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# **Developmental Benefits of Bilingual Children**

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## **1** Introduction

## 1.1 The present study and its aims

The following research paper will be focusing on the developmental benefits of learning two languages at once as a child. The study will emphasize the children from kindergarten. The project will take into account the cognitive and social developments of children and how it affects their linguistic capabilities. Studies suggest that many children around the world grow up exposed to more than two languages from an early age (Byers-Heinlein & Lew-Williams, 2013: 95-112). Children, when young, rapidly grow their executive function skills (Center on the Developing Child at Harvard University, 2014). Due to this reason, many researchers are of the view that early years are the suitable time for learning more than two languages (Hartshorne, 2020). This study has prompted researchers to say that the earlier a child starts learning a second language, the better. Language acquisition skills seem to be peeking before the age of seven. This research paper aims to answer the research questions such as what bilingual developmental changes do kindergarten teachers and parents observe from age 3 to 6? What advantages of being bilingual do kindergarten teachers and parents observe? And what challenges do the kindergarten teachers encounter when teaching language and what challenges parents face while raising children. The research paper will shed light on the benefits of bilingualism such as communication skills, social and cultural cohesion, increased brain function, and more career opportunities in the future (Marian & Shook, 2012). This will be done by taking an interview with three kindergarten teachers and thirteen parents will participate in questionnaire survey.

## 1.2 Research context and its relevance

Being *bilingual* means the ability to operate with and understand more than one language (Valdés, 2012). Other scholars such as Liddicoat point out that there are different definitions of bilingualism (Liddicoat, 1991). According to Liddicoat, one definition states that being bilingual means being able to construct coherent sentences in another language. He also discusses different types of bilingualism. For instance, simultaneous and successive bilingualism. According to Liddicoat when a child learns two languages simultaneously, it is called simultaneous bilingualism, and both languages can be considered the child's first languages. On the other hand, if a child learns a second

language after thoroughly learning the first one, then it is called successive bilingualism (Liddicoat, 1991). Bilingualism was surrounded by many myths in the 30s and 40s. From the 1990s onward, research into bilingualism has been on the rise (Keatley, 1992). Research into how a child's cognitive faculties differentiate between different abstract notions in order to learn languages is studied in linguistics (Peña, Bedore & Z.-G., 2002: 938-947). Not only that, but researchers are interested in exploring the cognitive development of bilingual children (Barac & Bialystok, 2011: 36-54). The latest studies continuously stress the positive aspects of being bilingual, thus challenging the predominant concerns parents typically have for their bilingual children (Barac & Bialystok, 2011: 36-54). As of today, there is a higher percentage of being bilingual in schools, and educators are changing the way language has been taught in schools. Teachers working with culturally and linguistically diverse student populations in Norway (Krulatz, Steen-Olsen & Torgersen, 2018).

## **1.3 Thesis Outline**

Following the introduction section, the subsequent section is theory, chapter 2 "Theory" deals with the theoretical aspects of bilingualism in children, the current studies on bilingualism, how the phenomena of bilingualism are interpreted by various researchers in the field of linguistics, and a literature section that will review numerous studies to determine the overall benefits of being bilingual for children, such as cognitive benefits, social benefits, and job opportunities. This section will also analyze the developmental benefits and the differences between learning a second language before and after the age of seven. In chapter 3 "methodology" will present the interview and questionnaire section. The interview section will be used to obtain input from kindergarten teachers who deal with bilingual children. The questions are designed to derive the differences bilingual children have with respect to other children. Finally, there will be a questionnaire for parents to answer about their children relating to bilingualism like the benefits they observe and challenges they face while raising them. In chapter 4 "results" the results received from teachers and parents will be presented. In chapter 5 "discussion" the collected material will be discussed and analyzed. In chapter 6 "conclusion" this will conclude and raise a few further research questions on this topic.

## 2 Theory

## 2.1 Introduction

The theoretical aspect of this research paper will be presented in this chapter. The first section will shed some light on the historical background that helped the research into bilingualism emerge. The second section will deal with the current research methods in bilingualism.

## 2.2 A brief historical overview of bilingualism

This section will briefly touch upon the history of researchers that studied bilingualism. Research into bilingualism has been around for quite some time (Keatley, 1992). Even though researchers showed a great interest in exploring the cognitive capacities of bilingual children, the research into bilingual capabilities was poorly done (Hakuta & Garcia, 1989). Due to faulty research methods, the studies were unable to produce any significant benefits for the researchers. The suboptimal research methods, coupled with some prevalent myths about bilingualism, tended to portray bilingual children as unintelligent, so much so that the early researchers seemed to propagate false conclusions about bilingualism in children, such as the claim that bilingual children did poorly in school (Hakuta & Garcia, 1989). The first proper study that shed some positive light on bilingualism in children were compared to French-speaking monolingual students. This was the first case of a reasonable approach towards bilingualism in children that sought to challenge the predominant beliefs about bilingualism in children. Inspired by this study, other teams of researchers also took the initiative to develop bilingual research among children throughout the 1990s (Keatley, 1992).

## 2.3 Current research methods in bilingualism

With the growing technology and new perspectives, research methods into bilingualism are also evolving. Many researchers are now using web-based interfaces to collect language acquisition data (Li,Sepanski & Zhao, 2006: 202-210). These web-based interfaces involve presenting visitors with a questionnaire that they can answer. Researchers constantly suggest new perspectives to interpret the data collected from bilingual studies (Pavlenko, 1999: 209- 230). Pavlenko argues for

new approaches towards the study of concepts in bilingualism. She addresses the sociolinguistic, psycholinguistic, and neurolinguistic constraints on the conceptual representation. Other researchers show interest in exploring bilingual children's cognitive development (Peña, Bedore, and Zlatic-Giunta, 2002: 938-947). Some studies now compare brain network activity between monolinguals and bilinguals (Grady, Luk, Craik, & Bialystok, 2015: 170-181). In the 2015 study, it was found that bilinguals show stronger correlations than monolinguals between intrinsic connectivity in the FPC and task-related increases of activity in prefrontal and parietal regions. Another research by Cenoz discusses the major trends in the field of bilingualism (Cenoz & Genesee, 2001). Cenoz discusses the simultaneous acquisition of the first two languages in bilingual children. According to Cenoz, there are three ways to see bilingualism through sociolinguistics, psycholinguistics, and infant research. All of these points help to understand the benefits of bilingualism.

## 2.4 Literature

This section will focus on studies and research carried out in the field of bilingualism about the benefits of being bilingual. Going all the way back to 1962, the first proper study done in the field of bilingualism in children discovered numerous positive aspects of bilingualism in children. Peal and Lambert (1962) were cautious about the way they designed the study and wanted to conduct it properly. Initially, they expected that bilingual children would score the same as monolingual children on non-verbal tasks but a bit lower than monolingual students on verbal tasks. However, it turned out that bilingual children were much better at performing almost every task at hand (Peal & Lambert, 1962). Inspired by this study, other groups also carried out numerous studies to explore the differences between bilingual and monolingual children. An example of that is Bialystock group. This group found numerous cognitive benefits in the development of bilingual children such as better assessment of working memory and lexical retrieval (Bialystok, 2008). In another study, they explored the development of phonological awareness in bilingual children between kindergarten and grade-2 (Bialystok, Majumder & Martin 2003). Three studies were done by them, and the third study seems to suggest that Spanish-English speaking bilingual students performed better on phoneme segmentation tasks. Furthermore, many studies suggest that bilingual children outperform monolingual students on tasks that require executive functioning (cognitive processes that guide behavior) of the brain (Blom, Boerma, Bosma, Cornip&Emma 2017). For the 2017 study,

7-years-old bilingual children from the Netherlands were compared to monolingual control groups. The subsequent study focused on parental preferences raising bilingual children (Lee et al, 2015). This study included parents that were raising Spanish-English speaking bilingual children of ages 3-7 years old. The parents not only showed an interest in teaching their children a second language, but they also stated that being bilingual provided better career opportunities for their children and helped them preserve their culture and native language. Many studies also focused on how learning a second language improved the social skills of children, such as better communication and comprehension (Genesee, Tucker & Lambert, 1975). For the 1975, three groups of schoolchildren were put under the test. These three groups belonged to children from kindergarten, grade 1, and grade 2. It was found that bilingual children while talking to people, were flexible and explicit. Many sociological advantages of being bilingual were discovered in this 2007 research paper (Duff, 2007). The study by McCardle suggests that bilingual children grow with unique experiences in their school years, such as better comprehension and being aware of more concepts (McCardle& Hoff, 2006). The following study also sought to explore the communication skills of bilingual children (Gampe, Wemelinger & Daum, 2019). Similar to the 1975 study by Genesee, the 2019 study by Gampe showed that bilingual children were more flexible and explicit when talking to people. Bilingual children were better to adapt to different communication strategies depending on the context. According to a study by Cummins, being bilingual plays a crucial role in the development of a child both cognitively and academically (Cummins, 1979). Codeswitching also often occurs in bilingual classrooms, as studied by this 1995 paper (Martin-Jones, 1995). Code-switching refers to alternating between two or more languages (Heller & Pfaff, 2008). Returning to the Bialystok group, their studies consistently showed that bilingual children processed many metalinguistic advantages over monolingual children (Bialystok, 1987). According to Bialystok (1987), bilingual students showed a better understanding and comprehension of specific concepts that dictate their ability to learn a language. These factors collectively contribute to the cognitive development of bilingual children. When it comes to pedagogy, studies suggest that teachers require a robust understanding of bilingualism and how many factors affect the bilingual context of the classroom (Palmer & Martinez 2013). Palmer (2013) makes a case that there are not nearly enough resources for teachers to adequately engage with bilingual children in the classrooms. This paper lists what tools parents can use to evaluate the performance of their bilingual children (Tokuhama-Espinosa, 2000). This 1985 paper by

Horwitz concluded that teacher's attitudes towards bilingual students have massive implications for pedagogy (Horwitz, 1985). According to Edwards, parents also have their role in helping their children gain proficiency in the second language (Edwards, & Newcombe,2006). However, when it comes to the benefits of bilingualism, the relevant literature happens to be contradictory with each other, as explored in this 2018 paper (Yu & schwieter 2018). This 2020 paper by Nichols also concluded that the benefits of bilingualism vary depending on the proficiency of language (Nichols et al, 2020). To summarize, the studies cited in this section make a strong case that bilingualism has numerous benefits for children in their developing years. However, there is also a discrepancy in the relevant literature regarding those benefits.

# **3** Methodology

## **3.1 Introduction**

In this section, the methodological aspect of the research paper will be presented. This section aims to explore the developmental benefits of learning two languages simultaneously as a child. This chapter will introduce the interview and questionnaire as a mean to obtain data. The scope of the interview and questionnaire section also includes the cognitive, social, neurological, cultural, and other differences between bilingual and monolingual children. This section aims to obtain data from parents and teachers on the benefits of bilingualism. The benefits can include diverse aspects such as career opportunities, social skills, communication skills, memorizing skills, vocal skills, education, and brain activities. The interview section aims to do a thorough analysis of the developmental changes kindergarten teachers observe in children during early years. The section will also explain the advantages of being bilingual that the kindergarten teachers observe in children. This way, the researcher will be able to contribute to the research regarding the benefits bilingual children have over monolingual children.

## 3.2 Interview and questionnaire

The primary research method of this thesis is interviews and questionnaires, which will help the thesis obtain data from parents and teachers. The questionnaire were given to thirteen parents while interview questions were given to three teachers and their answers would be recorded. The

interview questions as a research method are widely used alongside focus groups to obtain data in many scientific journals in academia (Gill,Treaure & Chadwick, 2008). These are also popular research methods in applied linguistics (Dörnyei, 2007: 136). The questionnaires given to parents will be quantitative, while the interview questions given to teachers will be qualitative. Brinkmann writes in the Oxford Handbook of qualitative research that semi-structured interviews have been a standard method to ask deep questions for centuries (Leavy,2014). Brinkmann further writes that it is easier for the interviewer in one-on-one qualitative questions to lead the conservation in favour of the research questions. Brinkmann defines semi-structured interviews as a method of obtaining descriptions of the interviewee's life. Merriam & Tisdell regard qualitative research as an attempt to explore the meaning of phenomena instead of focusing on mainly numerical aspects of the phenomena (Merriam, & Tisdell, 2015). According to Dörnyei, questionnaires in second language research are a great way to explore facts, behavior, attitudes, opinions, beliefs, interests, and values (Dörnyei, & Taguchi, 2009). Dörnyei defines questionnaires as a way to present interviewees with a series of questions which can be responded to by the interviewee through written answers or by selecting an existing answer.

# **4** Findings

## 4.1 Introduction

In this section, the data obtained from the parents and kindergarten teachers will be presented. The data will help the thesis answer the research questions about bilingualism and the developmental benefits of being bilingual. The first section will deal with the data collected from parents, while the second section will deal with the data collected from kindergarten teachers. The findings are structured based on categories and themes for the data obtained from parents via questionnaire . For the data obtained from teachers, the findings are chronologically structured based on each case. The findings for each case are divided into two portions, i.e., Background information and the interview questions.

## 4.2 Data from parents

## 4.2.1 Background

The children were between 5-6 years of age. Most bilingual parents and their children used Urdu and English to communicate at home, some also spoke Punjabi, Norwegian, Eritrean, and Malayalam.

#### 4.2.2 Experiences with bilingual children

#### 4.2.2.1 Developmental changes in bilingual children from ages of 3 to 6

The findings from the open-ended questions positive changes in the development of bilingual children. Parents report that their children quickly acquired new information ,more attentive, more confident, adaptive, and well-equipped to multitask. Further, parents reported that their bilingual children have high IQ level. They noticed that it was easier for their children to mingle with other children. Some parents also stated that being bilingual made it easy for their children to learn a third language. One parent reported that their child was better at solving math problems than the child's monolingual relative.

### 4.2.2.2 Advantages of being bilingual

Parents stated that being bilingual had numerous advantages for their children. For instance, one parent reported that being bilingual boosted their child's confidence and they quickly understood the nuances of different cultures, they were more expressive, easily made new friends, had a good memory, and had a better vocabulary. Parents were hopeful that bilingualism could allow their children to avail more job opportunities in the future.

#### 4.2.2.3 Challenges of raising bilingual children

When asked about the challenges parents faced while raising their bilingual children, most parents reported having no significant challenge. Their children quickly learned new concepts and were attentive. However, some of the parents reported that their children had less interest in their native language. Parents were concerned that their children had a comparatively weaker vocabulary in their native language. Some reported that their children mixed up words from different languages when constructing a sentence. For some parents, the process of translating one language to another was time-consuming. Parents also reported that their children faced challenges when socializing

with monolingual children and relatives; however, they were optimistic that this could be solved through teaching socialization to their children.

## 4.2.2.4 Frequency of code-switching in bilingual children

The close-ended questions asked parents whether their children knew about code-switching. 61% of the parents choose the slightly agreed option. The other 30% were agreed, and 7% were strongly agreed.

## 4.2.2.5 Memorization skills of bilingual children

Regarding memorization skills, 61% of the parents agreed that their children had sharper memory, 7% were slightly agreed, and 23% were strongly agreed. However, 7% of the parents disagreed with this view.

## 4.2.2.6 Confidence in bilingual children

When asked about whether being bilingual helped build confidence in their children, 46% of the parents agreed and 46% strongly agreed with the view. However, the remaining 7% only slightly agreed.

## 4.2.2.7 Proficiency in the native language of bilingual vs monolingual children

Regarding proficiency in their native language than monolingual children, 30% of the parents agreed. Other 38% were slightly agreed while the remaining 30% disagreed.

## 4.2.2.8 Reading skills of bilingual children during development ages

Regarding early reading skills, 23% of parents strongly agreed, 23% agreed, and 30% of the parents slightly agreed. The remaining 15% were slightly disagreed, and 7% disagreed.

## 4.2.2.9 Differentiation between languages by bilingual children

Regarding confusion between two languages, most parents disagreed with the notion. For instance, 38% disagreed while 23% slightly disagreed. The remaining 38% were slightly agreed.

## 4.2.2.10 Critical thinking skills in bilingual children

Regarding critical thinking skills, 38% were agreed, 23% were strongly agreed, and 7% slightly agreed. However, 15% of the parents disagreed and 15% slightly disagreed.

#### 4.2.2.11 Suitable age to learn new languages

When parents were asked whether younger ages, i.e., between 3-6, were the optimal ages to learn a new language, most parents agreed to this notion. For instance, 46% of the parents strongly agreed while 46% were agreed. The remaining 7% slightly disagreed.

#### 4.2.2.12 Reading skills of bilingual vs monolingual children

When parents were asked about better reading skills than monolingual children, most parents agreed to the question, 30% were agreed, 23% were strongly agreed, and 38% were slightly agreed. In contrast, 7% of the parents slightly disagreed.

## 4.2.2.13 Impact of bilingualism on children's language development

Regarding negative impacts on language development due to bilingualism. Most parents disagreed. For instance, 69% of parents disagreed, and 15% strongly disagreed. The other 7% agreed and the remaining 7% slightly agreed.

## 4.2.2.14 Flexibility of communication in bilingual children

Regarding flexibility while talking to people, all the parents agreed like 46% strongly agreed, 38% agreed, and the remaining 15% slightly agreed.

#### 4.2.2.15 Parental preference of teaching their children bilingualism due to globalization

When parents were asked whether their motivation to teach their children a second language was due to globalization, all parents agreed that it was the reason, 46% strongly agreed, 46% agreed, and the remaining 7% slightly agreed.

#### 4.2.2.16 Role of bilingualism in helping children explore new concepts

Parents unanimously agreed. For instance, 61% strongly agreed, and 38% agreed.

## 4.3 Data from teachers

## 4.3.1 Teacher 1

#### **4.3.1.1 Background and qualification**

Teacher 1 was 31 years old. She was a kindergarten teacher and an educational leader. She started teaching bilingual children in 2012 and had accumulated experience of 9 years.

#### **4.3.1.2** Experiences with bilingual children

When asked about the developmental changes in the bilingual children from the ages 3 to 6, the teacher reported that she did not find significant developmental changes in bilingual children. She further added that bilingual children have already acquired one language and primarily relate to their first language when communicating with other children, resulting in them taking longer to acquire a second language. She claims that the exact changes and qualities of the children depend on the individual case. Her bilingual students did not raise any particular challenges; however, she adds that one should be clearer when talking to a bilingual child to communicate properly. Furthermore, children did not exhibit any unique benefits of being bilingual compared to monolingual. Only a few children communicated with their mother tongue in his classroom to maximize sociability. She noticed that bilingual children are good at communicating with other students. Children utilized hand gestures when they were unable to verbally communicate in the predominant language of the classroom. Regarding the reading skills of bilingual children, the teacher claimed that a child's reading skills vary from person to person depending on the proficiency of the second language. She held the same opinion regarding the language skills and creativity of bilingual children. In the teacher's kindergarten, the predominant language was Norwegian. She stated that it is difficult for children to separate languages initially, but they learn to distinguish between them with time. She stressed that the proficiency of the second language determines how well bilingual children acquired new information. She believed that bilingual children who do not have optimal proficiency in the second language require more effort to understand the instructions accurately.

### 4.3.1.3 Teacher's attitude towards bilingual children

Teacher 1 did not encounter any significant challenges while teaching bilingual children. However, bilingual children require effort before they understand the second language correctly, which can be overcome by using hand gestures, pictures, and other tools such as ASK (asking effective questions), day board, props, and facial expressions. She emphasized that parental cooperation is important.

## 4.3.2 Teacher 2

#### 4.3.2.1 Background and qualification

At the time of the interview, the teacher was 27 years old. She started teaching kindergarten children in January 2021.

#### 4.3.2.2 Experiences with bilingual children

Teacher 2 reported that bilingual children could quickly learn a third and fourth language. She did not face any significant challenges when dealing with bilingual children, albeit sometimes they required pictures and translating words when they did not understand the concepts. She explained that children speak Norwegian, Polish, and English. Children primarily spoke Norwegian and a mixed vocabulary of Norwegian and English. She applauded the listening skills of bilingual children while also stating that they require more concentration to understand the second language. Her personal opinion held that bilingual children are more creative compared to monolingual children. She considered bilingual children to be equally as good at acquiring and retrieving new information as monolingual children. She further explained that knowing Norwegian can improve a student's sociability even though physical activities require less verbal interaction with the other children.

#### 4.3.2.3 Teacher's attitude towards bilingual children

The teacher did not find the mixing of words by children a significant problem and added that her concern is the mispronunciation of words by children when constructing sentences. She used symbols, pictures, and gestures to communicate with bilingual children and teach them new concepts. If a child did not understand the concept, the teacher tries to translate the concept into the student's mother tongue.

## 4.3.3 Teacher 3

#### 4.3.3.1 Background and qualification

At the time the interview, the teacher was 48 years old. She had been teaching for thirteen years and had been teaching bilingual children for ten years. She had a master's degree in pedagogy.

#### 4.3.3.2 Experiences with bilingual children

Regarding the developmental changes in bilingual children, she reported that bilingual children were swiftly learning new words when playing and talking with other children. Learning about the culture of other children helped bilingual children in socializing. She said that bilingual children are more flexible at communication, are more aware of their surroundings, and are more expressive of their thoughts and opinions to other people. Children belonged to thirteen different nationalities in her classroom, but they generally spoke only one language. She explaines bilingual children often mixed up words from different languages when speaking to classmates. Children switched to their mother tongue when they could not correctly communicate using the other language. The teacher praised the listening skills of bilingual children as they were attentive when instructions were given, or music was played in the class. She believed that language proficiency varies from child to child depending on how well the child understands the other language. She added that every child learns about the language at his own pace, and every child has a different process to acquire new information. She reported that although the creative skills of bilingual children do not surpass that of monolingual students, the difference can vary depending on the age of the child, e.g., A six-years-old child can have more creativity compared to a three-years-old. She stated that repetition is very important for new concepts. She taught repetition methods to their children in

kindergarten. Regarding the social interaction the teacher reported that it depends on the child's personal preferences; some are more social than others.

#### **4.3.3.3 Teacher's attitude towards bilingual children**

The teacher experienced the bilingual children's inability to construct proper sentences in the second language as a challenge. She stressed the role of patience during the process. She advised not to interrupt children when speaking and to wait until they finished before correcting them. Teachers utilized many tools and techniques to teach bilingual children, such as books, figures, concreters, and a computer screen. The teacher explained that they use different techniques because every child is different.

## **5** Discussion

## **5.1 Introduction**

This chapter will discuss the main findings of the thesis as outlined in the previous chapter, and the subsequent section will discuss the findings of the research in light of previous relevant studies and research put forth in the theory and methodology chapters. This chapter will discuss to what extent the developmental benefits of being bilingual can be identified from the data collected from parents and teachers. The subsequent sections will answer the research questions of the thesis and how the obtained data can be interpreted in light of the relevant scientific literature on the issue of bilingualism, along with the implications the data carries. Furthermore, the sections will also shed light on the limitations of the data obtained and what the data can not answer. The sections will discuss the separate categories reported in the findings section, such as developmental changes, advantages, and skills. The sections will take into account the experiences parents and teachers have with bilingual children and how these experiences can give us a firm conclusion on the developmental benefits of being bilingual. However, since the topics discussed are linked to the overall experience with bilingual children, the topics might overlap.

## 5.2 The developmental benefits of being bilingual for children

In the findings, both teachers and parents found positive developmental changes in bilingual children, such as confidence, sociability, critical thinking skills, and problemsolving. So far, the data collected from parents and teachers regarding the developmental changes conform to the relevant scientific literature cited in the theory and methodology sections. For instance, similar results were explored in a 2017 paper (Blom Elma et al, 2017). However, not all parents and teachers agreed that bilingual students had significant developmental benefits compared to monolingual children. Out of three, only one teacher agreed that bilingual students had the edge over monolingual students. If the advantages of being bilingual for children are taken into account, the results of this paper are contradictory with each other. Even though most parents generally believed that their children outperformed monolingual students, most teachers in this thesis did not report any significant advantage. Similarly, the relevant literature on bilingualism in children is also contradictory with each other, as explored in this 2018 paper (Yu & Schwieter, 2018). The findings in the thesis and from relevant scientific literature imply that the precise benefits of being bilingual vary depending on the proficiency of language as suggested by the kindergarten teachers and as suggested by this 2020 paper (Nichols Et al, 2020).

The current thesis also took into account the social benefits of being bilingual rather than strictly cognitive benefits. Most parents and teachers unanimously agreed that bilingual children quickly understood different cultures and faced little challenges in mingling with the other children that spoke a different language. Similar sociological advantages of learning a second language are explored in the 2007 research paper (Duff, 2007). By the data obtained from the 2007 research paper and the current thesis, it can be concluded that learning a second language helps in socialization and mingling with other people. As the parents reported, bilingual children are more flexible when talking to a person, according to the 2019 research paper (Gampe,Wermelinger & Daum, 2019). Even though the data is conflicted on the notion that bilingual children have a cognitive edge over monolingual children, both the data in this thesis and the relevant journals such as Gampe and Genesee agree that bilingualism helps children have better communication skills. For this reason, parents also reported having a preference to teach their children a second language due to globalization.

## 5.3 The challenges of being bilingual for children

Even though parents and teachers did not report any significant challenge when dealing with bilingual children, both of them stressed the importance of clear speech and the use of sophisticated techniques when teaching children a second language. To ensure the proficiency of the child in the second language, teachers advised a plethora of teaching techniques and use of tools. The way teachers deal with bilingual children has tremendous implications on the proficiency of the child in the second language, as expanded upon in the 1985 research paper (Horwitz, 1985). This paper argues that assessing the beliefs children have with learning a second language as well as the teaching methods can dramatically improve the results teachers expect in classrooms. During the interview, teachers advised parents to take a chief role in teaching their children a second language. The parental role in helping a child gain proficiency in the second language is expanded upon in the 2006 research paper (Edwards & Newcombe, 2006). Although there are no significant challenges in dealing with bilingual children, the teachers and parents are advised to remain faithful to their role and make use of accurate tools and techniques to improve the child's proficiency in the second language. Some parental concerns included the fact that children showed less interest in their native language.

## 5.4 The limitations of the thesis

The data obtained by the current thesis has its own limitations, which have implications on how one should interpret the findings of the current thesis. Parental reports are, in some cases, exaggerated and distorted. In contrast, the experiences of teachers with bilingual children are more objective in terms of what conclusions can be drawn from the data provided.

# **6** Conclusion

The thesis attempted to explore the developmental benefits of being bilingual for children by answering the following questions. What bilingual developmental changes do kindergarten teachers observe from age 3 to 6? What advantages of being bilingual do kindergarten teachers observe from 3 to 6? And what challenges do the kindergarten teachers encounter when teaching language? The thesis accomplished this task by a literature review and conducting interviews and

questionnaires. The literature review uncovered the research conducted on the phenomena of bilingualism in the relevant fields, while the interview and questionnaire helped the thesis obtain data from parents and teachers. The literature review went through the relevant scientific papers and unraveled numerous developmental benefits of bilingualism. The developmental benefits included the benefits in terms of cognition and sociability. At first glance, the results from the relevant research papers could lead one to believe that bilingual children possessed a cognitive edge over monolingual children. However, the other studies discussed in the review point towards the opposite such as the study by Nichols in 2020. The study by Yu in 2018 discussed the apparent contradiction between the different studies and argued that reaching a firm conclusion on the cognitive superiority of bilingual children would demand more empirical evidence than what academia currently has. Next, the interview and questionnaire section allowed the thesis to look deeply into the issue. Even though the data obtained from parents and teachers has some contradiction. The apparent contradiction can be accounted for by the exaggeration of the child's capabilities by the parents. Data from parents can be distorted or exaggerated and, therefore, can explain the difference between data. The data from teachers can be thought of as comparatively objective in that regard, as the teachers were professional in their work. However, data from teachers can also be subjective based on their biases. The data consistently showed there are little to no signs of a cognitive superiority of bilingual children. The teachers predominantly held the view that the cognitive edge, if there was any, varied depending on the individual children. As far as cognitive benefits of bilingual children are concerned, both the data from teachers, parents, and the relevant literature suggests that bilingual children did not have a cognitive advantage over monolingual children (Nichols et al, 2020). Furthermore, the conflicting data from the relevant scientific studies do not allow for any firm conclusions on the issue (Yu & Schwieter, 2018). From these results, it should be noted that if bilingualism contributes to higher cognitive function, then the relevant scientific field should employ rigorous methods to uncover that contribution. For the time being, this research will conclude that the current literature is unable to answer the question mentioned above. However, the same can not be said about the sociological benefits of bilingualism. The literature study suggests that bilingual children performed well when it came to the flexibility of communication and understanding of nuances. Unlike the cognitive studies on bilingualism, the sociological aspects of bilingualism are well supported by the different academic research papers. Furthermore, the interview and questionnaire also attested to this notion. To

summarise, both the relevant studies and the results of the thesis show that bilingualism has many sociological advantages for children, such as flexibility of communication (Gampe, Wermelinger & Daum, 2019). By the analysis of the results extracted from the literature review, interview, and questionnaire, the thesis will conclude that bilingualism contributes to an enormous sociological improvement in children in terms of flexibility of communication, understanding of nuances, and understanding of culture. A key finding of the research paper was there is no negative impact of learning a second language for children. Moving on, in terms of the challenges posed by bilingual children, data from teachers and parents do not show any significant challenge. Teachers of bilingual children reported that to improve the proficiency of bilingual children in the second language, teachers had to put more effort. This input suggests that to ensure proficiency in the second language, both parents and teachers need to utilize sophisticated teaching methods. The thesis, therefore, concludes that being bilingual has numerous social advantages for children if the teachers and parents remain faithful to their role as transmitters of information. As for the cognitive aspects discussed in this essay, the thesis concludes that more research is needed to reach a better conclusion.

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# **Appendix A: Interview Guide**

## **Background and qualification:**

- 1: How old are you?
- 2: How long have you been teaching bilingual children in kindergarten?
- 3: What is your educational qualification?

## **Experiences with bilingual children:**

- 1: What developmental changes do you observe in bilingual children from age 3 to 6?
- 2: What advantages of bilingualism have you observed in bilingual children?
- 3:What type of challenges do you encounter while teaching language to the bilingual children?
- 4: What languages do the children in the kindergarten use?
- 5: When do they use their home language and when do they mix different languages?
- 6: What have you observed concerning the listening skills of bilingual children?
- 7: How, in your opinion, do the language skills of bilingual children develop?
- 8: What have you observed about the creativity of bilingual children?
- 9: How well does the bilingual children learn and remember the new information?

10: How well do bilingual children socially interact with other children and people in kindergarten?

## Teacher's attitude towards bilingual children:

1: What challenges do the kindergarten teacher encounter when teaching language to bilingual children?

2: Do you find it hard to explain to bilingual children who mix languages? Why/why not?

3: Do you use any particular techniques or approaches to teach bilingual children? What techniques/approaches?

# **Appendix B: Questionnaire**

There are two parts of this questionnaire. The first part is designed to collect background information. The second part includes questions that are designed to ascertain parents' persective about the developmental benefits of their bilingual children.

## <u>Part 1:</u>

- 1: What is the age of your child?
- 2: What language do you use at home?

# **Part 2:**

1: What developmental changes do you observe in your 3 to 6 years old bilingual children?

2: What advantages of bilingualism have you observed in your bilingual children?

3: What langauge challenges do you encounter while raising your bilingual children?

4: Are children aware of code-switching?

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

5: Bilinguals have a sharp memory.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

6: Bilingualism helps to boost the confidence of young children.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

7: Bilinguals have more vocabulary of their native language as compared to monolinguals.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

8: Early reading skills tend to come more easily to bilingual children.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

9: Bilingual children get confused between the different languages.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

10:Bilinguals are good at critical thinking.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

11: Acquiring the second language at an early age helps to learn more languages.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

12: Bilingual children have improved reading skills.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

13: Bilingualism has a negative impact on children's language development.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

14: Bilingual children are more flexible while talking to other people.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

15:Parents are in favoure of teaching their children a second language because of globalization.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

16: Learning a second language helps children to explore new things.

1.	2.	3.	4.	5.	6.
Strongly	Agree	Slightly	Strongly	Disagree	Slightly
agree		agree	disagree		disagree

# **Appendix C: Information letter from NSD**

Are you interested in taking part in the research project

# **Project title:**

Developmental benefits of bilingual children

This is an inquiry about participation in a research project where the main purpose is to study the developmental benefits of bilingual children. In this letter we will give you information about the purpose of the project and what your participation will involve.

# **Purpose of the project:**

The purpose of this research is to know the differences between bilingual and monolingual. The observation of a teacher who is been teaching bilinguals, what sort of difference they feel and observe. This research is for a Bachelor thesis.

# Who is responsible for the Research project?

Universirty of Stavanger

# What does participation involve for you?

The method is interview. Your answers will be recorded by using an audio recorder.

# **Participation is voluntary**

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

## Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

# Who, in connection with the institution responsible for the project, will have access to the personal data

Supervisor

## What will happen to your personal data at the end of the research project?

It will be deleted on 30<sup>th</sup> May ,2021.

# Your rights

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
  - request that incorrect personal data about you is corrected/rectified

receive a copy of your personal data (data portability), and

send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

## What gives us the right to process your personal data?

We will process your personal data based on your consent

## Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

- The University of Stavanger via Maryam Naeem and Torill Irene Hestetræet
- NSD The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Yours sincerely, Student Maryam Naeem

# **Appendix D: Consent Form**

I have received and understood information about the project "developmental benefits of bilingual children" and have been given the opportunity to ask questions. I give consent:

□ to participate in (interview)

I give consent for my personal data to be processed until the end date of the project, approx. 30-05-21

(Signed by participant, date)

# Appendix E: Approval from the Norwegian Centre for Research Data

# NORSK SENTER FOR FORSKNINGSDATA

#### NSD's assessment

#### **Project title**

developmental benefits of bilingual children

#### **Reference number**

606625

#### Registered

24.03.2021 av Maryam Naeem - M.Naeem@stud.uis.no

#### Data controller (institution responsible for the project)

Universitetet i Stavanger / Fakultet for utdanningsvitenskap og humaniora / Institutt for kultur- og språkvitenskap

#### Project leader (academic employee/supervisor or PhD candidate)

Torill Irene Hesteræet, torill.hestetreet@uis.no, tlf: 51831358

#### Type of project

Student project, Bachelor's thesis

#### Contact information, student

Maryam Naeem, maryam.naeem26@yahoo.com, tlf: 41354942

#### **Project period**

01.04.2021 - 30.04.2021

#### Status

26.05.2021 - Assessed

#### Assessment (3)

#### 26.05.2021 - Assessed

NSD has assessed the change registered on 26.05.2021.

The research period has been extended until 30.05.2021.

Please note that in case of further extensions, it may be necessary to inform the sample.

NSD will follow up the progress of the project at the new planned end date in order to determine whether the processing of personal data has been concluded.