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Ragnar Arntzen \& Gisela Håkansson

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# Multilingualism among children, age 7-12, typological representation and language use pattern in a medium-sized town in Norway 

Ragnar Arntzen (1) ${ }^{\text {a }}$ and Gisela Håkansson (1) ${ }^{\text {b,c }}$<br>${ }^{\text {a }}$ Department of Languages, Literature and Culture, Østfold University College, Halden, Norway; ${ }^{\text {b }}$ Centre for Languages and Literature, Lund University, Lund, Sweden; ${ }^{\text {º Department of Swedish, Linnaeus University, }}$ Växjö, Sweden


#### Abstract

This article examines multilingual language use in two groups of children, one group at a state school, and one at a private IB school. The IB school has earlier been assumed to reflect an 'elite' multilingualism. Three research questions are posed: to what extent is the children's language use multilingual, what are their typological profiles, and are there any differences between the two groups in the language use patterns. The agency of the speaker is captured by self-reporting questionnaires. We use a method of circles in which the participant fills in the names and domains of the languages in use. The answers are registered according to three main dimensions: family, social interaction and media use. The study is exploratory and descriptive, and the results demonstrate that a large majority of the children at both schools used more than one language. The study is innovative in combining a sociolinguistic approach with language typology. Our results shed light on children's dynamic and flexible language use, using languages from all of the world's language families. We found similarities in the multilingualism of the two groups, and there was little to indicate that the IB pupils could be characterised as having an 'elite' multilingualism.


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Multilingual use; language typology; children; 'elite'; age

## Introduction

In this study, we examine children's language use in two different primary schools: an ordinary, state school and a IB school. In Norway, Norwegian and Sami are the official languages, there are some official minority languages and some school languages. Apart from these, there are about 200 immigrant languages. All children start learning English as an additional language at the age of six, and most children have met English through media, music, songs and other occasions long before that (Håkansson, 2019). In our study, we wanted to include every pupil, across the divides of minority and majority, migrant and non-migrant, first, second and foreign language, and

[^0]investigate what this young multilingualism looks like, and how children from two primary schools in a randomly selected medium-sized town of Norway make use of their language resources. We have chosen one ordinary primary state school with Norwegian as the language of instruction, and the other is an international school (International Baccalaureate, IB) with English as language of instruction, both in the same town.

The pupils at the IB school come from all over the town and the neighbouring municipalities; while the state school pupils belong to a specific downtown district where the inhabitants have some medium low scores on a living conditions survey, SES (like income, social assistance, number of low-educated, single parents, unemployed) (Municipal living conditions survey, 2018). We have not collected data on the parents' socio-economic status; but as the parents pay 2700 Norwegian kroner (about 250 Euros) in monthly tuition fees at the IB school, it is not unreasonable to think that they come from higher SES backgrounds than the average inhabitants of our school district. An earlier study (Skahjem, 2010) has shown that parents' income and level of education affect the likelihood of their children attending private school.

As far as we know there are no earlier studies comparing multilingualism in these two settings. Nørreby (2020) describes elite multilingualism in a private Danish-French school in Copenhagen, concluding that the multilingualism in these children is valued higher than multilingualism among children in the ordinary Danish public school. However, he only presents data from the private school, and the conclusion that their multilingualism is valued higher is inferred from discussions in the media. There is a recent interest for the so-called 'elite' multilingualism. In 2019, the Journal of Multilingual and Multicultural Development published a special issue on this theme, and defined elite bilingualism as follows: 'a phenomenon that brings social and/or material capital, a sense of belonging, prestige, excellence, privilege, and access through the use of specific linguistic resources for certain social groups and individuals' (Barakos \& Selleck, 2019, p. 362). In the present study, we investigate whether there are traces that might indicate an 'elite character' in the language use of the IB pupils. There has been no research comparing language use in these two groups. The focus in this paper is on the multilingual use aspect and to what degree children report using different languages in their everyday life.

Contemporary multilingualism has undergone important changes in recent decades due to increasing globalization, and two trends in language use have been pointed out: the spread of English as an international language (partly as elite bilingualism) and the opposite trend, a 'remarkable diversification of the languages in use' (Aronin \& Singleton, 2008, p. 3). People hold multiple memberships in multilingual communities and keep in contact with local and global language groups in an online context (Canagarajah, 2007; Curdt-Christiansen, 2016; Curdt-Christiansen \& Lanza, 2018; Lanza, 2020; Lanza \& Lexander, 2019; Lexander \& Androutsopoulos, 2019; Palviainen, 2020). A study of the languages used on Twitter 2013 revealed that more than half ( $66 \%$ ) of the posts were written in another language than English (Hou et al., 2020). The internet and social media enable everyone to have friends and to work, play and communicate across distances, borders and continents. The distinction between home and work/school is blurred (Aronin \& Singleton, 2008; Fishman, 1998). Rather than promoting monolingualism in English, the internet has proven to be a useful tool in language revitalisation and upholding multilingualism (e.g. Domeij et al., 2019). Despite these changes in multilingual use in society, on
a micro and macro level, 'The debate about multilingualism in schools is indeed still widely framed within a monolingual (...) system' (Caliendo et al., 2020, p. 2).

Bubikova-Moan (2017) claims, based on a critical reading of recent Norwegian official policy reports concerning children's linguistic diversity, that there is an ambivalence regarding the valuation of children's linguistic resources, expressing both an appreciation of multilingualism and an instrumental attitude towards minority speaking children's L1s. The Norwegian Education Act § $2-8$ states that pupils from language minorities are, 'if necessary', entitled to mother tongue instruction and/or bilingual subject teaching until they have sufficient skills in Norwegian to participate in ordinary teaching with some L2 support (Norwegian Education Act, 1998). Thus, these minority languages are not awarded an autonomous value, but are only regarded as a provisional instrument for a short transition period. Several studies have also demonstrated shortcomings in teacher education (King \& Butler, 2015). For instance, pre-service teachers perceive themselves as monolingual Norwegian speakers (even if they have studied English at least 13 years in school) in a monolingual school system and are reluctant to deal with the multilingualism that exists in the classroom (Dyrnes et al., 2015; Iversen, 2020; Skrefsrud \& Østberg, 2015). Two large-scale projects in Norway (Svendsen et al., 2015 and Ipsos, 2015) investigated language diversity and multilingual use among schoolchildren. The results of both projects showed a large multilingualism among the pupils.

Summarising, there are 'very limited' quantitative studies on multilingual language use (Lasagabaster \& Huguet, 2007; Svendsen, 2021) and a lack of studies including 'the entire linguistic repertoire of a multi-ethnic community of practice' (Svendsen, 2010, p. 13). In studies on 'elite' bilingualism, there is no data on the children's entire linguistic repertoire. Most Norwegian studies on multilingual children and youth, examine this issue in migrant settings, and in groups with specific L1s (Aarsæther, 2009; Fulland, 2016; Karlsen \& Lykkenborg, 2012; Kulbrandstad, 1997; Lanza \& Svendsen, 2007; Rydland et al., 2013). We do not have the number of pupils' languages in Norwegian schools and know little about the language vitality among school children (Svendsen, 2021). We know however that children and youth with migrant background make up a substantial part of the population, about $18.9 \%$ in 2022 (SSB, 2022). The changes we have pointed out in this Introduction make it even more necessary to examine this new multilingual situation: Increasing globalisation, technological developments in digitalisation, internet and new media are creating new forms of human interaction and contact across borders and continents, opening new opportunities for language contact and multilingual use and calling for attention from sociolinguistic and multilingual researchers to explore new approaches to language-use studies. We hope this study can contribute to these endeavours.

## Statement of the problem

Many Norwegian studies compare majority language to minority language (e.g. Fulland, 2016; Ipsos, 2015; Karlsen \& Lykkenborg, 2012; Rydenvald, 2015), and there has been a call for more studies on children's multilingual use (Svendsen, 2018). In the current study, our aim is to account for all the languages used by the pupils from two different school systems, without consideration of whether the languages are minority or majority languages. Following Aronin (2019), we ask about language use from the point of view
of active use - what participants do with their languages, not which languages they have. In this wider perspective, we will also give an extensive documentation of languages in terms of typology and reported language use in family, among friends and in media use.

## Research questions

- What languages do the participants report using in family, among friends and when using digital media?
- What are the typological profiles of the children's reported linguistic resources?
- Are there any differences between the pupils' language use patterns in the two schools and how can these differences possibly be explained?


## Research methodology

The study's aim was to examine language use among two groups of primary school children (7-12 years old) in the same town in Norway - one state school with Norwegian as language of instruction ( $n=146$ ) and one IB school with English as language of instruction ( $n=118$ ). All pupils at the schools were invited to participate. Both types of schools teach the other language as a subject from grade 1 (IB: five hours a week of Norwegian in grades 1-3; four hours in grades 4-7; state school: one hour of English in grades 1-3; two hours in grades 4-7). Additionally, mother tongue instruction is offered for all children speaking other languages than Norwegian at home in the state school if they do not have the necessary skills in Norwegian.

To identify which languages were used, we applied the method of French and de Courcy (2016) - a 'language map' with circles in which participants were asked to write the languages they used and also in which domains. The data collection was done by the pupils' teachers, according to our instructions. We wanted to include all pupils at school, regardless of ethnicity and migrant background, minority/majority speaking, L1s. Our main purpose was to find out whatmultilingualism looked like in a small, typical delimited area from an everyday, child perspective. In order to catch the child perspective, we had to use a simple design, handy and useful for the teachers, so that the children could respond in a familiar atmosphere and be assisted by a teacher who knew to communicate properly with the different age groups (Appendix 1). We were careful not to give any predefined categories when collecting data but rather to take the participant's perspective. When asking about languages, we gave the participants freedom to name the languages. Before the teachers collected the data, we asked them to have an informal, exploratory conversation with the pupils on their experiences with language use with friends, in family with parents and siblings, and when using media.

When the children had filled in the language maps, these were sent us by the teachers. The teachers reported that most of the children had been eager and engaged in the introductory conversations and when they filled in the forms. The work in the lower grades had predominantly been oral, and several children needed assistance to fill in the maps. We had no problems to read and interpret the children's answers and registered these (in excel) for each participant in the two schools. This constitutes the raw data for the figures and data we present in Tables 1-6.

Before the data collection, the participating children and their parents signed a consent form, about the purpose of the project, what the participation involved, that it was voluntary to participate and how we would store and use the data. The use of retrospective questionnaires in language surveying has been criticised; some are sceptical of self-reported data as unreliable (people may forget which language they used), or they claim that informants may idealise their mother tongue and over-report its use (Holmes, 1997). Critics suggest that surveys of language use should rely more on ethnographic methods (Milroy et al., 1991). Observation might have given a more objective picture of the informants' language use, but this method is extremely time-consuming, and ethical issues can easily arise during observation in families and in the participants' daily life among friends. By letting the teachers collect data together with the pupils, the teachers gained experience with a simple method of putting multilingualism on the agenda, and this might also inspire both teachers and pupils to be more aware of multilingualism as a resource.

## Results

In Table 1, we present the number of languages used as reported by the two groups of participants.

In Table 1, we can see a great diversity of languages among the children. The reported language use among the participants in the two groups seems approximately similar concerning the average number of languages in use, 2.6 and 2.8 , respectively.

## Number of languages per participant

In Table 2, we present the number of languages reported using in family, among friends and with media as a whole.

As Table 2 shows, there was a wide variety in the number of reported languages in use among both groups of participants. More than $96 \%$ of the participants reported using two or more languages in their daily lives, and only very few pupils at the state school reported using only one language, and none from the IB school. At the other end of the scale, several children reported using up to four to six languages daily. Both groups of children had pretty similar language-use profiles: About half the children reported using two languages a day, about a third reported three, and another $12 \%-22 \%$ reported four or more languages daily.

## Language use in family, in contact with friends and when using media

Table 3 shows the total number of languages in use in family, with friends and with media (internet, social media, TV, etc.).

Table 1. Participants and language use.

| Institution | Age | Societal | Participants | Tot. No. of reported <br> langs. <br> 378 | Diff. lang. | Avg. No. of langs. per |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| child |  |  |  |  |  |  |

Table 2. Total number of languages in use in the three domains.

| No. of languages | State school (\%) | IB school (\%) |
| :--- | :---: | :---: |
| 1 | 5 | 0 |
| 2 | 45 | 47 |
| 3 | 38 | 31 |
| 4 | 10 | 14 |
| 5 | 1 | 8 |
| 6 | 1 | 0 |

Table 3 shows that the two groups of children reported similar patterns of language use in the family domain. A majority of the children ( $50 \%$ and $59 \%$ ) reported using two or more languages in the family domain, and about $13 \%-23 \%$ of the participants reported using three or more languages here.

Concerning language use with friends, Table 3 shows different language-use patterns for the two groups: a large majority of the IB pupils (69\%) had a multilingual social life (two or more languages), while this was the case for about one-third of the state school pupils (34\%).

In languages used with the Internet and media, most pupils (ab. 80\%-90\%) reported using two or more languages. The frequency of using three or more languages on the internet and with media was higher for IB (29\%) than for the state pupils (10\%). It seems that both groups of children used more of their linguistic resources with media than in contact with their friends, while IB pupils to a larger extent than state school children used their multilingual resources in contact with friends.

## What languages were used?

Our participants reported using a wide spectrum of the world's languages. Ten of the 12 language families presented in Comrie (2011) can be found among our Norwegian participants (Turkic and Austronesian are not present). Table 4 below demonstrates the different language families and the languages used.

The participants reported 15 shared languages, 20 languages only for the State school children and 11 languages only for the IB children. The Indo-European language family was the most frequently reported. Twenty-six languages from seven branches of the Indo-European language family were used. Along with Germanic languages used in multilingual families in Norway, other Indo-European languages were also used, for example from the Romance branch, the Slavic branch, the Baltic branch, the Albanian branch, the Iranian branch and the Indo-Aryan branch.

Outside the Indo-European group, languages were reported from the Dravidian language family and the Finno-Ugric family. From the Afro-Asiatic language family,

Table 3. Number of languages used in family, with media, and with friends (\%).

| No. of languages | Family | Friends |  |  |  | Media |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
|  | State | IB | State | IB | State | IB |
| 1 | 50 | 41 | 66 | 31 | 21 | 12 |
| 2 | 37 | 36 | 27 | 51 | 69 | 58 |
| 3 | 12 | 18 | 7 | 13 | 8 | 25 |
| 4 | 1 | 5 | 0 | 5 | 2 | 4 |
| 5 or more | 0 | 0 | 1 | 0 | 0 | 1 |

Table 4. Languages used by the participants.

| Language family | Branch | Languages used by our participants |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Indo-European | Germanic | Both schools <br> Danish, English, German, Norwegian, Swedish | State school | IB Afrikaans |
|  | Romance | Catalan, French, Italian, Spanish |  | Romanian |
|  | Slavic | Bosnian, Russian, Polish | Czech | Bulgarian |
|  | Baltic |  | Lithuanian | Latvian |
|  | Albanian |  | Kosovo-Albanian |  |
|  | Iranian |  | Dari, Kurdish, Persian, Farsi |  |
|  | Indo-Aryan | Hindi | Nepali | Urdu |
| Dravidian |  |  |  | Tamil, Telugu |
| Finno-Ugrian |  | Sami | Finnish |  |
| Afro-Asiatic | Semitic | Arabic | Amharic, Assyrian, Syrian, Tigrinya |  |
|  | Berber |  | Berber |  |
|  | Cushitic |  | Somali |  |
| Niger-Kongo | BenueKongo |  | Swahili |  |
| Korean |  |  |  | Korean |
| Japanese |  |  | Japanese |  |
| Sino-Tibetan |  |  |  | Chinese |
| Tai-Kadal |  |  | Thai |  |
| Austro-Asiatic |  |  |  | Vietnamese |
| Not identified |  |  | Ethiopian, Irani, Marriukan | Bergen |

three branches were reported: the Semitic branch, the Berber branch and the Cushitic branch. Of the Niger-Kongo language family, one language of the Benue-Kongo branch was reported. The Japanese and Korean language families consist of one language each, and both Japanese and Korean were present. The Sino-Tibetan language family was represented by Chinese. Finally, the language families of Tai-Kadal and AustroAsiatic were reported. The only missing families were the Turkic and the Austronesian families.

## The use of Norwegian, English and other languages

English and Norwegian hold a special position among the languages in use. Both languages are used in school. In total, 45 different languages were reported. They were used in family, among friends and in media. All the participants' languages were represented in the media, but none was used only in media. Some participants reported using more languages in their media use than in the family.

Table 5 shows to what extent the participants used Norwegian, English and other languages in the family, among friends and when using media.

Norwegian played a dominant role in language use for most participants in all four domains. English competed with Norwegian to be the most dominant language in media use for both groups, and pretty common in the family domain. Other languages than Norwegian and English were very common in the family domain, especially for the state school pupils ( $41 \%$ ) but also for the IBs (35\%). We also notice that the IB pupils to a greater extent than the state school pupils reported other languages in contact with media ( $35 \%$ versus $14 \%$ ). To illustrate the diversity of languages used by

Table 5. Languages used in family, among friends and with media.

|  |  | Norwegian (\%) | English (\%) | Others (\%) |
| :--- | :--- | :---: | :---: | :---: |
| In family | State school | 92 | 25 | 41 |
| Among friends | IB school | 94 | 43 | 35 |
| With media (TV, computer, etc.) | State school | IB school | 99 | 19 |
|  | State school | 94 | 54 | 23 |
|  | IB school | 91 | 82 | 14 |
|  |  | 86 | 94 | 35 |

individual children, we extracted data from the language maps and selected four children, two from each school, to represent multilingual language use.

Examples of language use by four children:
Child A. Two Germanic languages (Norwegian and Swedish), one Semitic (Arabic), and one Indo-Aryan (Urdu) were used in the family, Urdu with the father, and Arabic with the grandmother. Only Norwegian and English were used in media, while this child used Norwegian, Swedish, English, and Arabic among friends (IB, grade 4).

Child B. Three Germanic languages (Norwegian, English, and German) and one Austro-Asiatic language (Vietnamese) were used in family and with friends. Vietnamese was used with the mother, English with the father, and German with the grandparents and aunts. Only Norwegian and English were used in contact with media (IB, grade 4).

Child C. Three Germanic languages (Norwegian, English and Swedish) were used at home, one Germanic (Danish) and one Romance language (French) with relatives, two Germanic (Norwegian, English) and two Romance (French, Spanish) with media (SS, grade 4).

Child D. Two Germanic languages (Norwegian and English), one Semitic (Arabic), and one Cushitic (Somali) were used at home, two Germanic (Norwegian and English) with friends and media (SS, grade 5).

## Language use in families

Descriptiven quantitative analysis revealed that, in total, 43 participants reported using at least three languages in the home; almost all used Norwegian in the home. Only one did not use Norwegian. This child used Danish, English, Spanish and Swedish. Four participants used Norwegian, English and German, three participants used Norwegian, English and Somali, and three participants used Norwegian, English and Arabic. Table 6 depicts the language combinations by participants with more than three languages at home.

Most participants (41) with three languages or more in the home showed a unique profile, that is, except for their use of English and Norwegian. Their combination of other languages was not used by anybody else. Only eight contexts were found in which participants shared the same language combinations. Within the same family, we found examples of languages from three typologically different languages spoken. In Appendix 2, figures from individual languages and individual participants are given.

## Discussion and concluding remarks

We will now discuss our findings according to the three research questions.

Table 6. Participants using three or more languages in the family.

| Languages used in the home | Norwegian | English | No. participants with language combination | Schools |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Tamil, Telugu | Yes | Yes | 2 | IB (2) |
| Arabic, Somali | Yes | Yes | 1 | SS |
| Catalan, Spanish | Yes | Yes | 1 | IB |
| German, Vietnamese | Yes | Yes | 1 | IB |
| Arabic, Swedish, Urdu | Yes | No | 1 | IB |
| Danish, Spanish, Swedish | No | Yes | 1 | IB |
| Three languages |  |  |  |  |
| Swedish | Yes | Yes | 5 | IB (3), SS (2) |
| German | Yes | Yes | 4 | IB (2), SS (2) |
| Somali | Yes | Yes | 3 | SS (3) |
| Arabic | Yes | Yes | 3 | IB (2), SS (1) |
| Swedish | Yes | Yes | 3 | IB (3) |
| Danish | Yes | Yes | 3 | IB (2), SS (1) |
| Sami | Yes | Yes | 2 | IB |
| Spanish | Yes | Yes | 2 | IB |
| Berber | Yes | Yes | 1 | SS |
| Bosnian | Yes | Yes | 1 | IB |
| Czech | Yes | Yes | 1 | SS |
| Dari | Yes | Yes | 1 | SS |
| Farsi | Yes | Yes | 1 | SS |
| Finnish | Yes | Yes | 1 | SS |
| French | Yes | Yes | 1 | IB |
| Italian | Yes | Yes | 1 | IB |
| Japanese | Yes | Yes | 1 | SS |
| Korean | Yes | Yes | 1 | IB |
| Polish | Yes | Yes | 1 | IB |
| Urdu | Yes | Yes | 1 | IB |
| Assyrian, Syrian | Yes | No | 1 | SS |
| Danish, French | Yes | No | 1 | IB |
| Danish, Spanish | Yes | No | 1 | IB |
| Kurdish, Russian | Yes | No | 1 | SS |
| Polish, Russian | Yes | No | 1 | SS |

RQ1: What languages did the participants report using in family, among friends and when using digital media?

From the schools' curricula, we know that all our participants, learn an additional language to the language of instruction, either English or Norwegian, from grade 1. So, it is no big news that our participants reported being multilingual, but our results show a far more nuanced, rich and diverse picture of children's multilingual life in today's society. Learning a language is one thing, using a language in real communication is something completely different. Our 264 participants, from two randomly chosen schools in a medium-sized town in Norway, reported using 714 languages in communication in their daily life, which indicates that the average pupil lives a trilingual life (Table 1). All IB pupils and nearly all state school pupils (95\%) used two or more languages in their daily lives. We know no studies to compare these figures with. Ipsos (2015) reported how many languages the children and youth used, but they did not report name of languages, only which parts of the world the languages belong to. In the town of our participants, $14 \%$ of the inhabitants have migrant background (from 135 different countries) (SSB, 2014/23).

Concerning language use in different domains, we found both similarities and differences among the two participating groups (Table 3). An overwhelming majority reported two or more languages when using media. This is consistent with several recently
published studies describing how media increases the opportunities for using many languages (Domeij et al., 2019; Lexander \& Androutsopoulos, 2019; Palviainen, 2020; Palviainen \& Kedra, 2020). In the family domain, children mostly used two or more languages, but not as frequent as in contact with media.

English played a dominant role when both groups of children were in contact with media, while other languages than Norwegian and English played a more important role in the family domain (Table 5). This may be related to the fact that other languages represent mother tongues for children with migrant background, and the family is the most important domain for use of minority languages (Pauwels, 2016). In total, the participating children reported 40 different languages; 35 of these languages were used in the family, 25 among friends and 24 in contact with media (cf. Appendix 2). One hundred twenty participants reported other languages than Norwegian and English in the family domain, while this was the case for $116(60+56)$ participants with friends and media (cf. Appendix 2).

In all reported domains, English played a more dominant role for the IB pupils than the state school pupils (Table 5), and this was expected as these children had English as their language of instruction in school. The difference between the groups was not as large in the media domain as in the other domains, as also the state school pupils to a very high degree (more than 80\%) used English in contact with media. This was not surprising, as most games and popular films for children are in English. The widespread use of English in Norway has been observed in other studies (lpsos, 2015; Medietilsynet, 2020), and it is interesting to see that Ipsos (2015) had nearly the same share of pupils (grade 5 and 6) using other languages than Norwegian and English in the domains of home ( $35 \%$ our two groups 41 and $35 \%$ ) and friends ( $16 \%$, our groups 23 and $22 \%$ ).

In many cultures, it is common to use a multitude of languages daily (Mufwene \& Vigouroux, 2008). From a Norwegian perspective, it may come as a surprise that children use more than one language at home and that they continue to use previously acquired languages when they learn a new language. It is often assumed that multilingual speakers, especially children, leave the minority language behind when they learn a majority language at school (Bubikova-Moan, 2017; Iversen, 2020; Lanza \& Svendsen, 2007). Another aspect is that communication in the family does not only involve parents and children in the same country, but also grandparents and other relatives from other continents, communicating by internet connections (Palviainen, 2020; Palviainen \& Kedra, 2020).

RQ2: What are the typological profiles of the children's reported linguistic resources, on a group level and on an individual level?

Another finding in this study is the breadth of typologically different languages (Table 4). Ten of the 12 major language families defined by Comrie (2011) are represented among our participants' languages. It is hard to see any pattern in the distribution of different languages belonging to different language families and branches for the two children groups. For both groups, the Indo-European languages were the most frequently reported, heavily dominated by the Germanic branch (reported 1005 times, cf. Appendix 2). Languages from the Afro-Asiatic (Semitic and others), Roman and Slavic branches, on the next places, were reported between 30 and 50 times. Several branches, such as NigerKongo, Sino-Tibetan, Austro-Asiatic were only reported by one or two children, and most
children with more languages showed a unique profile. There is scarcely any previous research in this area, as far as we know.

Languages from several different language families could be used in the same home. Sometimes these languages are very different. We know that teachers often ask pupils about their 'home language' structure in order to compare it to Norwegian structures. If there is more than one home language, this is a difficult question. If there are three home languages from three different language families, this is an even harder question to answer. If Child A (see above) is asked the question about how to express negation in the 'home language', will s/he choose Arabic and give examples showing differences between perfect and imperfect aspect, or Urdu and exemplify with the preverbal particle? Will Child B give examples of the Vietnamese preverbal particle or show the German difference between main and subordinate clause? Will Child D illustrate negation with Arabic, where there is a difference in negation depending of aspect, or Somali where the verb morphology changes after negation? (We assume here that the basics of the languages spoken by Child C - Danish, English, Swedish, French and Spanish - are known by the teachers).

The languages in our data range from analytic languages (e.g. Chinese, Vietnamese) to agglutinative languages (e.g. Finnish, Somali) and synthetic languages (e.g. Arabic, Russian). Most types of negations that are discussed in the literature (e.g. Miestamo, 2005) occur among our participants. Some have morphological negation with a prefix (Farsi), others have particles placed in front of the verb (Arabic, Somali, Spanish, Vietnamese) or after the verb (German, Norwegian). Some use negative auxiliary verbs (Finnish). Among the languages with particles, we find some with asymmetric negation in which the verb is used in a different form after negation (Albanian, Somali). This overview gives an indication of the rich linguistic variation in today's Norway, represented by two small cohorts of children in the same town.

RQ3: Are there any differences between the pupils' language use patterns in the two schools, and how can these differences possibly be explained?

When comparing the language resources and multilingual use in the two groups, as we have done in RQ1 and RQ2, we found more similarities than differences. The multilingual profile of the two groups is similar: In both groups, there is a wide breadth of languages from most of the major language families; it is common among both groups of children to use three or more languages in the everyday life, and especially the family and media domain are characterised by a high degree of multilingual use. However, we also found some differences.

Our two participating groups reported different language use patterns in their social lives with friends; two-third of the IB pupils reported more than one language, while a majority of the state school pupils, two-third, reported only one language (Table 3). This skewed distribution seems to be due to the IB pupils' far more frequent use of English in communication with friends; not very surprising considering these pupils' language of instruction at school.

Two other differences might be more relevant for the 'elite' issue (Barakos \& Selleck, 2019; Nørreby, 2020; Rydenvald, 2015): The IB children used more languages among friends than the state school children (Table 3); and it was more prevalent among the IB children than the state school children to use other languages than Norwegian and

English in media (SS: 14\%, IB: 35\%, Table 5). Earlier studies of 'elite' multilingualism have suggested that it has to do with the multilingualism being by free will (e.g. Rydenvald, 2015), or that languages have higher status (e.g. Paquet \& Levasseur, 2019). Our results, that the IB pupils use more languages to friends and in media, could point to another characteristic of 'elite' multilingualism, that it is dynamic and has to do with aspirations to reach a certain life-style. The more frequent use of many languages among friends and in media, might give the IB children social capital that facilitates future access to a 'national or global perceived elite (way of life)' (Barakos \& Selleck, 2019, p. 362). But the differences of language use of the two groups are not large, and our comments are just assumptions: our participants are young children who were registered in the IB school by their parents, so this issue should probably rather have been discussed with the children's parents. However, both groups seem to be well prepared for a global life when we consider their large linguistic repertoire.

Even if this study only examines two schools, and the participants are not statistically randomised, the data contribute to draw a more nuanced picture of a new, globalised, dynamic form of multilingualism. The findings demonstrate that children are citizens of a multilingual world and adapt their language use according to what the situation requires. The results from this study point to a dynamic multilingualism that stretches beyond the concepts of home language and school language. The data from the children create expectations of an exciting linguistic future scenario, both in terms of human contact and communication across borders and attitudes to languages, and perceptions of what is the most common language use pattern and behaviour in late modern society. The study gives a more detailed picture of multilingual children, by showing their comprehensive linguistic repertoire, including typological variation, and how flexibly they use their languages.

Despite the detailed picture of the linguistic repertoire, a questionnaire does not give full information. Future studies could complement questionnaires by interviewing both children and parents to learn more about the experiences of growing up multilingually.

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## ORCID

Ragnar Arntzen (i) http://orcid.org/0000-0002-0792-2759
Gisela Håkansson (D) http://orcid.org/0000-0002-4329-4542

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## Appendices

## Appendix 1. Language map (translated from Norwegian)

For the pupils


## Appendix 2. Languages used in family, among friends and when using media. SS = state school pupil, IB = IB school pupil.

|  |  | Family |  | Friends |  | Media |  | Sum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Language | SS | IB | SS | IB | SS | IB |  |
| G | Afrikaans |  |  |  | 1 |  |  | 1 |
| G | Danish | 2 | 5 | 1 | 2 | 2 | 3 | 15 |
| G | English | 35 | 50 | 28 | 65 | 120 | 82 | 380 |
| G | German | 5 | 4 | 3 | 3 | 3 |  | 18 |
| G | Norwegian | 134 | 106 | 145 | 101 | 133 | 70 | 559 |
| G | Swedish | 3 | 7 |  | 8 |  | 14 | 32 |
| R | Catalan | 1 | 2 | 1 |  |  |  | 4 |
| R | French | 3 | 3 | 3 |  | 4 |  | 13 |
| R | Italian | 1 | 1 |  | 1 |  | 1 | 4 |
| R | Romanian |  |  |  | 1 |  |  | 1 |
| R | Spanish | 1 | 6 |  | 3 | 3 |  | 13 |
| S | Bosnian | 2 | 2 | 1 | 1 | 1 | 1 | 8 |
| S | Bulgarian |  | 1 |  |  |  |  | 1 |
| S | Czech | 1 |  |  |  |  |  | 1 |
| S | Polish | 3 | 2 | 2 | 1 | 1 | 1 | 10 |
| S | Russian | 2 | 4 |  | 3 | 1 | 3 | 13 |
| B | Lithuanian | 3 | 1 | 2 |  | 2 |  | 8 |
| A | Kosovo-Al | 1 |  | 1 |  |  |  | 2 |
| I | Dari | 2 |  | 1 |  |  |  | 3 |
| I | Kurdish | 3 |  |  |  |  |  | 3 |
| 1 | Persian/Farsi | 2 |  | 1 |  |  |  | 3 |
| IA | Hindi |  |  |  | 1 |  |  | 1 |
| IA | Nepali | 1 |  |  |  |  |  | 1 |
| IA | Urdu |  | 2 |  |  |  | 1 | 3 |
| D | Tamil |  | 2 |  |  |  | 1 | 3 |
| D | Telugu |  | 2 |  |  |  | 1 | 3 |
| FU | Finnish | 2 |  | 1 |  | 1 |  | 4 |
| FU | Sami |  | 2 |  | 2 |  | 2 | 6 |
| AAS | Amharic |  |  |  |  | 1 |  | 1 |
| AAS | Arabic | 4 | 4 | 1 | 4 |  | 2 | 15 |
| AAS | Assyrian | 3 |  | 2 |  |  |  | 5 |
| AAS | Tigrinya | 1 |  |  |  | 1 |  | 2 |
| AAO | Berber | 2 |  |  |  |  |  | 2 |
| AAO | Somali | 16 |  | 8 |  | 2 |  | 26 |
| NK | Swahili | 1 |  |  |  |  |  | 1 |
| Ko | Korean |  |  |  | 1 |  | 2 | 3 |
| Ja | Japanese | 1 |  |  |  | 1 |  | 2 |
| ST | Chinese |  | 2 |  |  |  | 1 | 3 |
| TK | Thai | 1 |  |  |  |  |  | 1 |
| AA | Vietnamese |  | 1 |  |  |  |  | 1 |

G, Germanic; R, Romans; B, Baltic; A, Albanian; Ar, Armenian; I, Iranian; IA, Indo-Aryan; D, Dravidian; FU, Finno-Ugrian; Tu, Turkic; AAS, Afro-Asiatic Semitic; AAO, Afro-Asiatic Other; NK, NigerKongo; Ko, Korean; Ja, Japanese; ST, Sino-Tibetan; TK, Tai-Kadal; AA, Austro-Asiatic; Au, Austronesian.


[^0]:    CONTACT Ragnar Arntzen ragnar.arntzen@hiof.no Ragnar Arntzen, Skomakerveien 5, 1671 Fredrikstad, Norway
    © 2022 The Author(s). Published by Informa UK Limited, trading as Taylor \& Francis Group
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