their last year of preschool (Pórarinsdóttir M. H., Harðardóttir, Alfreðsdóttir, Bjarkalund, & Ágnarsdóttir, 2010). The age-appropriate screening test is divided into seven tasks measuring phonological and metalinguistic awareness. According to a longitudinal study, children’s Hljóm-2 performance significantly predicted their academic achievement throughout the compulsory school level (Einarsdóttir, Björnsdóttir, & Simonardóttir, 2016). The better the children’s IPA during preschool, the better their achievements in the national test results in the 4th, 7th and 10th grades in Icelandic and mathematics. However, IPA of linguistically diverse children has yet to be examined in Iceland.

Research abroad on bilingual children’s phonological awareness postulate they may be at an advantage because of their constant exposure to two different phonological systems gives them an additional need to sense, distinguish and differentiate speech sounds. Hence, they are more inclined to construct a wider inventory of speech sounds based on the two different phonological systems in their immediate daily language environment (Galambos & Goldin-Meadow, 1990). Additionally, studies show that bilinguals tend to differentiate the two phonological systems very early (Hammer, et al., 2014). The study of Hamer and colleagues (2014) posits that bilingual children’s phonological awareness transfers between languages. Accordingly, bilingual children’s amount of exposure to and use of both languages is highly relevant to the development of their phonological awareness in both languages (Parra, Hoff, & Core, 2011; Kim, 2009).

To summarize the above sections, we have explored the context of Iceland having a strong Icelandic language policy. We also explained concepts and presented some pertinent findings on FLP and phonological awareness studies.

Methods

Participants

Preschool children born in 2011, regularly exposed to more than one language and have taken the Hljóm-2 screening test on IPA were considered. The target group consisted of children who had either one or both foreign-born parents, Icelanders returning after having lived abroad or who are bilingual or multilingual themselves. Since no information was found on this target population, participating preschools were asked to identify the relevant students. By applying a multistage cluster sampling method, the consent forms were sent to 64 heads of preschools in Reykjavík city and 15 in the Suðurnes area on the southwest coast of Iceland (Creswell, 2012). A convenience sampling method was then used to request for participation (Creswell, 2012). Of the 15 preschools that participated in the study, six were from Reykjavík and nine from the Suðurnes area. The questionnaire and consent forms were then sent to the parents of 69 children whom the preschools reported as belonging to the target group.
They were available in nine different languages to increase the response rate from parents. The languages were English, Filipino, Icelandic, Mandarin Chinese, Spanish, Polish, Russian, Serbian and Thai. Either or both parents answered the questionnaire in their preferred language and returned it to the preschool within two days. Additional e-mails and phone calls were made for queries and clarifications. Only 45 responses were received, giving a response rate of 65%. There were slightly more boys than girls in the study, as indicated in Table 1. The mean age was 5.85 (N = 45), SD = .29 and age ranged from 5.38 - 6.32.

Table 4. 1 Participants

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Preschools</th>
<th>Children (%)</th>
<th>Sex</th>
<th>Frequency (%)</th>
<th>Mean age (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suðurnes</td>
<td>9</td>
<td>29 (64%)</td>
<td>Females</td>
<td>21 (47%)</td>
<td>5.82 (.27)</td>
</tr>
<tr>
<td>Reykjavik</td>
<td>6</td>
<td>16 (36%)</td>
<td>Males</td>
<td>24 (53%)</td>
<td>5.90 (.31)</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>45 (100%)</td>
<td>Total</td>
<td>45 (100%)</td>
<td>5.86 (.29)</td>
</tr>
</tbody>
</table>

**Instruments**

**FLP Questionnaire.** The information on the children’s FLPs was collected through a 35 item questionnaire adapted from Slavkov (2016). It was modified to accommodate local conditions, pre-tested by five respondents and revised thereafter. Questions were divided into a general information section and five other sections. The first and second sections were about the parents’ linguistic background and frequency of the languages used within the family. Home language patterns derived from the most frequent child-directed language(s) used by parents. When parents used only one language, their responses were coded either as majority language at home (Maj@H) or minority language at home (ML@H). For parents who used two or more languages more frequently, their responses were coded into either one-parent-one-language (OPOL) or mixed languages. The third and fourth sections were about the languages spoken and understood by their children and the frequency of languages used in their children’s weekly activities. The final section was about language attitudes and involvement in the children’s language development based on a five-point scale ranging from strongly disagree to strongly agree.

**HLJÓM-2 Screening test.** The HLJÓM-2 screening test is based on six studies by Símonardóttir, Einarsdóttir and Björnsdóttir (2002) and is used to measure the IPA of children in their last year of preschool. The test is a composite of seven subsets with a very good reliability coefficient of \( \alpha = .91 \) (Simonardóttir, Einarsdóttir, & Björnsdóttir, 2002). It has a total of 71 items grouped into different phonological tasks: identifying rhyme (12), syllable segmentation (8), phoneme identification (15), and combination of phonemes to form words (8). Included in the composite are metalinguistic awareness tasks that involve compounding two words (10), deletion of compound words (10) and identifying homonyms (8). The reliability of each of the seven subtests ranged from .58 to .86. As stated in the handbook, the test is given to children from ages 4 years and 10 months to 6 years and 1 month. The children’s ages are divided into four age groups: (1) 4:10-5:1, (2) 5:2-5:5, (3) 5:6-5:9, and (4) 5:10-6:1. The average performance score in a study was 43.9 (N = 1540), SD = 14.0. However, the study in the handbook suggested that age-appropriate performance scores could be divided into four performance ranks along with the percentage of children who fell into each rank: very low (10%), low (15%), average (50%) and high score (25%) (Símonardóttir, Einarsdóttir, & Björnsdóttir, 2002, p. 51). Administered only by preschool professionals who have undergone HLJÓM-2 training, the test is designed as a short game. The test is conducted in the beginning of the school year and repeated in the end of the school year for those who scored less than average. Only the first results were analysed in this study.

**Data Analysis**

Quantitative analyses were run in SPSS Version 20 (IBM Corp., 2011) and included descriptive statistics, independent t-tests and ANOVA tests. Statistical significance was set at 0.05. In analysing the associations between FLP and IPA, different ANOVA tests were used according to the types of variables (Morgan, Reichert, & Harison, 2016). One-way ANOVA was used to find whether the children’s HLJÓM-2 scores of up to 71 points were associated with different FLP variables. Levene’s tests were conducted to check the homogeneity of variance beforehand. Alternatively, Welch ANOVA was also used when the variance was significantly dissimilar (Moder,

1 The questionnaire is available by request.
Post-hoc Tukey HSD was conducted to assess the pairwise differences after ANOVA. Moreover, Kruskal-Wallis ANOVA, a nonparametric test, was applied to find whether or not the children’s HLJÓM-2 performance ranks (very low, low, average and high) were significantly associated with some FLP variables, although no significant pairwise comparisons nor trend analyses were made due to the lack of cases in our data set.

The personal data collected in this research were strictly confidential and anonymous. Appropriate measures were conducted in collecting, processing and securing the data. The study was reported to the Icelandic Data Protection Authority (Persónuvernd) under the no. S8289/2017.

**Results**

**General attributes of children’s FLPs**

**Linguistic characteristics of parents.** Of the 45 children in the sample, three were in single-parent households. The rest contained responses on parents’ linguistic characteristics for dual-parent households. The 45 mothers and 42 fathers named 21 different birth countries: 26 were born in Poland, 18 in Iceland, eight in the Philippines, five in Lithuania and three in Serbia. One or two parents named 16 other birth countries. The combinations of parents’ birth countries in each household are shown in Figure 4.1.

![Figure 4.1 Combination of parents’ birth countries in each household](image)

Table 2 shows the parents’ languages. While most listed one native language, three mothers and four fathers had two native languages. They also had at least one second language, except for two parents. There were 24 mothers (53.3%) and 17 fathers (40.5%) who had Icelandic as a second language while 34 mothers (75.6%) and 32 fathers (76.2%) learned English as a second language. There were 24 native languages and 19 second languages enumerated by parents or 30 languages altogether as described in Table 4.2.

<table>
<thead>
<tr>
<th>Parents’ languages</th>
<th>Children’s languages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Understood</td>
</tr>
<tr>
<td><strong>Polish</strong></td>
<td>13</td>
</tr>
<tr>
<td><strong>Icelandic</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Filipino</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Lithuanian</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Dutch</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.2 Parents and children’s languages
Frequency of languages used in the household by parents. Parents from 27 households (60.0%) claimed they did not have a particular home language arrangement, as indicated in Table 4.3. Among the 10 households that generally used Maj@H, some did not have a specific rule. There were 16 cases that used ML@H and nine cases of OPOL. Others arrangements were named, such as mixing the languages depending on circumstances, using a second language and Icelandic, and having a grandparent in the household who used one language while the parent used another. Parents revealed varied responses when asked how often the majority and minority languages were used when addressing their child. After recording the valid responses, the most frequent language used by parents with their children could be graphed into the different home language patterns illustrated in Figure 4.2. The use of ML@H was the most common trend, followed by mixed languages where at least one parent in the household used two or more languages equally when speaking with the child. It was less common to use Maj@H and OPOL. These results suggested that all parents had varying language choice and use with their children, although they might not be aware of a particular pattern.

Table 4.3 Home language rule or arrangement

<table>
<thead>
<tr>
<th>Language arrangements</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No arrangement or rules in family language</td>
<td>14</td>
<td>31.1%</td>
</tr>
<tr>
<td>No arrangement or rules in family language but Icelandic is generally used (Maj@H)</td>
<td>4</td>
<td>8.9%</td>
</tr>
<tr>
<td>No arrangement or rules in family language but parents’ language other than Icelandic is generally used (ML@H)</td>
<td>9</td>
<td>20.0%</td>
</tr>
<tr>
<td>Yes, the rule is to use the parents’ language other than Icelandic (ML@H)</td>
<td>6</td>
<td>13.3%</td>
</tr>
<tr>
<td>Yes, we use the one-parent-one-language rule (OPOL)</td>
<td>9</td>
<td>20.0%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>6.7%</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Parents’ language attitudes. The parents’ agreement to the statements on their child’s bilingual development had a relatively moderate consistency of $\alpha = .51$. All the parents agreed on the importance of their child learning Icelandic, although not everyone wanted their child to learn their minority language (Table 4.4). Although 95.5% of the parents deemed it possible for their child to be proficient in both languages, only 79.6% of the respondents thought this could easily be done and only a bit over half had the necessary resources to facilitate this.

When asked whom they turn to for advice on their child’s bilingualism, most parents preferred preschool teachers (83.7%). Less frequently picked were friends (41.9%), specialists and other professionals (39.5%), and family members and relatives (27.9%). However, they also claimed that their most used materials for gathering information on their child’s bilingual development were search engines (71.0%), booklets and information from the preschool and specialists (45.2%), websites (31.0%) and books on bilingualism (16.7%).

Children’s linguistic characteristics. The children were mostly born in Iceland (80.0%; $n = 36$), although one had lived abroad. The rest (20.0%), were born in six foreign countries, namely: Belgium, Malaysia, Norway, Poland, Serbia and the USA. They moved to Iceland between the ages of three and five. Two of them resided in the country for 9 months, the shortest residence time in the sample.

All the children spoke and understood Icelandic, as indicated in Tables 4.2 and 4.5. However, this was not the case for their minority languages. There were 32 children (71.1%) who could both understand and speak Icelandic as well as their minority languages, as shown in Table 4.5.

Table 4.4 Parents’ language attitudes

<table>
<thead>
<tr>
<th>Statements</th>
<th>N</th>
<th>M</th>
<th>Mode</th>
<th>SD</th>
<th>Strongly/ slightly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly/ slightly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important for my child to learn Icelandic.</td>
<td>44</td>
<td>4.93</td>
<td>5</td>
<td>.26</td>
<td>44 (100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is possible for my child to be proficient in both languages.</td>
<td>44</td>
<td>4.77</td>
<td>5</td>
<td>.61</td>
<td>1 (2.3%)</td>
<td>1 (2.3%)</td>
<td>42 (95.5%)</td>
</tr>
<tr>
<td>We want our child to also learn our language other than Icelandic.</td>
<td>43</td>
<td>4.56</td>
<td>5</td>
<td>.93</td>
<td>2 (4.6%)</td>
<td>4 (9.3%)</td>
<td>37 (86.0%)</td>
</tr>
<tr>
<td>It is easy to raise my child to be an active bilingual.</td>
<td>44</td>
<td>4.16</td>
<td>5</td>
<td>1.12</td>
<td>6 (13.7%)</td>
<td>3 (6.8%)</td>
<td>35 (79.6%)</td>
</tr>
<tr>
<td>We have all the resources for it to raise my child with active bilingualism.</td>
<td>42</td>
<td>3.98</td>
<td>5</td>
<td>1.05</td>
<td>4 (9.5%)</td>
<td>11 (24.4%)</td>
<td>27 (64.3%)</td>
</tr>
</tbody>
</table>

Note: Indexes used a 5-point Likert scale of agreement where 1 was ‘strongly disagree’ and 5 was strongly agree’.

Figure 4.2 Home language arrangements
Children’s language use with family members also showed some variations within the sample. This measure showed a consistency of language spoken across family members of $\alpha = .89$. The general trend was that children either used Icelandic or minority languages with their family members (Figure 4.3). In this sample, considerably more children chose to speak Icelandic with their mothers, fathers and siblings, while minority languages were mostly spoken with other relatives at home. Less than half of the children preferred to speak their minority language with all their family members, while a small percentage chose to mix both languages.

### Languages understood and spoken by children

<table>
<thead>
<tr>
<th>Maj@H</th>
<th>ML@H</th>
<th>OPOL</th>
<th>Mixed languages</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$n = 3$</td>
<td>$n = 23$</td>
<td>$n = 7$</td>
<td>$n = 12$</td>
<td>$N = 45$</td>
</tr>
<tr>
<td>Icelandic (U + S)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Icelandic (U + S), AB/C (U)</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Icelandic (U + S), AB/C (U + S [-1])</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Icelandic (U + S), AB/C (U + S)</td>
<td>-</td>
<td>20</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>23</td>
<td>7</td>
<td>12</td>
</tr>
</tbody>
</table>

*Note: U = Understood, S = Spoken, AB/C = Minority languages and [-1] meant one of the minority languages was not spoken.*

### Languages in children’s activities

When reading to their children, 18 mothers (40.0%) and 10 fathers (23.8%) read in Icelandic, while minority languages were mainly used by 17 mothers (37.8%) and 27 fathers (64.3%). The rest used both languages equally when reading to their child, except for one case where the parents did not read at all.

On a weekly basis, only six children attended minority language classes. Additionally, only 15 (33.3%) visited the library monthly and the rest visited less frequently. The books children owned was assessed using a six-point scale ($0 = $none, $1 = 1-10$, $2 = 21-30$, $3 = 31-40$, $4 = 31-50$, $5 = $more than 50) and children had a mean of $2.38$, $SD = 1.5$ on Icelandic books and $2.42$, $SD = 1.6$ in minority languages. Furthermore, 10 (22.2%) children had lived abroad, five of whom either had one or both Icelandic parents. Twenty-three (51.1%) of them went on frequent trips to the countries where the minority languages were spoken, while the rest made occasional trips.
Parents reported some trends in the languages their children used in other activities as portrayed in Figure 4.4. Children watched television and online videos mostly in their minority languages. Interestingly, English as the children’s additional language was a popular language when playing computer games and watching online videos (children who had lived in English-speaking countries or whose parents had English as a native language were excluded here). Icelandic was more preferred when watching movies in the cinema, playing with other children, singing and listening to music.

**IPA through HLJÓM-2 Screening test**

The children in this study had an average age of 5.36, $SD = .32$ when they took the screening test. The children filled the age groupings as reported in the handbook, wherein 15 children belonged in the 1st age group, 16 in the 2nd age group, 13 in the 3rd age group and only 1 in the 4th age group.

**Figure 4.4 Most often used language in children's weekly activities**

**Figure 4.5 HLJÓM-2 scores**
As illustrated in Figure 4.5, the average score was 40.0, SD = 13.9. Using an independent t-test, the mean for boys (38.4, SD = 14.3) was not found to significantly differ to the mean for girls 41.8, SD = 13.7; t(43) = -.799, p = .43. The distributions were approximately normal with a skewness value of .24 (SE = .501) and a kurtosis value of -1.23 (SE = .972) for girls, while the values for boys were - .93 (SE = .472) and .41 (SE = .918), respectively. The overall skewness value was -.85 (SE = .354), with -.40 (SE = .695) for the overall kurtosis. The values fell between -1.96 and 1.96, therefore the sample could be assumed to be approximately normally distributed (Cramer & Howitt, 2004).

With the calculated performance ranks, which differed among age groups, the majority of the students in this study had average or high scores as indicated in Table 4.6. However, overall results revealed that more children in this study ranked below average as compared to the national results.

Table 4.6 HLIJÖM-2 performance scores

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Overall</th>
<th>National Percentage figures*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Very low score</td>
<td>6 (13)</td>
<td>5 (11)</td>
<td>12 (27)</td>
<td>1 (2)</td>
<td>4 (9)</td>
<td>8 (18)</td>
<td>13 (29)</td>
<td>8 (18)</td>
<td>10</td>
</tr>
<tr>
<td>Low score</td>
<td>4 (9)</td>
<td>7 (16)</td>
<td>8 (18)</td>
<td>2 (4)</td>
<td>7 (16)</td>
<td>7 (16)</td>
<td>5 (11)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Average score</td>
<td>27 (60)</td>
<td>32 (71)</td>
<td>14 (31)</td>
<td>30 (67)</td>
<td>32 (71)</td>
<td>24 (53)</td>
<td>16 (35)</td>
<td>24 (53)</td>
<td>50</td>
</tr>
<tr>
<td>High score</td>
<td>8 (18)</td>
<td>1 (2)</td>
<td>11 (24)</td>
<td>14 (31)</td>
<td>7 (16)</td>
<td>6 (13)</td>
<td>9 (20)</td>
<td>8 (18)</td>
<td>25</td>
</tr>
<tr>
<td>Total (N)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td>45 (100)</td>
<td></td>
</tr>
</tbody>
</table>

Note: 1 = Rhyme, 2 = Syllable segmentation, 3 = Compound words, 4 = Phoneme identification, 5 = Identifying homonym, 6 = Deletion of compound words, 7 = Combination of phonemes to form words.

*National percentage figures derived from the HLIJÖM-2 handbook (Simumardóttir, Einarsdóttir and Björnsdóttir 2002)

Associations between children’s FLP and IPA

This section describes the components from the children’s FLPs found to be associated with their IPA through the HLIJÖM-2 screening test results. A series of association tests were conducted to examine whether the variations in scores and performance ranks could be associated with different FLP variables.

One-way analysis of variance tests were executed to evaluate the differences in children’s scores based on their parents’ educational attainment. The assumption on the homogeneity of variance was not violated among mothers’ education as indicated by the difference between the education levels using Levene’s test, F(4, 39) = 1.68, p = .18. The ANOVA was statistically significant, F(4, 493) = 2.92, η² = 0.231. Post hoc analysis using Tukey HSD indicated that the mean scores for those whose mothers had master’s degree (M = 57.0, SD = 8.3) was significantly higher than those whose mothers completed lower secondary education (M = 37.6, SD = 9.5) and vocational/industrial training (M = 35.2, SD = 15.2). Similarly, the fathers’ education was found to be statistically significant using Welch ANOVA, F(5, 10) = 3.43, η² = 0.284. Post hoc analysis using Tukey HSD indicated that the mean scores for those whose fathers had a master’s degree (M = 56.0, SD = 9.0) was significantly higher than for fathers who had completed lower secondary education (M = 30.3, SD = 12.1). Thus, results suggested that children’s HLIJÖM-2 mean scores tended to be better when their parents had higher educational attainment as depicted in the means plot in Figure 6.

In addition to that, one-way ANOVA revealed that the children’s HLIJÖM-2 performance scores varied significantly according to the frequency of trips to the countries where their minority languages were spoken, F(2, 589) = 3.35, η² = 0.138 as the assumption of homogeneity of variance was satisfied, F(2, 42) = 1.08, p = .35. Post hoc analysis implied that the mean score of children who resided abroad (M = 46.5, SD = 12.5) was significantly higher than those who never or rarely went (M = 31.4, SD = 16.1). This meant that children essentially had better scores the more they went to the countries where their minority languages were predominant. Intriguingly, their mean scores did not significantly differ in relation with the frequency of trips to the library, F(2, 265) = 1.35, p = .27. Also by using the independent t-test, no significant difference in scores was found between those who attended mother tongue classes (M = 43.2, SD = 15) and those who did not (M = 39.5, SD = 13.9), t(45) = -.60, p = .55.
Furthermore, conducting a Kruskal-Wallis ANOVA test showed that, regardless of parents’ language patterns (ML@H, Maj@H, OPOL or mixed languages) with their children, the latter’s HLJÖM-2 performance ranks did not significantly vary, $\chi^2(3) = 3.13$, $p = .38$. However, by conducting Kruskal-Wallis ANOVA, the children’s HLJÖM-2 performance ranks showed to differ significantly across the number of Icelandic books, $\chi^2(3) = 11.2$ but not across the number of books in the minority languages, $\chi^2(3) = 5.61$, $p = .13$. This meant that the children’s phonological awareness benefitted from having Icelandic books at home, as it is significantly associated with better performance ranks in the screening test. It should be noted that varying language knowledge, exposure and usage in the family, as mentioned in this section, appeared to have a significant impact on the children’s IPA.

Discussion

The family language policy (FLP) and Icelandic phonological awareness (IPA) of five-year-old children exposed to more than one language were examined in this study by using the FLP questionnaire answered by parents and the children’s results on the HLJÖM-2 standardised test in their last year of preschool. The study was divided into three parts. Firstly, we sought to describe the linguistic diversity of children according to their FLPs. Our results implied that children’s FLPs were embodied in various ways. The children’s languages should, therefore, not only be derived from their parents’ origin and native languages, but should also be based on their family’s language characteristics, practices, and maintenance. Secondly, we examined their IPA, wherein the screening test results revealed that, although the majority of the children in the sample had average and high performance ranks, their overall performance ranks were proportionally not any better than the national standards given in the HLJÖM-2 handbook (Símonardóttir, Einarsdóttir, & Björnsdóttir, 2002). Lastly, we analysed whether FLP components were associated with the children’s IPA. Some of the components in the children’s FLP were found to be significantly associated with their IPA.

The children’s FLPs were first analysed. According to the findings of De Houwer (2007) and Schwartz (2010), parents raising bilingual children who have various languages in their repertoire commonly use different language input patterns with their children. Consequently, parents’ linguistic characteristics and language use with children were considered to be relevant aspects of the children’s FLPs. Our data showed that hardly any of the parents were monolingual, suggesting more linguistic diversity (Table 4.2). In terms of languages at home, few parents distinguished specific home language arrangements, but based on the frequency of languages they used at home, the patterns were similar to Slavkov’s (2016) results in that ML@H (minority language at home) and mixed languages were the most frequently used, followed by OPOL (one-parent-one-language) and Maj@H (Majority language at home). Although most parents claimed to use their native language with their children, some used their second language.

Parents unanimously acknowledged the importance of their children learning Icelandic, but not everyone agreed on the importance of learning the minority languages. Additionally, some parents reported difficulties and a lack of resources in raising their children to be proficient in both languages (see Table 4.4). These findings ostensibly suggest a need for support and resources for parents, as De Houwer (2013) and Kopeliovich (2013) found parents’ resources and knowledge on their children’s bilingual development to be integral to raising and accommodating their children’s linguistic needs in the family setting.

Most of the children in this study were born in Iceland which fits with the growing number of second generation immigrants (Statistics Iceland, 2016b). Few of them had resided abroad and most had bilingual parents. Our results revealed that, although all the children understood and spoke Icelandic, a third of them did not speak their minority language(s) (see tables 4.2 and 4.5) as reported by parents. Furthermore, considerably more children preferred to speak Icelandic with their family members, especially with siblings (see Fig. 4.3). Icelandic was also the predominant language they used when playing with other children outside preschool hours. This preference affirmed the findings in the studies by Slavkov (2016) and De Houwer (2007) where families are faced with the challenge of their children’s inclination towards the majority language. This could also be due to the strong language policy in society as well as in their preschools (Ministry of Education, Science and Culture, 2008).

In literacy activities, more mothers read to their children in Icelandic while more fathers read in the minority languages. A few of the parents took their children to libraries regularly. On average, the families had more than 20 books in both Icelandic and minority languages. Families also generally made frequent visits to the countries where their minority languages were spoken. In other linguistic activities, children seemed to be exposed...
to all their languages, although with varying frequency (see Figure 4.4). These findings presented efforts made by the families in investing time and money on their children’s linguistic upbringing similar to other studies (Lewis, Sandilos, Hammer, & Sawyer, 2015; Kopeliovich, 2013). The results additionally supported De Houwer’s (2009) results that there was an unequal proportion of languages exposed to and used by the children.

In essence, linguistically diverse children’s FLPs in this study appeared to be as diverse as implied in international studies. The salient characteristics depicted in the results validate the findings in other research that, despite the various efforts of parents in maintaining the minority languages, the children preferred to use and were more exposed to the majority language (Slavkov, 2016; Kopeliovich, 2013; De Houwer, 2007). Additionally, English appeared as an additional language to which children were regularly exposed, as implied in Albury’s (2014) study. Our results suggest that categories for children’s languages should be broader than their parents’ native language(s) as children’s families have various ways to choose, practise and manage languages within the family setting.

The second focus was on the participants’ IPA. We found no significant difference between the scores for girls and boys. However, the children’s overall mean score was 3.9 points lower than the national average (Símonardóttir, Einarsdóttir, & Björnsdóttir, 2002). Furthermore, the overall percentage of children’s HLJOM-2 performance ranks in our study revealed that 29% of the children ranked below average and 18% received a very poor ranking. These percentages were more than the national standard of 25% below average and 15% very poor (see Table 4.6). Additionally, only 18% of the children ranked above average, as opposed to the national standard of 25%. Our results revealed that the children did not have a better IPA based on their overall HLJOM-2 performance ranks and mean scores. This was an alarming indication that linguistically diverse children were less successful in developing a strong grasp of their IPA at the preschool level, contrary to findings abroad (Hammer, et al., 2014; Parra, Hoff, & Core, 2011; Kim, 2009). The results occurred despite the children being immersed in Icelandic in their preschools and in a society with a strong Icelandic language policy (Ministry of Education, Science and Culture, 2014b). More importantly, this was in spite of parents’ unanimous stance on the importance of Icelandic for their children, along with their claim that their children spoke and understood Icelandic with a growing preference to use it. As IPA is known to strongly predict Icelandic students’ further literacy skills (Björnsdóttir, Símonardóttir, & Einarsdóttir, 2003) and because the phonological awareness of bilingual children transfers between their languages (Hammer, et al., 2014), it is crucial for these children to develop awareness about how the sounds in both their languages are structured in preschools and at home.

The third focus was on associations between the children’s IPA and FLPs. Only some components were significantly associated with the children’s HLJOM-2 scores. Generally, highly educated parents accounted for higher scores. Moreover, the more frequent they travelled to the countries where their minority languages were spoken, as well as the more Icelandic books they had, the better their performance on the test. This substantiated the findings that linguistic exposure and resources significantly associate with children’s literacy development (Kopeliovich, 2013; Parra, Hoff, & Core, 2011). Interestingly, FLP components that did significantly not associate with the HLJOM-2 results were home language patterns (ML@H, OPOL, Mixed languages or Maj@H), frequency of trips to the library or attending minority language classes. The aforementioned findings complied with the studies that have shown that there are various kinds of resources, exposure, and usage of the languages in the child’s family setting and that only some had a significant impact on children’s language outcomes (Slavkov, 2016; De Houwer, 2009).

**Limitations and Implications**

Several limitations in this study constricted the analyses. The main constraint was that testing for associations between FLP and IPA components proved to be more difficult as the sample size was small. Most significance tests failed the assumptions on minimum cases within grouped units, and post hoc pairwise comparisons from Kruskal-Wallis ANOVA were not feasible. Trend analysis could have been ideal had the sample size been larger. The response rate from the parents of participating preschools was 65%, but the response rate from sampled preschools was only 19%. Another constraint was that data on children’s FLPs exclusively relied on parental responses to the questionnaire. Data should be supplemented by other, in-depth research methods that take into account all family members as active agents in their FLP (Schwartz & Verschik, 2013). Furthermore, other factors could have affected children’s results in HLJOM-2. The screening test being conducted
in Icelandic would require the children to have developed enough vocabulary and communication skills in the language to understand the test. For this reason, preschools refrain from conducting the screening tests on some linguistically diverse children (Einarsdóttir, pers. comm.), consequently making the sample size even smaller. Phonological awareness tests could also be conducted in minority languages to compare results in both languages. This would give insight into whether language-related factors can influence children’s IPA based on the linguistic distance of the minority language’s phonology to that of Icelandic (Hammer, et al., 2014; Bialystok, 2003).

More should be done to support parents in their quest for raising linguistically diverse children, especially in establishing adequate FLPs as an influential aspect of helping to improve children’s emergent and subsequent literacy skills. Our findings indicated inclinations and significant associations between the children’s FLP and their IPA. These findings imply the parents’ important responsibility in their children’s emergent literacy for both the minority and majority languages as indicated in the National Curriculum Guide (Ministry of Education, Science and Culture, 2014a). Thus, it is necessary for preschool professionals to be well-informed on the subject of FLPs and IPA of linguistically diverse children to provide parents with the appropriate guidance and resources. This small study can conceivably ignite further research and intervention studies on linguistically diverse children’s FLPs in relation to their emergent and subsequent Icelandic literacy skills that may prove to be beneficial for families and schools.

**Reference List**


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5 Other results

Most of the highly relevant results were discussed in the book chapter. However, there were other results excluded in it due to limited space. The additional results on the participants’ IPAs and other associations between their FLPs and IPAs are considered in this chapter.

Although the sample in this study generally performed well when it came to phoneme identification, more than 25% scored lower in rhymes and even more children ranked lower in syllable segmentation, these being the three phonological tasks in the HLJÓM-2 composite that strongly correlate with Icelandic children’s reading skills in 1st grade of compulsory schooling (Björnsdóttir, Simonardóttir, & Einarsdóttir, 2003). Moreover, 55% of the children scored average or high on compound words and 87% on homonym identification, these being the two tasks that significantly correlate with the children’s reading skills in the 2nd grade. These findings implied that linguistically diverse children’s grasp on different phonological tasks in Icelandic varied considerably.

More one-way ANOVA tests were executed in the analysis. However, statistical significance testing could not be performed due to failed test assumptions on account of the small sample size. Hence, most tendencies of association could only be visualized through the use of means plots shown in this chapter but were excluded in the previous one.

![Diagram](image)

**Figure 5.1 Children’s HLJÓM-2 scores according to their parents’ language attitudes**

When it came to associating the children’s HLJÓM-2 scores with parents’ attitudes towards raising their children to be proficient in both languages, Figure 5.1 depicted a
tendency for a lower mean when parents disagreed that their child could be an active bilingual and when parents were undecided about the importance of learning the minority language. Otherwise, the variations in their attitudes seemed to have no effect on their child’s IPA outcome. In addition, there was a tendency for children to have better mean scores as their parents used more types of resources on bilingualism, as shown in Figure 5.2.

Figure 5.2 Children’s HLJÓM-2 scores according to the number of bilingual resources

The means plot for their HLJÓM-2 scores portrayed an inclination towards the languages that parents knew, as shown in Figure 5.3. In this sample, parents were grouped by their knowledge of Icelandic, English or both. Incidentally, all the Icelandic native speakers spoke English and belonged to the third group. The parents who belonged to the fourth group were those who had Icelandic as a second language and did not speak English. Children had

Figure 5.3 Children’s HLJÓM-2 scores according to their parents’ languages
higher mean scores when their parents spoke English and Icelandic as their native and/or second languages or if they knew Icelandic as a native and/or second language, especially among fathers.

In Figure 5.4, the mean scores appeared to be rather similar regardless of whether the children preferred to use the majority or minority language with family members. However, the mean score for those who chose to speak both languages equally with family members were somewhat lower, especially with the father.

![Figure 5.4 Children’s HLIOM-2 scores according to their language use with family members](image)

Although the scores were significantly associated with the number of Icelandic books as mentioned in the book chapter, the means plots for the number of minority language books also showed a considerably similar tendency of association as shown in Figure 5.5.

![Figure 5.5 Children's HLIÖM-2 scores according to the number of books at home](image)
The mean score for children appeared to be highest when their parents read to them, mainly in Icelandic. In the same manner, when mothers read equally in Icelandic and minority languages, the mean score tended to be higher than if they read mostly in the minority languages as depicted in figure 5.6.

![Figure 5. 6 Children’s HLJÓM-2 scores according to their parents' language when reading for them](image)

Figure 5. 6 Children’s HLJÓM-2 scores according to their parents' language when reading for them

The children’s mean scores according to their most often used languages on different activities were illustrated in Figure 14. Watching online videos and playing computer games in Icelandic, as well as watching movies in both Icelandic and minority language seemed to associate more with higher mean scores on HLJÓM-2 than the other categories. A trend was also portrayed in the means plot wherein children who frequently used English as an additional language had the lowest mean scores when it came to computer games and music. Interestingly, the mean scores were lowest for those who never watched television. This meant that language exposure from the aforementioned activities could have an effect on the children’s IPA.

![Figure 5. 7 Children's HLJÓM-2 scores according to their weekly activities](image)

Figure 5. 7 Children's HLJÓM-2 scores according to their weekly activities
These results implied that the children whose parents had a positive attitude and possessed resources on bilingualism tended to have higher scores. Higher scores could also be associated with parents having Icelandic and English as a native or second language. The children who used both languages equally when addressing family members scored lower than children who used either language. Other less interactive linguistic activities also depicted some impact on the children’s scores. These trends complied with previous studies that showed that the amount of exposure, as well as usage of the languages, could have an impact on children’s language outcomes (Slavkov, 2016; Parra, Hoff, & Core, 2011; De Houwer, 2007).
6 Conclusion and implications

This study provided a new contribution to the research on emergent literacy skills of children in Iceland among linguistically diverse children as it addressed various linguistic upbringings in a wider context. Our findings suggested that it might be too confined to categorise children’s languages based solely on their parents’ native language on the grounds that children tended to have access to varying FLPs, or how the languages were chosen, practised and managed within their family setting.

Children’s scores on IPA tasks showed that more of the participants performed lower than in the national standard, contrary to what foreign studies suggested. Even when foreign studies found that bilingual children had an advantage in developing a strong phonological awareness in both languages and despite parental reports in this study that their children could understand and speak Icelandic, our findings revealed that more children still failed to develop a strong grasp of IPA. This is an alarming indication that linguistically diverse preschool children, even when fully immersed in Icelandic preschools and raised in a society with a strong Icelandic language policy, still very much lack adequate language experience and practice to foster their IPA at the preschool level. As IPA is known to strongly predict Icelandic students’ further literacy skills in Icelandic and because the phonological awareness of bilingual children transfers between their languages, it is crucial for these children to grasp how the sounds in all their languages are structured during their preschool years, both in school and at home.

Evidently, more measures should be included to support parents in their quest for raising linguistically diverse children, especially in establishing an adequate FLP as an important aspect to helping improve children’s emergent and subsequent literacy skills. Our findings indicated inclinations and significant associations between the children’s FLP and their IPA as mentioned in the discussion. These findings imply parents’ important responsibility in their children’s emergent literacy for both the minority and majority languages as indicated in the National Curriculum Guide for compulsory schools (Ministry of Education, Science and Culture, 2014a). However, this is not mentioned in the Guide for Preschools (Ministry of Education, Science and Culture, 2011). Since the parents in this study reported their primary source for advice on bilingualism to be preschool teachers, it is necessary for these professionals to be well-informed on the subject of FLP and IPA of linguistically diverse children to provide parents appropriate guidance and resources.

The school communities should be equipped with this information, specifically on the importance of and how to interpret the HLIÓM-2 results of children who have more than
one language. Although there were several limitations on this study, mainly on account of the small sample size, this small study can conceivably pave a way to further research, policies and programs for linguistically diverse children’s FLPs in relation to their Icelandic emergent and subsequent literacy skills. This is to specifically address the literacy gap between students who have Icelandic as a sole language and those who have diverse linguistic upbringings in the country.
7 References


Goswami, U. (2006). Phonological awareness and literacy. *Encyclopedia of language and linguistics*, 9, 489-497. This should be formatted as a chapter in an encyclopedia. Since I don't have the original, I don't know what information to include.


