



The relationship between first and second language skills of Turkish immigrant children in the Netherlands

Aslı Koçak

Master thesis in the Master Track 'Management of Cultural Diversity' School of Humanities

Supervisor: Prof. dr. Kutlay Yağmur

Second Reader: Dr. Massimiliano Spotti

MASTER THESIS MANAGEMENT OF CULTURAL DIVERSITY

Name student: Aslı Koçak

ANR: 800603

Telephone:

Email:

Supervisor: Prof. dr. Kutlay Yağmur

Second reader: Dr. Massimiliano Spotti

Title of the thesis: The relationship between first and second language skills of Turkish immigrant children

Abstract

This research investigates the claimed link between first and second language skills of Turkish immigrant children. A large number of studies documented the gap in Dutch language skills between native Dutch speakers and Turkish immigrant children. Based mostly on large scale quantitative studies, researchers have shown that regarding language development, there is a gap of at least two years between native Dutch and Turkish immigrant children (Driessen et al. 2002). Even though, some researchers claim a strong correlation between first and second language skills of immigrant children, empirical evidence in the Dutch context is limited. By using international programs, PIRLS & PISA, testing the reading proficiency of 4th and 9th grade Turkish immigrant children, the link between Turkish and Dutch reading proficiencies is examined. The linguistic interdependence hypothesis of Jim Cummins (1979) is for the first time tested in the Netherlands in two different age groups. This research supports Cummins' hypothesis, that the level of the second language competence of a bilingual child is indeed partially a function of the type of competence the child has already developed in the first language. This research also concludes that the competences in the first and second languages are for the 9th grade Turkish immigrant children more comparable than for the 4th grade Turkish immigrant children.

Keywords: Interdependence theory, reading proficiency, first and second language interaction, threshold hypothesis, Turkish third generation immigrants, PIRLS, PISA

PREFACE

After I finished my Bachelor in Marketing, I realized that the world is not only about making profit. Especially in the Netherlands, where different cultures are living together, there is a big challenge on how to live, share, and create a future all together. This made me interested in the master track Management of Cultural Diversity at the University of Tilburg. Looking back at the last two years, I can say that in terms of knowledge and personal growth, I made a huge development.

During the premaster course Multilingualism in Education, I met Prof. dr. Kutlay Yağmur, professor of Language, Identity & Education. During his lectures, I recognized myself in the problems and challenges immigrant minority children are dealing with. Both my parents were born in Turkey. My father was two years old when he came to the Netherlands, so his Dutch is as good as a native speaker. I was born in the Netherlands and my first language is Turkish. My parents were always told by my teachers to talk in Dutch with me, because speaking in Turkish with me would affect my Dutch language development negatively. We were living with my grandparents, who did not speak Dutch, so the main language spoken at home was still Turkish. During my school career, I had some challenges. I literally had to climb up. Four years VMBO, two years HAVO, four years a bachelor track at an Applied Science University, premaster during the last year of my bachelor track and now I am finishing my master track. After immersing myself in this topic, I realized that the first and second language acquisition are an important part of the challenges I had to deal with during this process. Because I am directly involved in this subject, I wanted to get insight in the facts and fables about having a minority language as your first language, especially for Turkish immigrant children in the Netherlands.

The last five months I met a lot of Turkish institutions who helped me in carrying out my research. I would like to thank them all for their support, especially OKUL Eindhoven, Bediuzzaman Said Nursi Cultuurstichting Eindhoven, Türkçe Dersi Uden, Türkçe Dersi Veghel and Türkçe Dersi Utrecht. I want to thank the parents, especially the mothers who trusted me and helped me with reaching more children. Their interest and attention for this subject kept me motivated.

I want to thank my supervisor Prof. dr. Kutlay Yağmur for guiding me through this process. His knowledge and experiences gave me new perspectives and helped me along the way. I also want to thank my second reader Massimiliano Spotti for giving me critical feedback. And last but not least, I want to thank my family and friends. Without their help and support I could not realise this research.

I hope that this thesis provides useful insights for others and will contribute to a better educational environment for immigrant children.

Aslı Koçak,

Eindhoven, August 2016

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION	5
CHAPTER 2. EXISTING RESEARCH ON THE EFFECTS OF BILINGUALISM	7
CHAPTER 3. LANGUAGE DEVELOPMENT IN BILINGUAL ENVIRONMENTS ..	10
3.1 Research questions and hypotheses.....	12
CHAPTER 4. METHODOLOGY	13
4.1 Participants	14
4.2 Measures.....	15
4.3 Procedure.....	16
4.4 Research quality indicators.....	17
4.5 Additional information on the informants	18
CHAPTER 5. RESULTS	21
5.1 Closed questions analysis.....	21
5.2 Open questions analysis	27
5.2.1 Higher order thinking skills	29
5.2.2 PIRLS test	30
5.2.3 PISA test.....	34
5.2.4 Reflections.....	36
CHAPTER 6. DISCUSSION & CONCLUSIONS	37
6.1 Conclusion.....	40
6.2 Limitations.....	40
6.3 Further research.....	40
REFERENCES	41
APPENDIX	45
Appendix 1: Survey.....	45
Appendix 2: PIRLS test.....	51
Appendix 2: PISA test.....	63

CHAPTER 1. INTRODUCTION

Individual bilingualism or plurilingualism is mostly seen as an asset across the globe. However, bilingualism in a less prestigious immigrant language and a majority language is not always valued. Till 2004, major immigrant languages were offered as part of home language instruction in primary schools in the Netherlands. In secondary schools, few immigrant languages have the status of a foreign language. In 2004 the education of migrant languages (Onderwijs Allochtone Levende Talen) were abolished nationwide. The Dutch government decided to focus more on Dutch as a second language and argued that it is the immigrants' own responsibility to teach their children in their first language (L1). After this, no more structural initiatives were taken to valorise the immigrant minority languages. On the contrary, when talking about the languages of ethnic minorities, it is often associated with a deficit. Immigrant minority children and their native languages are rarely seen as enrichment of multilingualism, but more often as a cause of delays in Dutch language acquisition. Because these children speak an additional language to Dutch, it seems like they have no advantage, but rather a lack of cultural baggage. Nowadays only the English language is recognized and appreciated as an economic value for the Netherlands. But English is not the only language with an economic value. Various studies demonstrate that migration languages do also have an economic value. Immigrants and their children who master their native language have a better position in the labour market than those who forget their mother tongue.

Bilingual education is not only an economic and scientific matter. Bilingual education is also a political issue. Learning and teaching of immigrant minority languages versus host languages in West European countries is a very complicated issue. In the first place, policies and regulations concerning immigrant language teaching have changed constantly over the years. Secondly, there is no consensus over the teaching practices for these languages in the European Union countries. Ambivalent and inconsistent practice underlies immigrant language teaching. According to Extra & Gorter (2001), the learning and certainly the teaching of immigrant minority languages are often seen as obstacles to integration by speakers of dominant languages and by policy makers. At the European level, guidelines and directives regarding immigrant languages are rather scant and outdated. Moreover, only the problems are discussed, there is too little attention for the causes that lead to these problems.

Immigrants with a Turkish background are the largest non-Western group in the Netherlands. Although they are the largest group and they have been living in the Netherlands for more than 50 years, Turkish immigrants are still shown to have integration problems (Yağmur & van de Vijver, 2011). Integrating into either a social or educational system is more than learning the mainstream language, it is also about social and psychological adaptation and changes in beliefs, attitudes, values and behaviours. Policy makers claim that immigrant Turkish children perform poorly at school because of their native language spoken at home, being unaware of the fact that the level of proficiency in the first language affects the level of proficiency in the second language. It is also claimed that inaccurate assessment practices at schools cause wrong placement of children mostly into lower streams. As some

immigrant children perform low in the mainstream language tests, they are placed in special schools (Nap-Kolhoff et al., 2008). The relationship between the level of proficiency achieved in a first and a second language has been ignored by policy makers. There is also very limited number of research studies investigating the claimed relationship. In this research, which has been conducted together with Adnan Iskenderkaptanoğlu, the reading proficiency in L1 (Turkish) and L2 (Dutch) language of bilingual children with Turkish background is the subject of this study. The aim of this study is to investigate the relationship between language proficiencies of Turkish bilinguals in Dutch and Turkish by using standardized exams of international PISA and PIRLS programs. Earlier research by Verhoeven (1994) found a positive evidence for the interdependence in bilingual development of 98 six years-old Turkish children. Since that time, no other studies looked into the relationship between first and second language skills of immigrant children. For the first time in the Netherlands, both the Turkish and Dutch language skills of third-generation Turkish immigrant children are compared within two different age groups. The following main research question is formulated: *To what extent is there a relationship between L1 and L2 language skills development of Turkish-Dutch immigrant children in the 4th class and 9th class?*

CHAPTER 2. EXISTING RESEARCH ON THE EFFECTS OF BILINGUALISM

In line with Cummins (1979) hypothesis, Yağmur & Konak (2009) suggest that threshold hypothesis is one of the focal points for studying the cognitive effects of bilingualism. For children's academic achievement, cognitive development is essential. For bilingual children every threshold level has different consequences. For not experiencing negative results of bilingualism, the child is expected to reach the first threshold level. Once the children reach second threshold level, they can attain the cognitive benefits of bilingualism. Related to the language competence, bilinguals may be dominant in both languages, or may be less competent in either of the languages. While acquiring second language, the children start losing proficiency/fluency in their first language which is called subtractive bilingualism. Subtractive bilingual environment negatively affects children's cognitive and academic development.

According to Verhoeven (2000), a higher level of development in the first language parallels a higher level of development in the second language. This interdependency positively influences the level achieved in Dutch. Turkish immigrant children achieve less compared to native Dutch children because their first language development is delayed. By examining the first language skills of immigrant children, the actual causes of lower school achievement and delays in second language acquisition might be more accurately established. Akoğlu & Yağmur (2016) have shown in their study that Turkish immigrant children lag behind in their first language skills. Mothers' education level turns out to be the most important factor in explaining the performance differences of immigrant children.

Furthermore, Verhoeven (2007) states that many minority children are fully exposed to the mainstream language to have a high level of competence in it and little importance is given to their first language. As it is mentioned in various studies (Limbird et al., 2013; Kroll et al., 2015; Verhoeven, 2007; Lowry, 2011), monolinguals and bilinguals pass through similar developmental processes. The major difference is that monolinguals are exposed to single language input and bilinguals are exposed to two different language inputs. The language acquisition of minority group children is called emergent bilingualism as they learn the first language from the language input at home and second language input from the social settings and the school. Although children pass through the same developmental stages as monolinguals, they can take their first language as moving point and be dependent on their first language.

Moreover, to what extent the children are exposed to the language determines the level of language loss in L1 and also the level of interaction between L1 and L2. Kroll et al. (2015) point out that if there is lack of exposure to the first language, language attrition occurs. This attrition typically occurs in bilinguals who have little contact with L1 speakers or the bilinguals who have negative attitude towards their L1. There is a remarkable level of plasticity between the two languages of the bilinguals with the evidence that both of the languages work in a single language system with different levels of language use. The interaction of the two languages make cognitive systems and neural mechanisms more activated and also this interaction puts demand on them. These interactions can result in both

languages functioning fluently or code switching between the languages may take place. Moreover, the studies on interdependency hypothesis have indicated that a competent level of Turkish had positive effects on the development of Dutch as L2. Cognitive quality of L1 given at home is a determining factor for the quality of acquisition of L2. Turkish immigrants' school achievement is reported to be lower in comparison with their peers which means they need to be supported for both L1 and L2.

Linguistic differences in bilinguals compared to monolingual children have an effect on their emerging literacy. Limbird et al. (2013) state that bilingual children develop their reading comprehension skills differently than their monolingual peers. Although similar base components play a role in learning to read for both bilingual and monolingual children, the components manifest themselves differently for the two groups (Schwartz, 2014).

In a study conducted by Duursma et al (2007) it is mentioned that reading achievement is closely related to vocabulary knowledge. Successful reading comprehension depends on the amount of known vocabulary in the text, its importance to the overall meaning, past knowledge, and density of the passage. Although research on the connection between vocabulary and reading comprehension among second language (L2) readers has been limited, there is no indication that the frequently replicated links between vocabulary and reading achievement among first language (L1) speakers are not also relevant to L2 reading. In understanding the reading development of bilingual children, then, a key question is what predicts vocabulary, both in the L1 and the L2. Regarding language use of Turkish immigrant children, Leseman (2000) maintains that language and cognitive development are closely related. Vocabulary growth in the second language would depend upon general cognitive ability. Turkish children's first language development was hindered by the integration to second language context which results in subtractive bilingualism. There has been concrete evidence that the cognitive quality of home language is significant for positive transfer. It is also seen that the role of Turkish families in teaching home language to their children is not effective enough. The frequency of high-level language use was overall very low in the Turkish families which means the role of family against subtractive bilingual environment is rather limited.

Most of the educational experts and researchers blame multilingualism of immigrant children for lower school achievement. International literature on school achievement shows that there are multiple factors that account for school success (e.g. Cummins 2014). The school's language policy, the structure of curriculum, the teachers' qualifications and experience with language minority children and parental factors account especially for bilingual children's school achievement. Whether the school has a bilingual approach or a submersion approach would make a huge difference in the language development of minority children. Submersion is the most common educational approach in the German school system. Bilingual education as a form of coordinated language teaching and learning has seldom been regarded as necessary (Luchtenberg 2002).

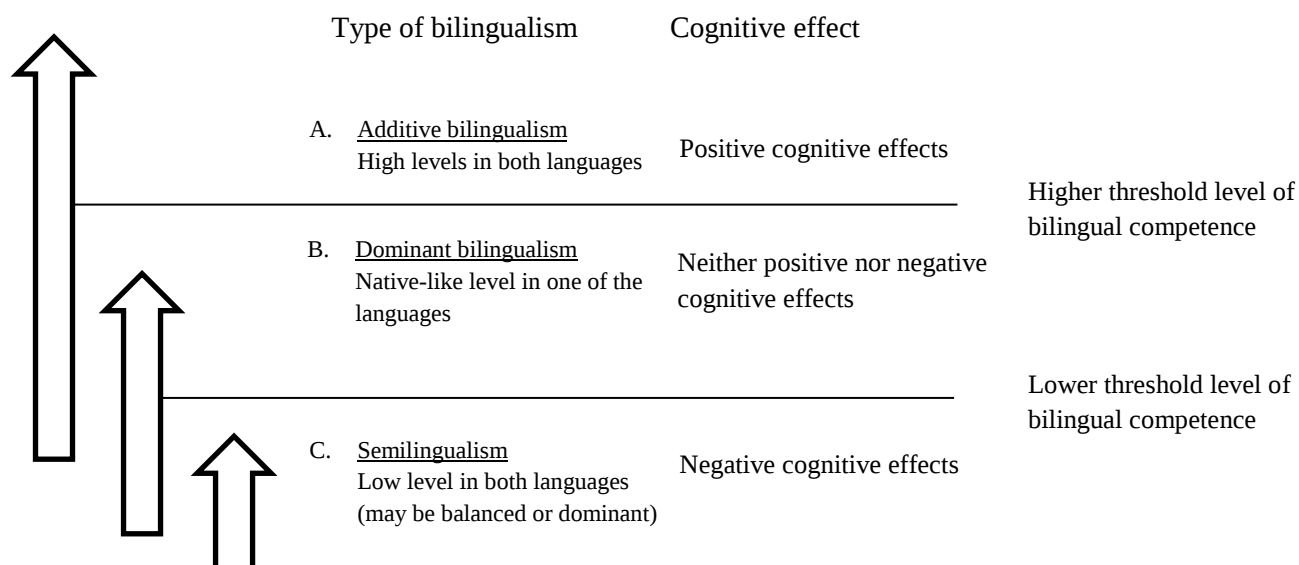
Multiple studies have investigated the difference between language competence and language performance. Chomsky (1986) started this discussion by describing competence as the

linguistic capacity and ability to create and understand sentences and performance as the linguistic output and production of specific utterances. Competence and performance are closely related to each other and in practice it is difficult to distinguish one from another. For this study, the distinction between competence and performance is not taken into account. The focus of this study are the general reading proficiencies of the children.

CHAPTER 3. LANGUAGE DEVELOPMENT IN BILINGUAL ENVIRONMENTS

Research have shown that Turkish immigrant children in primary schools lag behind their native Dutch peers in achievement (Dagevos, Gijsberts, & van Praag, 2003; Tesser & Iedema, 2001). Underachievement in the area of Dutch language has been documented for a relatively large proportion (35–40% which means about 15,000 pupils) of Turkish children going to primary school (Mulder, Roeleveld, van der Veen, & Vierke, 2005; Onderwijsraad, 2007). In the Netherlands, submersion program is the educational approach most commonly used. Submersion programs do only provide instruction in a second language, which is often the majority language of the society. The aim of submersion programs is to develop proficiency exclusively in the language of instruction, the second language. There is almost no support available to help students understand instruction or express themselves through either first language or second language. Submersion programs are also called sink-or-swim programs. In contrary, immersion program is a form of teaching in which bilingual education is stimulated. This program aims to develop proficiency in both the first and the second language. Introduction in the first language is an important part of this program. Looking at the differences in practice between these two programs, in immersion programs, it is the success of the children what is communicated by the school to the children, whereas in submersion programs the failure of these children takes precedence. Cummins (1979) explains the relationship between the first and the second language on the basis of the developmental interdependence hypothesis. This hypothesis proposes that the level of the second language competence of a bilingual child is partially a function of the type of competence the child has already developed in the first language. When the first language of a child is highly developed, this will result in reaching a similar competence level in the second language. According to this hypothesis, there is an interaction between the language of instruction at school and the type of competence the child has developed in his or her first language at home. It is commonly accepted that cognitive development is essential for academic achievement. The relationship between language development and cognitive growth has certain implications for bilingual children's school achievement. Cummins proposed that (1977: 10) "there may be a threshold level of linguistic competence which a bilingual child must attain both in order to avoid cognitive deficits and allow the potentially beneficial aspects of becoming bilingual to influence his cognitive growth." A threshold explains the difference between a balanced bilingual and a dominant bilingual. Each threshold is a level of language competence that has consequences for a bilingual child. In order to avoid the negative consequences of bilingualism, the child has to reach the first threshold in his both languages. If the child reaches the second threshold, he or she will be able to obtain cognitive benefits from bilingualism.

Figure 1: Cognitive effects of bilingualism



Differences between the achievement of children in partial and total immersion programs (Swain, 1978) can also be interpreted in terms of the threshold hypothesis. Total immersion refers to the ability of a child to quickly attain a level of functional competence which improves the development of the first language. It also allows the child to benefit optimally from interaction with the school environment. With partial immersion, a child is less likely to experience improvement of cognitive or academic skills (Cummins, 1979). In connection with the threshold model, total immersion children can be placed in the category additive bilingualism and partial immersion children can be placed in the category dominant bilingualism.

Regarding the language acquisition of immigrant children, Extra & Verhoeven (1999) emphasize that in the course of acquisition, social and political factors such as generation, level of communication with the speakers of the languages and educational policy play important roles together with psycholinguistic factors. Until the age of five, heritage language of Turkish immigrant children seems to be at similar levels, in comparison with their monolingual peers in Turkey. Whereas after starting primary school, their first language dominance decreases. This suggests that certain linguistic functions emerging in the later stages of language development may never be acquired in this specific situation. Therefore, when looking at Turkish in the Netherlands from a language attrition perspective, inadequate and incomplete transmission of the language between the generations can account for the differences.

In parallel with children's language development assumptions, Leyendeckera et al. (2011) point out that children's early cognitive development reflects the proximal environment in which they are raised. The interactions with people close to them, such as

parents, siblings, peers and particularly mothers as the primary caretakers, as well as the type of activities children take part in, provide the essential stimulation for their development. For instance, the Turkish-German children in the study showed lower scores on the cognitive tasks that measure memory, strategies, categorization and body-related vocabulary skills when compared to their German peers. These are in line with previous studies (Hochschild & Cropper, 2010; Duursma et al., 2007; Leyendeckera et al., 2011) comparing the skills of majority children and Turkish immigrant children in Europe.

Regarding academic achievement, students from low-socio-economic status (SES) backgrounds, immigrant-background students whose L1 is different from the language of school instruction, and students from communities that are excluded from educational and social opportunities are seen as disadvantaged (e.g., DeVillar, Jiang, & Cummins, 2013; OECD, 2010). But actually these specified groups turned into being educational disadvantaged only when the school fails to respond appropriately to these background experiences.

It is generally accepted that if there is a good basis in the first language, the skills in the second language would be better (Cummins, 1979). In this respect, if first language development of immigrant children is sufficient then the second language learning would be smoother and as a consequence, school achievements of immigrant children in European countries would not be affected.

3.1 Research questions and hypotheses

In line with Cummins theory of interdependence, the following sub-questions are formulated.

1. Is there a link between first and second language reading proficiencies of Turkish immigrant children?
2. Is there a correlation between language proficiency of children and their language use-choice patterns?
3. What is the role of socio-economic status (SES) factors in explaining the reading proficiency differences of bilingual children?
4. Do the levels achieved in the first language predict second language skills?
5. Are the informants in both age groups able to demonstrate higher order thinking skills in both languages?
6. Is there a link between acculturation orientations and Dutch language proficiency of Turkish immigrant children?

According to these questions, the following hypotheses are going to be tested:

1. The students with a higher competence in the first language have also higher competence in the second language.
2. Children who cannot demonstrate group average skills will have lower levels in higher order thinking skills.

CHAPTER 4. METHODOLOGY

A quantitative approach is used in this research. By using internationally tested and standardized reading proficiency tests, data is collected from Turkish immigrant children in the Netherlands. A bilingual reading test is used with 10 and 15 years-old children.

The research is conducted with Turkish immigrant children going to the 4th class of the primary school (10 years-olds) and 2nd year of the secondary school (15 years-olds) in the Netherlands. This will help in comparing children in different phases of their education. For the sample, 116 4th grade children from the primary school and 122 2nd grade children from the secondary school are selected in a purposive sampling approach. The criterion for the selection of the children was having Turkish as the first language. Background factors of all informants are matched. This will be further discussed in the next chapter: Analysis.

Assessment is one of the most crucial processes in education. It is only through assessment that it can be found out whether targeted linguistic skills are acquired or not. Progress in International Reading Literacy Study (PIRLS) (include reference) and Programme for International Student Assessment (PISA) tests (include reference) are used as instruments, because they are internationally proven to be highly reliable and valid. As Levin & Shohamy (2008) suggest for achievement levels of immigrants, using specific tests in various contexts helps us understand children's weak and strong points and also helps curriculum planners to structure more appropriate programs for immigrant bilinguals.

PIRLS is an international comparative study of achievement, which evaluates reading skills of primary school children. The PIRLS assessment is composed of two different aims: reading purpose and comprehension process. Reading purpose explains the reason why readers read a text. It can be for literary purpose or to use and get some information. Comprehension processes explain how readers process what they read. PIRLS measures four comprehension processes: concentrating and getting clearly stated information; making direct deductions; interpreting and integrating ideas and information; and, examining and evaluating content, language and textual elements (Eivers & Clarkin, 2012). Since 2001, PIRLS has been administered every 5 years. PIRLS documents worldwide trends in the reading knowledge of 4th-graders as well as school and teacher practices related to instruction. The first administration of PIRLS in 2001 included 36 education systems (including countries and subnational entities, such as Canadian provinces and Hong Kong, a Special Administrative Region of the People's Republic of China). It was followed five years later by the second administration in 2006, which included students in 45 education systems. The 2011 administration of PIRLS included 53 education systems participating at grade 4. For the fourth administration in 2016, 54 education systems, including the United States will take part in the 2016 PIRLS cycle.

PISA is an international assessment that measures 15-year-old students' reading, mathematics, and science literacy every three years and is focusing on the capacity of a specific group of children. PISA also includes measures of general or cross-curricular

competencies, such as collaborative problem solving. Those children are in the last years of their compulsory education and they are supposed to use the skills they have developed throughout their education. Analyses of children's social backgrounds and their performances on the PISA measures, have shown that some countries achieve both high quality and high equity together (McGaw, 2008). By design, PISA emphasizes functional skills that students have acquired as they near the end of compulsory schooling. PISA is coordinated by the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of industrialized countries, and is conducted in the United States by NCES. Data collection for the most recent assessment was completed in Fall 2015.

Besides the PIRLS and PISA tests, we also have conducted a survey with questions about Dutch and Turkish language use and identity orientation. This survey is going to help in analysing the results of the PIRLS and PISA tests.

4.1 Participants

The total sample comprised of 238 participants (109 male and 129 female). These participants included students from the 4th grade and the 9th grade. 116 of the total participants are from the 4th grade and 122 participants of them are from the 9th grade. In table 1 it is shown that for the 4th grade PIRLS group the average age is 10 years and 8 months. From the 116 participants, 110 were born in the Netherlands, and 6 of them were born in Turkey (table 2). About 78% of the parents of this group, were born in Turkey. For the 9th grade PISA group it can be seen in table 3 that the average age is 15 years and 1 month. From the 122 participants, 116 were born in the Netherlands, three in Turkey and 3 in another country (table 4). These other countries are European countries such as France. About 84% of the parents were born in Turkey.

Table 1: Mean age and gender distribution of informants PIRLS (N=116)

Gender	N	Mean	Std. Dev.	Minimum Age	Maximum Age
Female	67	10.86	.935	9.03	12.11
Male	49	10.88	.875	9.04	12.10
Total	116	10.87	.906	9.03	12.11

Table 2: Birth-country distribution of the informants and their parents PIRLS (N=116)

Birth Country	Informant	Mother	Father
Turkey	6	85	98
Netherlands	110	27	14
Other	-	3	2
Missing	-	1	1
Total	116	116	116

Table 3: Mean age and gender distribution of informants PISA (N=122)

Gender	N	Mean	Std. Dev.	Minimum age	Maximum age
Female	62	15.14	1.02	13.11	17.10
Male	60	15.11	.96	14.01	17.09
Total	122	15.12	.98	13.11	17.10

Table 4: Birth-country distribution of the informants and their parents PISA (N=122)

Birth Country	Informant	Mother	Father
Turkey	3	96	107
Netherlands	116	18	14
Other	3	7	1
Missing	-	1	-
Total	122	122	122

4.2 Measures

Beside the PIRLS and PISA reading tests, for this research also a survey has been conducted. The outcomes of the survey in combination with the results of the tests provide interesting insights. The survey consists of nine scales: 1. Belong to Turkish and Dutch culture 2. Feeling Turkish 3. Feeling Dutch 4. Immigrants in the Netherlands 5. Immigrants in Public, Work and School 6. Immigrants' Home Environment 7. Language Use 8. Language Choice and 9. Language preferences. All the answers to the survey were given on the basis of a 5-point response format ranging from strongly disagree (1) to strongly agree (5). The actual survey can be found in Appendix 1.

Belonging to Turkish and Dutch culture was measured with 2 questions designed to get insight in the extent to which the students feel and recognize themselves as Turkish, Dutch or both.

The Feeling Turkish scale consists of 10 questions designed to get insight in why they feel or they do not feel Turkish. An example of a question part of this scale is: *I feel Turkish because I live according to the Turkish norms and values.*

The Feeling Dutch scale consist of 8 questions. Example question of this scale is: *I feel Dutch because I can speak Dutch.*

The Immigrants in the Netherlands scale consist of 6 questions designed to get insight in the ideas the students have about immigrants in the Netherlands. An example question of this scale is: *Immigrants in the Netherlands have to talk Dutch.* Score 1 (strongly disagree) can be interpreted as being against the imposition of Dutch only in all domains of social life and score 5 (strongly agree) can be interpreted as being more in favour of speaking only Dutch in the Netherlands.

The Immigrants in Public, Work and School scale consists of 5 question, which are designed to get insight in the ideas the students have about immigrants in the Netherlands, but this time more focused on public, work and school situations. An example question of this scale is: *Immigrants are allowed to talk in their own language in public, work and school.*

The Immigrants' Home language scale, consists of 4 questions. An example question of this scale is: *Immigrants have to talk in Dutch in their homes as well.* Score 1 (strongly disagree) means being more Turkish oriented and score 5 (strongly agree) means being more Dutch oriented.

The Language Use scale consists of 8 questions designed to get insight in the language use patterns of the students. The questions are about which language they speak with their parents, siblings, friends, on social media and with people at the mosque. The Language choice scale consists of 8 questions about in which language they think, dream, calculate, read, watch television, listen to radio and write. The last scale, Language Attitudes, consists of questions about what they think about the Dutch and Turkish languages, if it sounds nice, friendly, dignified, polite, cosy or modern to them.

The last part of the survey consists of personal information about the participant. This part consists of questions about gender, age, date of birth, birth country of the respondent and the parents of the respondents, profession of the parents, place of residence, education level, frequency of visits to Turkey, how many hours Turkish lectures they get, where they get these lectures, if they are reading Turkish books with their parents and how many Turkish books they have at home.

4.3 Procedure

To be able to find participants for this research, primary and secondary schools were approached. This was not an easy process, since a lot of schools did not want to participate in (scientific) research. Besides schools, mosques and Turkish organizations were consulted. Students from different cities are included in the research. We have participants from Eindhoven, Helmond, Veghel, Tilburg and Utrecht. For the PIRLS students we had to ask the permission of the parents. Not all of the parents wanted their child to participate, even though it was clearly stated that the data would remain anonymous, some parents were still scared. For some of the parents the Turkish language competence of their child was a sensitive topic.

All texts and questions of the tests were prepared in both Turkish and Dutch. Also the survey questions were prepared in both Turkish and Dutch, but all students preferred to fill in the Dutch version of the survey. The tests and survey were both on paper. For PIRLS, it took between 60 and 90 minutes to finish the Turkish version and between 30 and 50 minutes for the Dutch version. For PISA, it took between 40 and 60 minutes to finish the Turkish version and between 20 and 40 minutes for the Dutch version. And for the survey it took 10 – 15 minutes to finish it.

4.4 Research quality indicators

In order to obtain valid and reliable results, appropriate instruments need to be used so that accurate assessments can be made. The reading tests used as part of PISA and PIRLS have been tested internationally and proven to be valid and reliable instruments. These tests are often used and have been tested before in many countries.

These tests are appropriate for the age group and are tested internationally with all student populations. According to the Cronbach Alpha values in tables 5 and 6 we can say that, based on the population targeted, this research is valid and reliable. If we look at table 5 for the PIRLS test, we can see that all the scales are reliable. Only language attitudes scale is compared to the other scales lower in Cronbach's Alpha, but it is still reliable. For PISA, table 6, we can see that these scores are comparable with the PIRLS scores. The main differences between the PIRLS and PISA scores are for the scales Turkish Orientation and Dutch Test. The reliability for the Turkish Orientation scale is for the PIRLS higher than for PISA. Also the Dutch Test score is for the PIRLS higher than for PISA. Although there are small differences, we can confidently talk about the generalizability of our findings.

Table 5: Reliability scores of the Scales in the Survey and the PIRLS Tests

Scale	No of Items	Mean Value	Cronbach's Alpha ∞
Feeling Turkish Scale	11	4.01	.801
Feeling Dutch Scale	9	2.48	.804
Dutch Integration Scale	8	2.62	.706
Turkish Orientation Scale	7	3.77	.736
Language Choice Scale	8	3.04	.783
Language Preference Scale	8	2.21	.831
Language Attitudes Scale	6	3.23	.696
Turkish Test	24	13.80	.846
Dutch Test	24	17.98	.827

Table 6: Reliability scores of the Scales in the survey and the PISA tests

Scale	No of Items	Mean Value	Cronbach's Alpha ∞
Feeling Turkish Scale	11	4.04	.819
Feeling Dutch Scale	9	2.22	.825
Dutch Integration Scale	8	2.70	.640
Turkish Orientation Scale	6	4.23	.522
Language Choice Scale	9	3.22	.712
Language Preference Scale	8	2.34	.843
Language Attitudes Scale	6	3.37	.723
Turkish Test	20	10.33	.701
Dutch Test	20	11.77	.638

4.5 Additional information on the informants

In the last part of the survey, we have asked the informants some background questions that we can use in explaining our results. These questions are the frequency of visits to Turkey, attendance of Turkish classes by the informants, places where Turkish classes are attended by the informants, students' frequency of reading Turkish books with parents, and the amount of Turkish books at their homes.

Table 7 shows how many times the informants are visiting their parental homeland. For both the PIRLS and PISA groups, the majority of the informants, around 70%, is visiting turkey at least once a year, which shows that even among the second- and thirdgeneration immigrants, contact with the homeland is intensive.

Table 7: The frequency of visits to Turkey

PIRLS students	N	%
More than once a year	12	10,3
Once a year	75	64,7
Twice a year	23	19,8
Three times a year	6	5,2
Total	116	100,0

PISA students	N	%
More than once a year	13	10,7
Once a year	75	61,5
Twice a year	30	24,6
Three times a year	4	3,3
Total	122	100

Table 8 shows when the informants are attending Turkish classes, how many hours per week they are attending. The biggest part of the group, for PIRLS 60% and for PISA 90% is not attending Turkish classes at all. And of the informants attending these classes, most of them receive 1-2 hours of instruction per week.

Table 8: Attending Turkish classes by the informants (N=116)

PIRLS	N	%
No turkish lesson	70	60,3
1-2 hours per week	38	32,8
3-4 hours per week	8	6,9
Total	116	100,0

PISA	N	%
No turkish lesson	110	90,2

1-2 hours per week	8	6,6
3-4 hours per week	4	3,3
Total	122	100

Table 9 shows where the Turkish classes are received. For PIRLS, most of the informants are taught at Turkish schools or Mosques. For PISA, most of the informants are taught at Mosques.

Table 9: Places where Turkish instruction is received by the informants (N=116)

PIRLS	N	%
Dutch school	11	9,5
Turkish school	23	19,8
Mosque	20	17,2
Missing	62	53,4
Total	116	100,0

PISA	N	%
Dutch school	2	1,6
Turkish school	2	1,6
Mosque	23	18,9
Missing	95	77,9
Total	122	100

Table 10 shows if the informants are reading Turkish books with their parents or not. For the PIRLS informants, 45% is reading Turkish books with their parents. For the PISA informants, only 21% is reading Turkish books with their parents.

Table 10: Students' frequency of reading Turkish books with parents

PIRLS	N	%
Yes	52	44,8
No	64	55,2
Total	116	100,0

PISA	N	%
Yes	25	20,5
No	96	78,7
Missing	1	.8
Total	122	100

Table 11 shows the amount of Turkish books the informants have at their homes. For both the PIRLS and PISA informants, the biggest part has between 1 and 10 books at their homes.

Table 11: Number of Turkish books at home (N=116)

PIRLS	N	%
None	9	7,8
Between 1-10	55	47,4
Between 11-20	44	37,9
More than 20	6	5,2
Missing	2	1,7
Total	114	98,3

PISA	N	%
None	15	12,3
Between 1-10	55	45,1
Between 11-20	34	27,9
More than 20	17	13,9
Missing	1	.8
Total	122	100

We can conclude that the informants keep close contact with their parental homeland. We can also see that the older the informants get; the less attention paid by the parents to the Turkish language. We see a decline in the attended Turkish classes and also in the frequency of reading Turkish books with parents. This can be explained of course by the informants getting more mature and independent. What we could ask the participants is if they are reading Turkish books alone and how often they listen or watch Turkish music and television to get insight in their habits.

CHAPTER 5. RESULTS

5.1 Closed questions analysis

To be able to analyze the results we have used the program Statistical Package for the Social Sciences (SPSS), version 22. In this section the research questions that were compiled based on the literature will be answered.

In line with Cummins' interdependence hypothesis, the first research question was about the relationship between first and second language skills of immigrant children. In order to answer the first question, reading skills of Turkish immigrant children in Dutch and Turkish were tested. They were given the same PIRLS and PISA texts in Turkish and in Dutch. As seen in Table 13, in the case of PIRLS, Turkish immigrant children received much higher scores on the Dutch test than the Turkish test. In the case of PISA, this difference between the Turkish and Dutch score is much smaller. Besides, there is an exceptionally high and significant correlation between Turkish and Dutch reading skills of informants.

Table 13: The relationship between first and second language reading proficiencies of Turkish immigrant children (N=116)

Reading Score PIRLS	Mean	Std. Dev.	Pearson correlation	Significance
Turkish total score	13.80	6.64	.644**	.000
Dutch total score	17.98	6.19		

Reading Score PISA	Mean	Std. Dev.	Pearson correlation	Significance
Turkish score	10.33	3.56	.521**	.000
Dutch score	11.70	3.15		

We can see a consistent relationship between the two tests. Those students who scored high in Turkish also scored very high in Dutch. Whereas the students who scored low in Turkish mostly also scored lower in Dutch. The scores presented in Table 14 are based on the mean values for each test. In order to examine the differences more closely, a percentiles analysis for both tests was conducted. As seen in Table 14, Turkish scores are much lower compared to Dutch scores in the lower percentiles. For instance, in the case of PIRLS, the lowest 10% of the population on the Turkish test had an average of 4 points while in the Dutch test this was an average of 10 points, which shows that those students, who score low in Dutch test, score much lower in the Turkish test.

Table 14: Percentiles in Turkish and Dutch tests (N=116)

Percentiles	Average Score Turkish PIRLS	Average Score Dutch PIRLS
Bottom 10%	4	10
Next 25%	8	13
Average 50%	14	18
Upper 75%	18	23

Top 90%	24	26
---------	----	----

Percentiles	Average Score Turkish PISA	Average Score Dutch PISA
Bottom 10%	5	7
Next 25%	8	10
Average 50%	10,5	12
Upper 75%	13	14
Top 90%	15	16

What we can see in table 4 is that when the student is poor in Turkish, the student is also poor in Dutch. However, it is important to notice that Turkish is suffering the most. Looking at the top 90%, the Turkish and Dutch scores are much more comparable. Looking at the differences between PIRLS and PISA scores, we can see that the percentiles for PISA are very much related, which means the skills in Turkish and Dutch are highly comparable.

Table 15 for PIRLS shows that those students who have low skills in Turkish also have equally low skills in Dutch; in the same vein, those who have high skills in Dutch also have equally high levels in Turkish. There is a consistent pattern. Tables 14 and 15 show us that the scores of Turkish and Dutch tests are comparable so it can be concluded that there is a clear relationship between the first and second language skills of the informants.

Table 15: Distribution of levels in Dutch and Turkish (N=116)

Turkish Level	DUTCH LEVEL OF THE STUDENTS PIRLS						Total
	1	2	3	4	5	6	
1	6	1	2	1	2	0	12
2	6	8	4	0	0	0	18
3	1	6	11	9	3	0	30
4	1	2	8	12	9	2	34
5	0	0	5	3	4	1	13
6	0	0	0	2	2	5	9
Total	14	17	30	27	20	8	116

Turkish Level	DUTCH LEVEL OF THE STUDENTS PISA						Total
	1	2	3	4	5	6	
1	5	6	1	1	0	0	13
2	4	9	3	4	2	0	22
3	2	6	9	5	4	0	26
4	1	7	10	10	7	1	36
5	1	2	3	3	6	3	18
6	0	0	2	2	0	3	7
Total	13	30	28	25	19	7	122

The second research question was about if there is a correlation between language proficiency of children and their language use-choice patterns. To be able to answer this question, we have used both the test results from PIRLS and PISA and the survey, specifically the scale about language choice. As seen in Table 16, in the case of PIRLS, there is a very high correlation between Turkish and Dutch skills of the informants, but there is no significant correlation between language skills (neither Dutch nor Turkish) of informants and their language choice, preference and attitudes. However, there are significant correlations between language choice, preference and attitudes. This lack of correlation might most probably be due to many unaccounted factors. Informants might report that they choose to speak in Turkish with the mother but might speak in Dutch with the father depending on the birth-country of the parent. Choice might be affected by many different factors in the home context and it might not always account for the differences in proficiency levels. In the case of PISA, there is a significant correlation between language choice preference and language skills of the informants. These results are more comparable than in the case of PIRLS. Our second research question is only confirmed by our PISA findings that there is significant correlation between language choice-preference and language skills of informants.

Table 16: Correlations between Language choice, preference, attitudes and test scores

PIRLS	Turkish total score	Dutch total score	Language Choice Scale	Language Preference Scale	Language Attitudes Scale
Turkish total score	1				
Dutch total score	,644**	1			
Language Choice Scale	,059	-,111	1		
Language Preference Scale	,153	-,070	,634**	1	
Language Attitudes Scale	-,062	,028	,383**	,351**	1

PISA	Turkish score	Dutch score	Language Choice Scale	Language Preference Scale	Language Attitudes Scale
Turkish score	1				
Dutch score	.521**	1			
Language Choice Scale	.150	.060	1		
Language Preference	.323**	.142	.602**	1	

Scale					
Language Attitudes Scale	.158	.075	.260**	.324**	1

The third research question is about the role of socio-economic status (SES) factors in explaining the reading proficiency differences of bilingual children. For this question, we have used the survey question which asked the informants about the profession of their parents. We have categorized the professions as low, average and high. Many of the informants have left this question blank. Possible explanation for this might be that they simply do not know the profession of their parents or that the parents are unemployed. Table 17 shows the relationship between socio-economic status of the parents and the language skills of the children. There seems to be a relationship between socio-economic status of parents and language skills of the informants but this does not reach statistical significance. The results are not consistent. Intriguingly, the informants, who did not report parental occupation, have the lowest average in both the Turkish and Dutch scores. Those students who reported higher SES for parental occupation received the highest scores. However, we can see that in the case of the PISA results, for the DUTCH total score, there is a significant relationship between the SES level of the parents and the Dutch scores of the informants. But because there are no significant differences between the other groups and we have a big group with missing SES level, our third research question is not confirmed that parental SES does not explain the differences in reading scores.

Table 17: ANOVA (analysis of variance) results regarding the SES and language skills of children

PIRLS	SES Level	N	Mean	S. D.	F	P
Turkish total score	Missing	16	11,19	6,50	1,292	,281
	Low	70	14,26	5,90		
	Average	25	13,60	8,48		
	High	5	16,80	6,01		
Dutch total score	Missing	16	15,81	7,53	2,307	,081
	Low	70	17,53	5,52		
	Average	25	19,84	6,54		
	High	5	22,00	6,44		

PISA	SES Level	N	Mean	S. D.	F	P
Turkish total score	Missing	15	9.9	3.20	2.333	.078
	Low	76	10.3	3.44		
	Average	30	11.0	3.83		
Dutch total score	Missing	15	11.0	3.63	4.047	.009
	Low	76	11.4	2.83		
	Average	30	13.2	3.25		

The fourth research question is one of the most important ones regarding the interdependence hypothesis that levels achieved in the first language have an effect on the level achieved in the second language. Taking the Dutch score as dependent variable we carried out a Regression analysis and as seen in Table 18, the levels achieved in Turkish both for PIRLS and PISA significantly predicts the levels achieved in Dutch. So there is for both PIRLS and PISA a close relationship between the levels achieved in the first and second language. Even if the score for PISA is not as high as the score for PIRLS, they are both comparable. So our fourth research question is confirmed that there is a close relationship between the levels achieved in the first and second language.

Table 18: Regression analyses between Dutch and Turkish skills

PIRLS		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1		B	Std. Error	Beta		
	(Constant)	9,692	1,022		9,487	,000
	Turkish total score	,601	,067	,644***	8,999	,000

PISA		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1		B	Std. Error	Beta		
	(Constant)	7.013	.752		9.328	.000
	Turkish total score	.460	.069	.521	6.692	.000

The fifth research question is about the higher order thinking skills of the students in both languages. As discussed in detail by Baker (2006), academic skills in a language require much higher competence. A person can communicate in simple words, might have the native pronunciation, but unless the person has an adequate number of lexical items in his mental lexicon he would not be able to demonstrate higher order thinking skills. In order to see the difference a paired samples t-test was conducted between Dutch and Turkish reading scores of informants. As clearly seen from Table 19, students' higher order thinking skills in Dutch are significantly higher than their Turkish scores. The higher order thinking skills are analysed on the basis of the open questions in both the PIRLS and PISA tests.

Table 19: Paired samples t-test between Dutch and Turkish higher order thinking skills

Higher order thinking skills PIRLS	Mean	N	t	P
Dutch score	7,94	116	5.830	.000
Turkish score	5,94	116		

Higher order thinking skills PISA	Mean	N	t	P
Turkish score	1.78	122	-6,026	.000
Dutch score	2.44	122		

In order to assess the relationship between overall skills in reading and higher order thinking skills a correlation analysis was conducted, Table 20. In the case of PIRLS, we can see that there is a highly significant correlation between Turkish score and Turkish higher order thinking skills of students. There is also a highly significant correlation between Dutch score and Dutch higher order thinking skills. Those students who received high scores in Turkish test also had the highest scores in higher order thinking skills. In the case of PISA, we can see that there is a very high correlation between the Turkish score and Dutch higher order thinking skills of students. In a more interesting fashion, those students who had high skills in Turkish, also had very high Dutch higher order thinking skills, which in a way fully supports the interdependence hypothesis of Jim Cummins. We can conclude for this research question that both age groups are able to demonstrate higher order thinking skills in both languages.

Table 20: Correlation between Turkish-Dutch skills and higher order thinking skills (HOTS)

PIRLS	Turkish score	Dutch score	Dutch HOTS	Turkish HOTS
Turkish score	1			
Dutch score	,644**	1		
Dutch HOTS	,604**	,943**	1	
Turkish HOTS	,930**	,645**	,644**	1

PISA	Turkish score	Dutch score	Dutch HOTS	Turkish HOTS
Turkish score	1			
Dutch score	,521**	1		
Dutch HOTS	,805**	,471**	1	
Turkish HOTS	,476**	,725**	,504**	1

The sixth research question is about the acculturation orientations and language proficiency of the informants. Table 21 shows the correlations between these two.

Table 21: Correlations between acculturation orientations and language proficiency of informants

PIRLS	Turkish score	Dutch score	Dutch Integration	Turkish Orientation
Turkish score	1			
Dutch score	,644**	1		

Dutch Integration	-,190 [*]	-,320 ^{**}	1	
Turkish Orientation	,260 ^{**}	,483 ^{**}	-,381 ^{**}	1

PISA	Turkish score	Dutch score	Dutch Integration	Turkish Orientation
Turkish score	1			
Dutch score	.521 ^{**}	1		
Dutch Integration	.164	.004	1	
Turkish Orientation	-.149	-.102	-.352 ^{**}	1

What we can see here is that, in the case of PIRLS, there is a very interesting negative correlation between Dutch score and Dutch integration. This means that the lower the scores in Dutch, the lower the integration is. Also the higher the Turkish orientation, the higher the Dutch score is. This is really interesting. An example of a high Turkish orientation is that the informant is against banning immigrant language use in the Netherlands. It can be concluded that a high Dutch score does not negatively affect the identity of the informant. In the case of PISA, we can see a significant correlation between the Turkish score and the Dutch score. This simply means that the higher the Turkish score, the higher the Dutch is. There are for PISA no further significant correlations between the other scales.

The following table 22 is comparing the Turkish and Dutch skills of PIRLS and PISA students. Interestingly, there is almost no difference in overall competences of PIRLS and PISA students in Dutch tests. The difficulty level of these tests are different, but both tests are appropriate for the given age groups. There is however a very significant difference between Turkish skills of PIRLS and PISA students. One interpretation might be that as children get older their Turkish gets better as well.

Table 22: Cross-sectional ANOVA analysis between PIRLS AND PISA results

		N	Mean	F	P
Dutch score out of 100	PIRLS	116	58,003	.133	.715
	PISA	122	58,852		
Turkish score out of 100	PIRLS	116	44,522	7.871	.005
	PISA	122	51,680		

5.2 Open questions analysis

Most teachers still believe that speaking an immigrant language at home delays the acquisition of the national language and consequently integration into the mainstream society (Helot and Young, 2006). On the basis of a large scale LINEE project, Franceschini (2011) reports that many of the teachers in their research believe that using a home language other than the national language might be an impediment to the students' learning of the official language because the home language could confuse the learners. Franceschini points out the

most important problem by emphasizing the role of teachers in negatively influencing the parents. Most immigrant parents are misguided by teachers in schools by giving inaccurate information on the role of home languages in the learning of school languages. Parents are advised not to speak their native language with their children. This is unfounded and this inaccurate suggestion has serious cognitive and linguistic implications for the language development of immigrant children. If parents are not fully proficient in their L2 skills, they will communicate in a restricted code which would seriously hamper the level and quality of communication between parents and children. Through language, parents are able to train their children. They communicate their norms and values to their children. Most important of all, love and trust is communicated. If parents do not have full competence in the mainstream language, speaking only in L2 with their children would limit the whole communication process. Language skills and cognitive skills go hand in hand. If linguistic skills are not developed sufficiently, cognitive skills would be affected as well. In the case of most immigrant children, limited skills in their first language lead to lower skills in mainstream language skills as well (Cummins, 1979; Verhoeven, 1994). As research findings have shown there is a linguistic interdependency between first and second language skills (Bialystok, 2005; Scheele et al., 2010; Yagmur & Konak, 2011). Limited linguistic skills in one language lead to limited skills in the second language. If immigrant children's linguistic and cognitive skills are sufficiently developed in their first language, this will transfer to their second language skills. By limiting the use and acquisition of first language skills of immigrant children, schools and policy makers limit these children's mainstream skills.

For language acquisition of children, another significant issue is the quality and the quantity of given input. Pearson (2007) states that among all other factors that parents and community can manage is the quantity (and quality) of input given to children while learning the languages. Without meaningful input, learning does not take place (Krashen, 1985; Krashen & Terrell, 1983). If insufficient input is given, learning can take place, but children cannot reach the comfort level so as to use the language willingly and appropriately. A great amount of input means that the child is able to have more proficiency in the language and it opens space for more input. When children do not use their heritage language, then they are using a different language and thereby getting less input in the heritage language; they develop less proficiency, which leads to using it even less, and that in turn, leads to getting even less input in that language. The proficiency level of the child may change according to the age that she/he is first exposed to it. Greater proficiency means greater use of the language. After the threshold level, the amount of exposure does not matter. It is very widespread to be a bilingual and there are cognitive, social, and affective benefits of being bilingual. Rather than having subtractive bilinguals, having more additive bilinguals is aimed at in each country. Input, language status, access to literacy, family language use and community support, including schooling are key factors for raising successful bilinguals. Not only the quantity of input has a great effect on whether a minority language will be learned, but also language status and attitudes about language play a role (Pearson, 2007). As Schupbach (2009) states similarly, although there is not always a direct relationship between the amount of exposure to the language and amount of learning, quantity of input together

with attitudes, values and social circumstances make the difference between a successful bilingual or not.

5.2.1 Higher order thinking skills

While acquiring literacy skills, children also acquire new ways of thinking in a particular subject in different domains. After acquiring these thinking skills, they start to create their own specific world views. Besides all of these, children start to get an understanding of the genres, communication types, specialized forms of discourse including traditions, conventions and expectations.

Higher-order thinking skills contain two important dimensions: critical thinking and creative thinking. The former is mostly associated with higher-order thinking skills. It is about teaching students to become critical thinkers. The national council for excellence in Critical Thinking Instruction said in 1987 that critical thinking is self-guided, self-disciplined thinking which attempts to reason at the highest level of quality in a fair-minded way. People who think critically consistently attempt to live rationally, reasonably, empathically (Glaser, 1941). In this case, a difference can be made between an active learner and a passive learner. An active learner will not be satisfied ‘just by accepting’ the information. An active learner will start thinking critically and look for evidence to support the information. The latest form of higher-order thinking skills, creative thinking, is about creating new ideas. Bringing in something into existence that was not there before.

Table 12: Classification of thinking skills, Bloom’s Taxonomy (1956)

Higher order thinking skills	
Creating	Making, designing, constructing, planning, producing and inventing.
Evaluating	Checking, hypothesizing, experimenting, judging, testing and monitoring.
Analysing	Comparing, organizing, criticizing, outlining, finding, structuring and integrating.
Applying	Implementing, carrying out and using.
Understanding	Comparing, explaining, classifying, exemplifying and summarizing.
Remembering	Recognizing, listing, describing, identifying, retrieving, naming, finding and defining.
Lower order thinking skills	

In the first stage of higher order thinking skills, remembering, the student can recognize and recall relevant knowledge from long-term memory. In the stage understanding the student can construct meaning from oral, written and graphic messages. In the stage applying, the student can use information in a new way. In the stage analysing, the student can distinguish between parts, how they relate to each other, and to the overall structure and purpose. In the stage evaluating, the student can make judgments and justify decisions. In the last stage, creating, the student can put elements together to form a functional whole, create a new product or point of view. Regarding first and second language competence of immigrant children, these stages are often for both of the languages the same. The level achieved in the first language

affects the level of the second language. If the first language is not sufficiently developed, there are less number of cognitive concepts available to children. This accordingly has negative influences on the second language as well. Children with limited competence in one language cannot achieve the tasks involving higher order thinking skills.

5.2.2 PIRLS test

The PIRLS test we have used includes 2 texts. The first text is an African tale. A farmer lost his calf and went out to search for it. During his search for the calf, he found an eagle chick. He took the eagle carefully and brought it to his village. He said to his family that he will train the eagle to be a chicken, because the eagle is the king of the birds. So, the eagle lived among the chickens, learning their ways. As it grew, it began to look quite different from any chicken they had ever seen. One day a friend dropped in for a visit. The friend saw the bird among the chickens and he recognized that it is an eagle, not a chicken. The farmer disagreed, because the eagle behaved like a chicken. The farmer's friend tried to convince the farmer that it was not a chicken. His first attempt was not successful, he lifted the eagle above his head to let him fly, but the eagle jumped down and joined the chickens again. The next day, early in the morning, the farmer's friend took the farmer and the eagle high to the mountain to make him believe that the eagle is not a chicken. The farmer's friend said to the eagle: look at the sun, when it rises, rise with it. You belong to the sky, not to the earth. Then, the great eagle leaned forward and was swept upward higher and higher, lost to sight in the brightness of the rising sun, never again to live among the chickens.

The second text is about the fun of a day of hiking and it includes tips for your day hike planning, a packing checklist, important notes to keep yourself safe, and suggestions to make your day hike as fun and healthy as possible. You can find the complete texts in appendix 2. In total there are 24 questions and 10 are open-ended questions. The results of the open questions give insight into the higher order thinking skills of the students. First, on the basis of some questions from the PIRLS tests, the Turkish answers of the students are going to be analysed. There is a huge diversity in the way the students have given their answers. In some cases, even though the responses in many cases contains grammatical mistakes, but the expected answer is provided, the students are given points.

Question 7, 8, 12 and 15 are about interpreting and integrating ideas and information.

Text I, Question 7. Explain what the farmer's friend meant when he told the eagle, "You belong not to the earth but to the sky." Question 7 is about the interpretation of a quote. The student has to interpret the meaning of both parts of the quote – "belong not to the earth" and "belong to the sky" in line with the story.

For this question, the student can earn two points. Two points are given if a clear interpretation of the both parts of the quote is stated. Examples of correct answers are: "It is supposed to be free in the sky and not stuck on the ground". "That it was not a chicken who walked on the earth. It was an eagle and was meant to fly". "It was meant to be flying with other birds of its kind, not among chickens. It is meant to fly, not walk". "The sky is his home, not the ground." An example of a correct answer of a student is: '*Bir tavuk gibi yerde*

oturmadan lazim, gercek bir kartal gibi ucman lazim''. You should not sit on the ground like a chicken, you should fly as a real eagle. This student gives a clear interpretation of the quote and is able to connect the meaning of the quote to the story of the chicken and eagle.

One point is given when only one part of the quote is interpreted or if it is only mentioned that the eagle has to fly. Examples of answers in this case are: "It was not a chicken. It was an eagle. It was the king of the flying birds. It was not a ground animal. It is meant to fly." Or, the response describes the literal contrast only. An example of an answer of a student that earned one point is: "*Kartal ucmasi lazim*". The eagle has to fly. This student only mentions that the eagle has to fly, without the interpretation of the first part of the quote, the link to the earth.

No points are given when the student did not give any interpretation of the quote. The response may provide an explanation of the quote that is vague or inaccurate, or it may provide a simple rephrasing of the quote itself. For example: "It is supposed to be not of the earth but of the sky. It belongs to the sky not on the ground." An example of an incorrect answer of a student is: "*Yerde ait degilsin, yukarda aitsin*". You belong not to the earth but to the sky. The student here only rephrased the quote, without any interpretation of the quote at all. "*Sen bir tavuk degilsin*". You are not a chicken. This student interpreted the quote as being not a chicken, without explaining what is meant by earth and sky mentioned in the quote.

Text I, Question 9. Why did the farmer's friend take the eagle to the high mountains to make it fly? Give two reasons. The student needs to mention two reasons related to the sun, the mountains as the eagle's natural habitat, or the mountain's height in the sky.

For this question the student can earn two points. This question was difficult for the students. Only 36 of the 117 students got the two points for this question. Two points are given if two correct reasons are stated in the answer. Examples of correct answers are: "To see the sun (rise)/to feel the warmth of the sun/to follow the sun. To feel the updraft of the wind. To be in its natural home/where it belongs/where it was found. To get it closer to the sky/to get it higher." An example of a correct answer of a student is: "*Günün dogusunu gorup ucucarti. Dodugu yele goturduler cunku ozaman kendini gercekten bir kartal sanicakti*". After seeing the sun rising he will fly. The eagle was brought to the place he was born, so he can feel himself a real eagle. This student stated two correct reasons. Also this student tried to write the answer down in his/her own words, it is not literally copied from the text.

One point is given for this question when only one correct reason is stated. The response then only provides one reason related to the sun, the mountains as the eagle's natural habitat, or the mountain's height in the sky as listed below. A similar example of a students' response is: "*Dag yuksek oldugu icin. Ve arazi bos*". Because of the high mountain. And it is empty there. In this case, only the first part of the answer is relevant. The second part of the answer is not a correct reason.

No points are given when no correct reasons are stated. The response may provide a reason for making the eagle fly, rather than a reason for taking it to the mountains. Or a reason that is vague or inaccurate, or it may simply repeat part of the question. A lot of students have given this answer: “*Ucsun diye*”. *To make the eagle fly*. In this case, the students did not look for any reasons. They only repeated the last part of the question, to make it fly.

Text I, Question 12. You learn what the farmer’s friend was like from the things he did. Describe what the friend was like and give an example of what he did that shows this. The student has to describe one plausible character trait. In addition, the response provides one example of the farmer’s friend’s actions that are evidence of the character trait.

Two points are given for this question if the student described a character and gives an example of the farmer’s friend’s actions to prove the chosen character. Examples of correct answers are: “He was determined, he kept trying to teach the eagle to fly. He was clever, he knew to take the eagle to the mountain to make it fly. He is the kind of person that doesn’t give up, he went back to the farmer’s house a second time to convince the eagle it was an eagle. He was kind to animals. He wanted the eagle to be free.” Some students have gained the full two points for this question: “*Iyi bir insan, cunku hayvanin ucmasini sagladi*”. *It is a good person, because he helped the animal to fly*. The student describes the chosen character with an example from the story. “Kendi istedigini ispat etmek isteyen biri, kartalin tavuk olmadigini biliyor ve ispat etmek istiyordu”. *A person that wants to prove his point, he knew that the eagle was not a chicken and he wanted to prove this*. This student explains a property of a character and explains this in detail with an example from the text.

One point is given when the response provides one plausible character trait. Or, when the response provides one example of the friend’s actions that are evidence of the friend’s character. Examples are: “He is kind to animals. He takes the eagle to see the sun and fly away never to live among the chickens.” An example of a students’ answer: “*Dedigini ispat etmek icin devam etti*”. *He continued to prove his point*. In this case, the student only mentions an example from the story, without linking this example to a character of the farmer’s friend.

No points are given when the response does not provide an appropriate or accurate description of the farmer’s friend’s character, or provides a vague and general description that demonstrates limited comprehension of the story without further textual support. Or, when the response may include some information from the story that has no connection to the description of the friend’s character. Examples are: “He is mean. He tells the eagle it is a chicken. (Note that this response describes the farmer and not his friend.) He is happy. (Note that “happy” must have some text support to be considered acceptable.)”. An example of a students’ answer is: “*Kartali sevmedi ve korkugu icin kartalin gitmesini istedi*”. *He did not like the eagle, he was afraid and he wanted the eagle go away*. In this case, the student came up with something totally different than the content of the story. This shows that the student did not understand what the story is about.

Text II, Question 15. What are two things the leaflet told you to keep in mind when you are hiking in a group? The student needs to mention two suggestions for hiking in a group, one about the ability and the other about the interests of the group members.

Two points are given when the student wrote down the two things to keep in mind when you are with a group. Examples are: “Everyone should be able to do it. Go only as fast as the slowest person in the group. Choose a hike that suits everybody. It should be fun and interesting for everyone. Consider everyone when choosing where to go.” An example of a students’ answer is: ‘*En yavas kisinin hizini tut. Gitdiniz yer herkeze uygun olsun*’. *Go only as fast as the slowest person in the group. Choose a hike that suits everybody.* In this case, the student stated two suggestions, one about the ability and one about the interests of the group members.

One point is given when the response states only one suggestion for hiking in a group that takes into account either the ability or the interests of the group members. ‘*Gideceginiz yerin herkese uygun olmasi. Yaninizda bir duduk alin*’. *A hike that suits everybody. Bring a whistle with you.* In this case, only the first part of the answer is correct. The second one is picked from the text, but has nothing to do with the ability or interests of the group members.

No points are given when the response does not provide an accurate or acceptable suggestion for hiking in a group. It may provide a general suggestion for hiking not specific to being in a group, or a suggestion about being in a group that does not come from the leaflet. Examples are: Pack a first aid kit. Stay in your group. Always tell someone when you plan to be finished with your hike. An example of a students’ answer is: ‘*Nererde yuzudugunuze dikkat edin. Yabani cannilara karsi dikkatli olun*’. *Be careful where you are walking. Look out for wildlife.* These are picked from the text as well, but they are not related to the ability and interests of the group members.

Question 20 is about making straightforward inferences.

Text II, 20. Why is it important to tell someone when you plan to return from your hike? The student needs to show he/she understood that someone can help you in case something happens and you don’t return on time. The student can literally copy this answer from the text.

One point is given when the response demonstrates understanding that someone can help you in case something happens (e.g., you get into trouble or lost) and you don’t return on time. For example: “Because if you are not back in time someone will know there is something wrong and will find help. In case you get lost.” An example of a student who gained one point is: ‘*Basinizda bir sey gelirse o kisi yardim eder*’. *In case you get into troubles this person can help you.* This student found the answer in the text and tried to summarize it in own words.

No points are given when the response may provide a reason that does not show an understanding of the potential danger if the hiker does not return on time (lost or in trouble), or it may provide an inaccurate or inappropriate reason. Examples are: So they will know

when you will return. So they know where you are. So they will know you are not lost. An example of a students' response who did not gain any points is: *‘‘Vakite eve gelin’’*. *Be home on time*. This answer does not show an understanding of why it is important to let someone know when you are planning to return. It only says that you have to be home on time.

Question 23 is about examining and evaluating content, language and textual elements.

Text II, 23. What are two things you can learn by studying the map key? The student needs to include any two pieces of information that can be learned by studying the map key, either specific or general. Things that can be learned by studying the map key are: time it takes for each hike, the difficulty level of each hike, symbols for each trail (route to take/which way to go/where it is), a description of each hike, which hike is right for me/the best place to go and which is shortest, longest, or most challenging (or any specific facts about a particular hike from the table).

Two points are given when the response includes any two pieces of information that can be learned by studying the map key, either specific or general, as listed above. An example of a students' answer is: *‘‘Kac saat surer, nekadar zordir’’*. *How long it will take, how difficult it is*. Both parts of this answer can be learned by studying the map key.

One point is given when the student includes only one thing that can be learned by studying the map key, either specific or general, as listed above. An example of a students' response who gained one point is: *‘‘Kac saat surer, kimler gelebilir.’’* *How long it will take, who can join*. Only the first part of this answer is correct. The map does not tell who can join or not.

No points are given when the response does not include any accurate or relevant information that can be learned by studying the map key, either specific or general, like how to use the map or where to start the routes. An example of a students' response who gained no points is: *‘‘Yolu bilirsin, oralarda hep ne var.’’* *You will know the route, what you can find there*. This is a very simplistic answer, without any reflection based on the context.

5.2.3 PISA test

The PISA test consists of three texts. All the texts and questions can be found in appendix 3. The first text is about the safety of using mobile phones. It explains the facts of why or why not the use of a mobile phone can be dangerous for the health of human beings.

Example question: Look at table with the title NO, number 3. What can be in this context the other factors? Please explain why you gave this answer.

Table NO, number 3: People who make long phone calls often complain about fatigue, headaches and loss of concentration. These effects have never been observed in laboratory conditions and may be caused by other factors in modern lifestyles.

The aim of this question is testing the reflection and judgment abilities of the participant. The participants need to reflect and give a judgment on the content of the text. The participant also needs to use the previous knowledge to be able to reflect on the information in the text. The student can gain 1 point for this question if the student recognizes an aspect of modern life that may have to do with fatigue, headaches or loss of concentration. Possible answers for this question are: Sleep deprivation, Too much homework, Noise, Stress, Work, Exams, You do not have time to relax, Watching too much TV, Drugs, and Internet. An example answer of a student who gained 1 point is: *‘Fazla elektronik seylerle vakit gecirerek’*. *Spending too much time on electronic devices*. In this case, the student makes it clear that it is not about mobile phones but also other electronic devices such as television that can be a cause. 0 points are given if the students’ answer is insufficient or vague. An example of a student who gained 0 points is: *‘Modern yasam tarzlarinda’*. *Modern lifestyles*. In this case, the student only repeated the information already given in the text.

The second text is about blood donation. This text is from a French website and it explains the importance and ease of being a blood donor.

Example question: An eighteen-year-old woman who gave blood twice in the last twelve months, wants to give blood again. What requirements does she have to comply with to be allowed to do that?

The aim of this question is testing the integration and interpretation abilities of the participant. The student needs to develop an interpretation and make connections in a short text to draw a conclusion. The student can gain one point for this question if he or she indicates that since the last donation there should be sufficient time passed. A possible answer for this question is: It depends on whether it was eight weeks ago she gave blood for the last time. An example of a students’ correct answer is: *‘Her bagis arasinda gecmesi gereken zorunlu sure 8 haftadir’*. *The mandatory period that should pass between the donations is 8 weeks*. The student gained 0 points if the student does not show a sufficiently precise understanding or gives an implausible or irrelevant answer such as if she is old enough or she can give blood three times a year. An example of a students’ answer who gained 0 points is: *‘Bir kadin yilda 3 defa verebilir’*. *A woman can give blood three times a year*. This student was not able to make connections in this text.

The last text is a fable of Aesop, a story about a scrooge and his gold. One day he sold everything he had and bought gold. He buried this gold in his garden. Every day he checked if the gold was still there. One of his workmen saw him visiting the same place every day and followed him. He soon discovered the secret of the hidden gold and stole it. When Scrooge visited the hole next day and saw that it was empty, he started crying. His neighbour who heard what happened said that he can better take a stone and put it in the hole, and imagine that the gold is still there. It will give you the same pleasure since you did nothing with the gold at all.

Example question: You can see a conversation between two people who have read the story about the scrooge and his gold. What could Speaker 2 say to support his opinion?

Speaker 1: The neighbour is mean. He could have replaced the gold with something better than a stone.

Speaker 2: No, he is not. The stone was particularly important in this story.

The aim of this question is testing the integration and interpretation abilities of the participant. The student needs to develop an interpretation and connect a detail of the fable with the main idea of the story. The student needs to show he or she understood that the main idea of this story has to do with gold that is replaced by something that is useless or worthless. Possible correct answers for this question are: The gold needed to be replaced by something worthless to make the message clear. If he said something else than stone, something better, than the neighbour could not make his message clear because at the end the scrooge did nothing with the gold. The student can gain 1 point for this question. An example of a students' correct answer is: *‘‘Cunku cimri zaten o altinlari kullanmiyordu o halde tasda isini gorurdu’’*. *Because the scrooge did not use the gold anyway so the stones will have in this case the same function*. 0 points are given if the answer is insufficient or vague. For example, when the student repeats Speaker 2 by saying that the stone is important in this story or without giving any further explanation. An example of a students' incorrect answer is: *‘‘Tas kolay birsey ve toprakta buluniyor’’*. *Stone is an easy thing and it can be found in the ground*. The student is in this case not mentioning the meaning of the stone at all. This student was not able to connect a detail of the fable with the main idea of the story.

5.2.4 Reflections

From the analysis of the responses it can be concluded that there is a huge diversity in the kind of comments the informants have given. Some of the informants were able to interpret and integrate ideas and information, make straightforward inferences and examine and evaluate content, language and textual elements and while some of the informants were not able to do it or did very poorly. We can clearly recognize that some of the informants are in stage 1 of the thinking skills, they are only able to recognize, describe, identify, retrieve, name, find and define. They lack skills for creating, evaluating, analysing, applying and understanding information. Some of the informants only reached the first three levels: remembering, understanding and applying, without having the skills of analysing, evaluating and creating. Also linguistically there is a huge diversity in the answers the informants have given. Some of the students have given the answers with the correct Turkish characters. Some of them wrote the sentences down without the characters and some wrote them down in spoken language. The writing skills of the students is a subject to be analysed on its own. One thing is clear that students of both PIRLS and PISA have very low literacy skills in Turkish.

CHAPTER 6. DISCUSSION & CONCLUSIONS

This research investigated the claimed link between first and second language skills of Turkish immigrant children. By using international programs testing the reading proficiency of 4th and 9th grade Turkish immigrant children the link between Turkish and Dutch reading proficiencies is examined. The linguistic interdependence hypothesis of Jim Cummins (1979) is tested for the first time in the Netherlands in two different age groups. Verhoeven (1994) had compared the first and second language skills of 6 years old children earlier in the Netherlands. The interdependence hypothesis of Jim Cummins proposes that the level of the second language competence of a bilingual child is partially a function of the type of competence the child has already developed in the first language. In line with our conceptual framework and hypotheses developed, we can say that there is a strong relationship between the level of the first language and the level of the second language competence of the student. The first hypothesis stated that students with a higher competence in the first language have also higher competence in the second language. This hypothesis can be substantiated by the following sub questions: the first research question about the relationship between first and second language skills of immigrant children, the fourth research question about if the levels achieved in the first language have an effect on the level achieved in the second language, and the fifth question about the higher order thinking skills of the students in both languages. The results of the first question have shown that those students who have low skills in Turkish also have equally low skills in Dutch; in the same vein, those who have high skills in Dutch also have equally high levels in Turkish. There is a clear consistent pattern and therefore we can conclude that there is a clear relationship between the first and second language skills of the immigrant children. This confirms Cummins' (1979) hypothesis that the development of competence in a second language is partially a function of the type of competence already developed in the first language. Looking at the fourth research question, the results have shown again that there is a highly significant relationship between the levels achieved in the first and second language. The threshold model, also hypothesized by Cummins (1979), shows that there may be threshold levels of linguistic competence which a bilingual child must attain both in order to avoid cognitive advantages and allow the potentially beneficial aspects of bilingualism to influence his cognitive and academic functioning (Cummins, 1979). Our fifth research question shows that in general the higher order thinking skills in Dutch are much higher than the higher order thinking skills in Turkish. But interestingly we can see that students with high Turkish score had also high scores for higher order thinking skills for both Turkish and Dutch. Consequently, a high Turkish score is not only positively affecting the Turkish higher order thinking skills, but has also a very positive affect on the Dutch higher order thinking skills. In addition, the scores have shown that a high Dutch score also positively affects the higher order thinking skills both in Turkish and Dutch. Referring back to Cummins' second hypothesis about the threshold model, these results are confirming this hypothesis as well. The results have shown that a high score both in Turkish and Dutch have a strong positive affect on their Turkish and Dutch higher order thinking skills, which will give the immigrant children an advantage on their cognitive and academic functioning. These results are also confirming our second hypothesis that children who cannot demonstrate group

average skills will have lower levels in higher order thinking skills, because only the children who scored high on both Turkish and Dutch had also high scores on Turkish and Dutch higher order thinking skills. Bialystok (2001) maintains that all else being equal, the uses for which a child must employ the second language will influence the way in which it impacts on cognitive development. This confirms the fact that bilinguals usually do not have equal fluency in both of the languages. The proficiency that the child develops in each language is a specific response to a set of needs and circumstances. Some of these specific functions become integrated as inseparable parts of language proficiency.

The second research question was about the correlation between the language proficiency of the children and their language use-choice patterns. The results have shown that in the case for the children with the age of 10, there is a very high correlation between their Turkish and Dutch skills, but there is no significant correlation between language skills and the language choice, preferences and attitudes of the informants. However, in the case of the children with the age of 15, there is a significant correlation between language choice preference and language skills of the informants. The results of the PISA group are more consistent. In the preschool years a Turkish dialect is the most important variety (Leseman, 2000) but as they grow older Dutch becomes dominant in their lives (Extra & Yagmur, 2004). Language education policy is a very significant part of the integration policy of the state. Common use of submersion model in the European school puts obstacles before immigrant childrens' development of heritage language. As a result of subtractive bilingual environment, cognitive skills of bilingual children do not improve sufficiently in comparison to mainstream children. This leads to lower self-esteem and lower identity development. Referring to the results of this research, they can be connected to the theory of affective and cognitive dimensions. The affective domain refers to the experience of feeling or emotion of the children. Affectivity is at the core of everything we do in and with our lives. The cognitive domain can be seen as the process of knowledge acquisition and can be connected to the tests we have done with the children. The language choices, preferences and attitudes of the children are a part of their emotion, therefore these results might not show the reality. For them, "the belonging to" feeling has to do specifically with the spoken language. Turkish language is viewed as a core marker of identity among Turkish immigrants in Western Europe (Extra, Yağmur, & Van der Avoird, 2004). Gabrys-Barker and Bielska (2013) have concluded in their book that a positive attitude towards the second language and its speakers, identification with the second language group, and the willingness to facilitate second language acquisition can lead to better outcomes. Additionally, high levels of first language anxiety, negative attitudes towards the language and its speakers and counterproductive beliefs about language learning lead to lower levels of achievement. Especially within the older group, who have clearly shown to have a positive attitude towards both the Turkish and the Dutch languages, we can see that these attitudes positively affect their Turkish and Dutch results.

The third research question was about the role of socio-economic status (SES) factors in explaining the reading proficiency differences of bilingual children. Theory showed us that students from a low-SES background are often seen as disadvantaged, especially when the

spoken language at home is different from the language of the school instruction. The results have shown that this relationship between the Turkish and Dutch language skills and the profession of the parents is not significant. However, we have to keep in mind that a lot of children left this question blank. They probably do not know the profession of their parents or it might also be that the parents are unemployed. There is extensive research evidence that socioeconomic status of parents, material conditions in the home context, mother's education and interaction level with the child would have considerable effect in language acquisition because high quality linguistic input makes a difference in children's language learning (Scheele, Leseman & Mayo, 2010; Schwartz, et al. 2009). Mothers' involvement in their children's education and the quality of linguistic input provided at home turn out to be crucial factors for language development. Home literacy activities, such as picture book reading and games requiring extensive language use result in extensive parent-child conversations. Such activities enable parents to use an extensive vocabulary, complex and information-dense sentences, and semantically interconnected discourse, which are generally known to stimulate language development in young children (Scheele et al. 2010). In some cases, our contact with the parents was closer compared to others. What we have experienced is that the mothers' involvement in their children's education has a greater impact on the linguistic development of a child compared to the socioeconomic status. Most of the mothers were unemployed, or in other words, they are "housewives". There was a huge diversity in the level of attention the unemployed mothers were giving to their children. Some of the mothers were very inattentive; they even did not know in which class of the primary school the child is. On the contrary, some of the mothers were very attentive, they are often visiting the library together and reading books both in Turkish and Dutch with their children. This shows us that of course the socioeconomic status is important, but other factors need to be taken into account as well.

The sixth research question was about the acculturation orientations and language proficiency of the informants. The results have shown that the lower Dutch orientation is, the lower the integration is and the higher the Turkish orientation, the higher the Dutch score is. From these results we can conclude that a high Dutch score does not negatively affect the identity of the informant and that a high Turkish score does not affect the integration of the informant. This is an interesting finding, since a lot of politicians are using the argument that speaking in your mother tongue is negatively affecting the integration process. They often claim that many immigrants have divided loyalties and a lack of attachment to the host society and therefore undermine a cohesive national identity (Vroome et al., 2014). Speaking in a language different from Dutch is seen as an obstacle before the learning of Dutch and also the integration process. First language skills and cultural heritage of immigrant children are not seen as valuable assets but as problems. The findings of this research are supporting exactly the opposite. This is also in line with the conclusion in the article of Vroome et al. (2014), saying that host national identification among immigrants does not appear to be much lower than the national identification of natives.

6.1 Conclusion

The aim of this research was to examine the link between the Turkish and Dutch reading proficiencies of 4th and 9th grade Turkish immigrant children in the Netherlands. The results of this research have shown us that there is indeed a link between the Turkish and Dutch reading proficiencies of the 4th and 9th grade Turkish immigrant children in the Netherlands. We have seen that the better the Turkish reading proficiencies are, the better the Dutch reading proficiencies are. However, we have seen that this link is stronger for the 9th grade Turkish immigrant children than for the 4th grade Turkish immigrant children. The Turkish and Dutch skills for the 9th grade Turkish immigrant children are much more comparable. But for both of these groups, this relationship is highly significant. We can conclude that, in contrast to what policy makers are often claiming, poor performances of immigrant children at school are not due to their native language spoken at home, but due to lower skills in their first language. We can say that Cummins' interdependence hypothesis is fully supported with this research that the level of the second language competence of a bilingual child is indeed partially a function of the type of competence the child has already developed in the first language.

6.2 Limitations

Although the research has reached its aims, there were some unavoidable limitations. First, because of the time limit, this research was conducted only with informants from the provinces Noord-Brabant and Utrecht. Most of the Turkish immigrants live in the Randstadt. Including second- and third-generation Turkish students from the four major cities would have increased the representability of the sample.

6.3 Further research

In this research, we only have focused on the reading proficiencies of 4th and 9th grade Turkish immigrant children in the Netherlands. However, the results of the PIRLS and PISA tests have given us also an interesting insights about the writing skills of the children in both Turkish and Dutch languages. These data can provide a good basis for an interesting follow-up study about the writing skills in Turkish and Dutch of Turkish immigrant children in the Netherlands.

REFERENCES

- Akoglu, Gözde, & Yagmur, Kutlay (2016). First-language skills of bilingual Turkish immigrant children growing up in a Dutch submersion context. *International journal of bilingual education and bilingualism*, 1-16.
- Ammermüller, A. (2005). Poor Background or Low Returns? Why Immigrant Students in Germany Perform So Poorly in PISA, *Discussion Paper* No. 05-18,
- Bialystok, E. (2001). *Bilingualism in Development: Language, Literacy and Cognition*, Cambridge: Cambridge University Press
- Bialystok, E. (2005). Consequences of bilingualism for cognitive development. In J. F. Kroll & A. M. B. de Groot (Eds.), *Handbook of bilingualism: Psycholinguistic approaches* (pp. 417–432). New York, NY: Oxford University Press.
- Bloom, B. S. (1956). Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger
- Cummins, J. (1977). Cognitive factors associated with the attainment of intermediate levels of bilingual skills. *Modern Language Journal*, 61, 3-12.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49, 222-251.
- Cummins, J. (2014). Language and Identity in Multilingual Schools: Constructing Evidence based Instructional Policies. *Managing Diversity in Education*. Bristol, Buffalo and Toronto, 3-26.
- DeVillar, R. A., Jiang, B., & Cummins, J. (Eds.). (2013). Transforming education: Global perspectives, experiences and implications. New York: Peter Lang Publishing.
- Driessen, G. Van der Slik, F. & de Bot, K. (2002). Home Language and Language Proficiency: A Large-scale Longitudinal Study in Dutch Primary Schools. *Journal of Multilingual & Multicultural Development*, 23, 3, 175-194.
- Duursma, E. & Contreras, S. & Szuber, A. & Proctor, P. & Snow, C. (2007). The role of home literacy and language environment on bilinguals' English and Spanish vocabulary development. *Applied Psycholinguistics*, 28: 171-190
- Eivers, E. & Clerkin, A. (2012). *PIRLS & TIMSS 2011 reading, mathematics and science outcomes for Ireland*, Dublin: Educational Research Centre

- Extra, G. & Gorter, D. (2001). *The Other Languages of Europe. Demographic, Sociolinguistic and Educational Perspectives*. Clevedon: Multilingual Matters.
- Extra, G. & Verhoevel, L. (1999). *Bilingualism and Migration*. Berlin: Mouton de Gruyter
- Extra, G. & Yağmur, K. (eds.) (2004). *Urban Multilingualism in Europe. Immigrant and minority languages at home and school*. Clevedon: Multilingual Matters.
- Extra, G., Yağmur, K., & Van der Avoird, T. (2004). Methodological considerations. In G. Extra & K. Yağmur (Eds.), *Urban multilingualism in Europe: Immigrant minority languages at home and school* (pp. 109-132). Clevedon, UK: Multilingual Matters.
- Franceschini, R. (2011). Multilingualism and multicompetence: A conceptual view. *The Modern Language Journal*, 95, 344-355. doi:10.1111/j.1540-4781.2011.01202.x.
- Gabrys-Barker, D. & Bielska, J. (2013). *The Affective Dimension in Second Language Acquisition*. Multilingual Matters
- Glaser, E.M. (1941). *An Experiment in the Development of Critical Thinking*, Teacher's College, Columbia University
- Helot, C. & Young, A. (2002) Bilingualism and language education in French primary schools: Why and how should migrant languages be valued? *International Journal of Bilingual Education and Bilingualism*, 5, 96-112, doi:10.1080/13670050208667749.
- Hochschild, J. & Cropper, P. (2010). Immigration regimes and schooling regimes: which countries promote successful immigration incorporation? *Theory and Research in Education*, 8/1: 21-61
- Krashen, S. (1985). *The input hypothesis: issues and implications*. London: Longman.
- Krashen, S. & Terrell, T. (1983). *The natural approach: language acquisition in the classroom*. Hayward/California: Alemany Press
- Kroll, J., Dussias, P., Bice, K., Perrotti, L. (2015). Bilingualism mind and brain. *The Annual Review of Linguistics*, 1: 377-394
- Leseman, P. (2000). Bilingual vocabulary development of Turkish pre-schoolers in Netherlands. *Journal of Multilingual and Multicultural Development*, 21/1: 93-112
- Levin, T. & Shohamy, E. (2008). Achievement of immigrant students in mathematics and academic Hebrew in Israeli school. *A large scale evaluation study: Studies in Educational Evaluation*, 34, 1-14.

- Leyendeckera, B., Jakel, J., Kademoğlu, S., Yağmurlu, B. (2011). Parenting practices and pre-schoolers' cognitive skills in Turkish immigrant and German families. *Early Child Development and Care*, 181/8: 1095-1110
- Limbird, C. & Maluch, J. & Rjosk, C. & Stanat, P. & Merkens, ' (2013). Differential growth patterns in emerging readings skills of Turkish-German bilingual and German monolingual primary school students. *Read Writ*, 27: 945-949
- Lowry, L. (2011). *Bilingualism in young children: separating fact from fiction*. Online (02-02-2016): <http://.hanen.org/Helpful-Info/Articles/Bilingualism-in-Young-Children—Separating-Fact-fr.aspx>.
- Luchtenberg, S. 2002, Bilingualism and bilingual education and their relationship to citizenship from a comparative German-Australian perspective. *Intercultural Education*, 13, 1, 49-61.
- McGaw, B. (2008). The role of the OECD in international comparative studies of achievement. *Assessment in Education: Principles Policy and Practice*. 15: 223-243
- Nap-Kollhoff, E., Van Schilt-Mol, T., Simons, M., Sontag, L., Van Steensel, R. & Vallen, T. (2008). *VVE onder de loep: Een studie naar de uitvoering en effectiviteit van voor- en vroegschoolse educatieve programma 's*. Tilburg: IVA
- OECD. (2010). PISA 2009 results: Overcoming social background – Equity in learning opportunities and outcomes (Vol. II) Paris: OECD. Retrieved from <http://.oecd.org/pisa/pisaproducts/48852584.pdf>
- Pearson, B. (2007). Social factors in childhood bilingualism in the United States. *Psycholinguistics*, 28, 399-410
- Scheele, A. F., Leseman, P. M. & Mayo, A. ' (2010). The home language environment of monolingual and bilingual children and their language proficiency. *Applied Psycholinguistics*, 31, 117–140. DOI:10.1017/S0142716409990191
- Schwartz, M. (2014). The impact of the first language first model on vocabulary development among preschool bilingual children. *Read Writ*, 27: 709-732
- Schwartz, M., Kozminsky, E., & Leikin, M. (2009). Socio-linguistic factors in second language lexical knowledge: the case of second-generation children of Russian Jewish immigrants in Israel. *Language, Culture and Curriculum*, 22:1, 15-28, DOI:10.1080/07908310802504119
- Yağmur, K. & Konak, O.A. (2009). Assessment of language proficiency in bilingual children: How valid is the interdependence hypothesis. *Turkish languages*, 13: 274-284

- Yağmur, K. & van de Vijver, F. (2011). Acculturation and language orientations of Turkish immigrants in Australia, France, Germany and the Netherlands. *Journal of Cross-Cultural Psychology*, vol. 43 no. 7 1110-1130
- Verhoeven, L.T. (1994). Transfer in bilingual development: The linguistic interdependence hypothesis revisited. *Language learning* 44:4, p, 381-415
- Verhoeven, L.T. (2000). Components in early second language reading and spelling. *Scientific Studies of Reading*, 4/4: 313-330
- Verhoeven, L.T. (2007) Early bilingualism, language transfer and phonological awareness. *Applied Psycholinguistics*, 28, 425-439
- Vroome, T., Verkuyten, M., & Martinovic, B. (2014). Host National Identification of Immigrants in the Netherlands, *International Migration Review*, 48:1, 76-102

APPENDIX

Appendix 1: Survey

Jouw mening vinden wij erg belangrijk! Deze enquête gaat over jouw taalgebruik. Wanneer en met wie praat je Nederlands en Turks? Welke taal gebruik je vaker? Welke rol hebben deze twee talen in jouw leven? Dit zijn vragen die wij graag beantwoord willen hebben. Lees de vragen goed en neem de tijd om ze te beantwoorden. Als je iets niet begrijpt, kun je dat gerust aan een van de begeleiders vragen.

In de vragenlijst mag je aangeven in hoeverre je eens bent met de genoemde stellingen. De bedoeling is dat je het nummer omcirkelt dat het meest overeenkomt met jouw mening. Hieronder volgen 2 voorbeelden.

Bijvoorbeeld, als je vindt dat Nederland een mooi land is, dan mag je cijfer 5 omcirkelen (geheel mee eens).

	Geheel mee oneens	Mee oneens	Neutraal	Mee eens	Geheel mee eens
Nederland is een mooi land.	1	2	3	4	5 

Als je van mening bent dat Nederland GEEN mooi land is, mag je cijfer 1 omcirkelen (geheel mee oneens).

	Geheel mee oneens	Mee oneens	Neutraal	Mee eens	Geheel mee eens
Nederland is een mooi land.	1 	2	3	4	5

DEEL 1: DE NEDERLANDSE EN DE TURKSE CULTUUR

Er wonen verschillende culturele groepen in Nederland. Tot welke groep vindt je dat je behoort?

0 De TURKSE groep

0 De NEDERLANDSE groep

0 Allebei

0 Anders, namelijk

.....

	Geheel mee oneens	Mee oneens	Neutraal	Mee eens	Geheel mee eens
Ik voel me Turks	1	2	3	4	5
Ik voel me Nederlands	1	2	3	4	5

Ik voel mij Turks, omdat;

	Geheel oneens	mee	Mee oneens	Neutraal	Mee eens	Geheel eens	mee
Ik Turks spreek	1		2	3	4	5	
Ik een Moslim ben	1		2	3	4	5	
Ik veel kennis heb van mijn religie	1		2	3	4	5	
Ik volgens de Turkse normen en waarden leef	1		2	3	4	5	
Mijn ouders Turks zijn	1		2	3	4	5	
Ik volgens de Turkse traditie ben opgevoed	1		2	3	4	5	
Ik er Turks uitzie	1		2	3	4	5	
Ik me meer op mijn gemak voel bij Turken	1		2	3	4	5	
Andere mensen me beschouwen als Turk	1		2	3	4	5	
De Nederlandse cultuur mij niet aanspreekt	1		2	3	4	5	

Ik voel me Nederlands, omdat:

	Geheel oneens	mee	Mee oneens	Neutraal	Mee eens	Geheel eens	mee
Ik Nederlands spreek	1		2	3	4	5	
Ik goed op de hoogte ben van de Nederlandse normen en waarden en tradities	1		2	3	4	5	
Ik volgens de Nederlandse normen, waarden en tradities leef	1		2	3	4	5	
Ik als Nederlander ben opgevoed	1		2	3	4	5	
Ik er Nederlands uitzie	1		2	3	4	5	
Ik me meer op mijn gemak voel bij Nederlanders	1		2	3	4	5	
Andere mensen me beschouwen als Nederlander	1		2	3	4	5	
De Turken in Nederland en hun cultuur me niet aanspreken	1		2	3	4	5	

DEEL 2: ALLOCHTONEN IN NEDERLAND

Geef aan in hoeverre je eens bent met de volgende stellingen:

	Geheel oneens	mee oneens	Mee oneens	Neutraal	Mee eens	Geheel eens	mee eens
Allochtonen in Nederland moeten Nederlands spreken	1		2	3	4		5
Allochtonen in Nederland moeten de Nederlandse normen en waarden belangrijker vinden dan normen en waarden van andere culturen	1		2	3	4		5
Allochtonen in Nederland mogen in hun eigen moedertaal spreken	1		2	3	4		5
Allochtonen in Nederland mogen leven volgens de normen en waarden van hun eigen cultuur	1		2	3	4		5
Allochtonen in Nederland mogen de normen en waarden van hun eigen cultuur waarderen	1		2	3	4		5
Allochtonen in Nederland horen te leven volgens de normen en waarden van de Nederlandse cultuur	1		2	3	4		5

IN HET OPENBAAR, OP HET WERK EN OP SCHOOL

	Geheel oneens	mee oneens	Mee oneens	Neutraal	Mee eens	Geheel eens	mee eens
Allochtonen in Nederland moeten altijd Nederlands spreken in het openbaar, op het werk en op school	1		2	3	4		5
Allochtonen in Nederland mogen in hun eigen moedertaal spreken in het openbaar, op het werk en op school	1		2	3	4		5
Allochtonen in Nederland moeten de Nederlandse normen en waarden respecteren in het openbaar, op het werk en op school	1		2	3	4		5
Allochtonen mogen zich naar hun eigen (niet-Nederlandse) normen en waarden gedragen in het openbaar, op het werk en op school	1		2	3	4		5
Allochtonen in Nederland moeten zich gedragen naar de Nederlandse normen en waarden in het openbaar, op het werk en op school	1		2	3	4		5

THUIS

	Geheel oneens	mee	Mee oneens	Neutraal	Mee eens	Geheel eens	mee
Allochtonen mogen thuis in hun eigen taal praten	1		2	3	4	5	
Allochtonen in Nederland moeten thuis de Nederlandse normen en waarden respecteren	1		2	3	4	5	
Allochtonen in Nederland mogen thuis zich naar hun eigen (niet-Nederlandse) normen en waarden gedragen	1		2	3	4	5	
Allochtonen moeten ook thuis in het Nederlands praten	1		2	3	4	5	

DEEL 3: TAALGEBRUIK (TURKS VERSUS NEDERLANDS)

Welke taal spreek je meestal met de volgende personen?

	Altijd Nederlands	Meestal Nederlands	Beiden evenveel	Meestal Turks	Altijd Turks
Met je vader?	1	2	3	4	5
Met je moeder?	1	2	3	4	5
Met je broers en zussen?	1	2	3	4	5
Met je Turkse vrienden?	1	2	3	4	5
Met vrienden op Facebook?	1	2	3	4	5
Met vrienden op je mobiele telefoon (sms/whatsapp)?	1	2	3	4	5
Met mensen in de moskee?	1	2	3	4	5
Met Turkse kennissen aan de telefoon?	1	2	3	4	5

Welke taal gebruik je meestal als je... ?

	Altijd Nederlands	Meestal Nederlands	Beiden evenveel	Meestal Turks	Altijd Turks
Denkt?	1	2	3	4	5
Droomt?	1	2	3	4	5
Rekent en telt?	1	2	3	4	5
Boeken leest?	1	2	3	4	5
De krant leest?	1	2	3	4	5
TV kijkt?	1	2	3	4	5
Naar de radio luistert?	1	2	3	4	5
Schrijft?	1	2	3	4	5

Wat vind je van het Turks en het Nederlands?

	Dat vind ik alleen van Nederlands	Dat vind ik meer van het Nederlands dan van het Turks	Dat vind ik voor allebei de talen hetzelfde	Dat vind ik meer van het Turks meer dan van het Nederlands	Dat vind ik alleen van het Turks
Het klinkt leuk	1	2	3	4	5
Het klinkt vriendelijk	1	2	3	4	5
Het klinkt deftig	1	2	3	4	5
Het klinkt beleefd	1	2	3	4	5
Het klinkt gezellig	1	2	3	4	5
Het klinkt modern	1	2	3	4	5

DEEL 4: PERSOONSGEGEVENS

1) Geslacht:

☐ Vrouw

☐ Man

2) Leeftijd:

3) Geboortedatum: Dag:Maand: Jaar:.....

4) Geboorteland

☐ Turkije

☐ Nederland

☐ Anders, namelijk:

.....

5) Hoelang woon je in Nederland? jaar

6) In welk land is je vader geboren?

☐ Turkije

☐ Nederland

☐ Anders, namelijk:

.....

7) In welk land is je moeder geboren?

☐ Turkije

☐ Nederland

☐ Anders, namelijk:

.....

8) Wat is het beroep van je vader?

.....

- 9) Wat is het beroep van je moeder?
.....
- 10) Wat is je woonplaats?
.....
- 11) Wat is je opleidingsniveau?
- ☐ Vmbo: basis-en kaderberoepsgerichte leerweg
 - ☐ Vmbo: theoretische en gemengde leerweg
 - ☐ Havo
 - ☐ Vwo
 - ☐ Anders, namelijk
.....
- 12) Hoe vaak keer je terug naar je moederland?
- ☐ Vaker dan een keer per jaar
 - ☐ Een keer per jaar
 - ☐ Eens per 2 jaar
 - ☐ Eens per 3 jaar
- 13) Hoeveel uur in de week krijg je Turkse les?
- ☐ Ik krijg geen Turkse les
 - ☐ 1-2 uur
 - ☐ 3-4 uur
- 14) Zo ja, waar krijg je deze Turkse les?
- ☐ Nederlandse school
 - ☐ Turkse school
 - ☐ Moskee
- 15) Lees je Turkse boeken thuis met je vader of moeder?
- ☐ Ja
 - ☐ Nee
- 16) Hoeveel Turkse boeken hebben jullie thuis?
- ☐ Helemaal geen
 - ☐ Ongeveer 1-10
 - ☐ Ongeveer 11-20

EINDE VAN DE VRAGENLIJST. DANK JE VOOR DE MEDEWERKING!

Appendix 2: PIRLS test**LEESTOETS PIRLS****‘Vlieg Adelaar, vlieg’ & ‘Ontdek hoe leuk wandelen is’****VOORNAAM:****ACHTERNAAM:****SCHOOL:****KLAS:****GEBOORTEDATUM: DAG / MAAND / JAAR****.....**

Vlieg Adelaar, vlieg

(Een Afrikaans verhaal)

Een boer ging op een dag op zoek naar een verdwaald kalf. Het was de avond ervoor niet met de herders mee teruggekomen. En die nacht had het vreselijk gestormd.

Hij ging naar het dal en zocht bij de rivier, tussen het riet, achter de rotsblokken en in het snelstromende water.

Hij beklom de hellingen van de hoge berg met zijn steile rotswanden. Hij keek achter een groot rotsblok voor het geval dat het kalf daar was weggekropen om te schuilen voor de storm. En daar bleef hij plotseling stilstaan. Daar, op de richel van een rots, zag hij iets heel ongewoons. Een adelaarsjong was een dag of twee eerder uit zijn ei gekomen, en was door de vreselijke storm uit zijn nest gewaaid.

Hij strekte zijn armen uit en pakte het jong met beide handen vast. Hij wilde het mee naar huis nemen en ervoor zorgen.

Hij was bijna thuis toen de kinderen naar hem toe renden om hem te begroeten. 'Het kalf is zelf terug gekomen!' riepen ze.

De boer was erg blij. Hij liet het adelaarsjong aan zijn gezin zien en zette het toen voorzichtig in de kippenren tussen de hennen en kuikens.

'De adelaar is de koning der vogels,' zei hij, 'maar we zullen hem leren een kip te zijn.'

En zo leefde de adelaar tussen de kippen en leerde hun gewoonten.

Terwijl hij groeide, begon hij er behoorlijk anders uit te zien dan alle andere kippen die ze ooit gezien hadden.

Op een dag kwam een vriend langs voor een bezoekje. De vriend zag de vogel tussen de kippen. 'Hé! Dat is geen kip. Dat is een adelaar!'

De boer glimlachte naar hem en zei: 'Natuurlijk is dat een kip. Kijk maar – hij loopt als een kip, hij eet als een kip. Hij denkt als een kip.'

Natuurlijk is het een kip.'

Maar de vriend was niet overtuigd. 'Ik zal je laten zien dat het een adelaar is', zei hij.

De kinderen van de boer hielpen zijn vriend de vogel te vangen. Hij was tamelijk zwaar, maar de vriend van de boer tilde hem boven zijn hoofd en zei: 'Je bent geen kip, maar een adelaar. Je behoort niet aan de aarde maar aan de hemel. Vlieg, adelaar, vlieg!'

De vogel strekte zijn vleugels uit, keek om zich heen, zag de kippen eten en sprong naar beneden om met hen naar eten te scharrelen.

'Ik zei toch dat het een kip was', zei de boer, en hij schaterde van het lachen.

De volgende ochtend heel vroeg begonnen de honden van de boer te blaffen. Een stem riep buiten in de duisternis. De boer rende naar de deur. Het was zijn vriend weer. 'Geef me nog een kans met de vogel', smeekte hij.

'Weet je wel hoe laat het is? Het is nog lang geen dag.'

'Kom met me mee. Ga de vogel halen.'

Met tegenzin pakte de boer de vogel op, die diep in slaap was tussen de kippen. De twee mannen vertrokken en verdwenen in de duisternis.

‘Waar gaan we heen?’ vroeg de boer slaperig.

‘Naar de bergen waar je de vogel gevonden hebt.’

‘En waarom op dit belachelijke tijdstip in de nacht?’

‘Zodat onze adelaar de zon kan zien opkomen boven de berg en hem kan volgen, de lucht in, waar hij thuishoort.’

Ze liepen het dal in en staken de rivier over, de vriend voorop.

‘Schiet op,’ zei hij, ‘want de dageraad is er eerder dan wij.’

Het begon net licht te worden toen ze de berg begonnen te beklimmen. De dunne wolkenlierten in de lucht waren eerst roze, en begonnen toen te glinsteren met een gouden schittering. Soms was het pad gevaarlijk, want het liep dicht langs de rand van de berg, over smalle rotsachtige richels en door donkere spleten. Eindelijk zei hij: ‘Zo is het wel genoeg.’ Hij keek langs de rotswand naar beneden en zag de grond duizenden meters onder hen. Ze waren vlakbij de top.

Voorzichtig droeg de vriend de vogel naar een richel toe. Hij zette hem neer zodat hij naar het oosten keek en begon ertegen te praten. De boer grinnikte. ‘Hij praat alleen kippentaal.’

Maar de vriend sprak verder en vertelde de vogel over de zon, hoe die leven schenkt aan de wereld en heerst over de hemel en licht geeft aan elke nieuwe dag. ‘Kijk naar de zon, adelaar. En als hij rijst, ga dan mee omhoog. Je behoort aan de hemel, niet aan de aarde.’ Op dat moment schoten de eerste zonnestralen over de berg heen, en de wereld baadde opeens in licht.

De zon rees majestueus. De machtige vogel strekte zijn vleugels uit om de zon te begroeten en de warmte op zijn veren te voelen. De boer was stil. De vriend zei: ‘Je behoort niet aan de aarde, maar aan de hemel. Vlieg, adelaar, vlieg!’ Hij klauterde terug naar de boer. Alles was stil. De kop van de adelaar ging omhoog, zijn vleugels strekten zich uit, en zijn poten leunden naar voren terwijl zijn klauwen de rots vastgrepen.

Toen, zonder echt te bewegen, een opwaartse luchtstroom voelend die sterker was dan welke mens of welke vogel dan ook, leunde de machtige adelaar voorover en werd meegevoerd, hoger en hoger, tot hij uit het zicht verdween in de schittering van de opkomende zon, om nooit meer terug te keren naar een leven tussen de kippen.

VRAGEN ‘Vlieg adelaar, vlieg!’

1. Waarnaar ging de boer op zoek aan het begin van het verhaal?
 - A) een kalf
 - B) herders
 - C) steile rotswanden
 - D) een adelaarsjong
2. Waar vond de boer het adelaarsjong?
 - A) op zijn nest
 - B) bij de rivier
 - C) op de richel van een rots
 - D) tussen het riet
3. Waaruit blijkt in het verhaal dat de boer voorzichtig was met het adelaarsjong?
 - A) Hij droeg het adelaarsjong in beide handen.
 - B) Hij bracht het adelaarsjong naar zijn gezin.
 - C) Hij zette het adelaarsjong terug op zijn nest.
 - D) Hij zocht bij de rivier naar het adelaarsjong.
4. Wat deed de boer met het adelaarsjong toen hij het mee naar huis nam?
 - A) Hij leerde het vliegen.
 - B) Hij liet het vrij.
 - C) Hij leerde het een kip te zijn.
 - D) Hij maakte er een nieuw nest voor.
5. Tijdens het eerste bezoek van de vriend gedroeg het adelaarsjong zich als een kip. Geef hier **twee** voorbeelden van.

1).....

2).....

6. Toen de vriend van de boer de adelaar voor het eerst zag, hoe probeerde hij de adelaar toen te laten vliegen?

- A) Hij tilde hem boven zijn hoofd.
- B) Hij zette hem op de grond.
- C) Hij wierp hem in de lucht.
- D) Hij bracht hem naar de berg.

7. Leg uit wat de vriend van de boer bedoelde toen hij tegen de adelaar zei: 'Je behoort niet aan de aarde maar aan de hemel.'

.....

8. Waarom schaterde de boer van het lachen tijdens het eerste bezoek van zijn vriend?

- A) De adelaar was te zwaar om te vliegen.
- B) De adelaar was moeilijk te vangen.
- C) De adelaar zag er anders uit dan de kippen.
- D) De adelaar bewees dat hij gelijk had.

9. Waarom nam de vriend van de boer de adelaar mee naar de hoge bergen om hem te laten vliegen?
 Geef **twee** redenen.

1).....

2).....

10. Zoek woorden in de tekst die je vertellen hoe mooi de lucht was toen de zon opkwam en schrijf die hieronder over.

.....

11. Waarom was de opkomende zon belangrijk voor het verhaal?

- A) De zon wekte het instinct van de adelaar om te vliegen.
- B) De zon heerste over de hemel.

C) De zon verwarmde de veren van de adelaar.

D) De zon verlichtte de bergpaden.

12. Je komt er achter wat voor iemand de vriend van de boer was door de dingen die hij deed.

Beschrijf wat voor soort mens hij was en geef hiervan een voorbeeld: Wat deed hij waardoor dit blijkt?

.....

.....

.....

.....

BROCHURE: Ontdek het plezier van wandelen!

Ben je op zoek naar iets leuks en interessants om te doen, thuis of tijdens je vakantie? Een van de beste manieren om van de natuur te genieten is wandelen, vooral een dagwandeling is erg populair. Het kost niet veel tijd en je hebt er niet veel speciale spullen voor nodig.

Voorbereidingen voor een dag wandelen:

- Kies een plek uit die jou leuk en interessant lijkt. Wanneer je met een groep gaat, vraag eerst iedereen in die groep wat zij graag zouden willen.
- Zoek uit wat de totale afstand van de wandeling is, en hoe lang dit ongeveer gaat duren.
- Bekijk het weerbericht en de verwachting voor die dag. Zorg dat je de juiste kleding aan hebt tijdens het wandelen.
- Neem zo min mogelijk mee. Zorg dat je geen onnodige spullen mee neemt tijdens het wandelen (zie hieronder).

Wat je mee moet nemen:

- Meer dan genoeg water – zodat je geen dorst krijgt
- Eten – energierepen, of neem een picknickmaaltijd mee
- Eerstehulpdoos – voor blaren, schaafwonden en schrammen
- Insectenwerend middel – om tegen beten te beschermen (bijvoorbeeld van teken, bijen, muggen en vliegen).
- Extra sokken – voeten kunnen nat worden.
- Fluitje – belangrijk als je alleen gaat, drie korte fluitsignalen betekent dat je in moeilijkheden zit en je hulp nodig hebt.
- Kaart en kompas – erg belangrijk bij verre wandeltochten.

Veiligheid tijdens je wandeltocht:

- **Vertrek vroeg.** Zo heb je meer dan genoeg tijd om van je wandeltocht te genieten en toch nog voor het donker terug te zijn.
- **Blijf op de wandelpaden.** Tenzij je het gebied kent.

- **Doe rustig aan.** Loop niet te snel zodat je je energie kunt sparen. Als je met een groep bent, houd dan het tempo van de langzaamste deelnemer aan.
- **Kijk goed uit waar je loopt.** Pas op voor dingen waar je over kunt struikelen, zoals losse stenen, bergen bladeren en stokken. Wees voorzichtig als het ergens glad is. Als je het water in moet, zorg dan dat je weet hoe diep het is.
- **Kijk uit voor dieren in het wild.** Kijk goed uit waar je je voeten neerzet, als je stokken of stenen opraapt en voordat je ergens op gaat zitten. Ga nooit op dieren in het wild af. Ze zien er misschien lief en ongevaarlijk uit, maar kunnen onvoorspelbaar zijn en hun territorium willen beschermen.

BELANGRIJK: Vertel iemand waar je gaat wandelen en wanneer je denkt terug te zijn. Dit kan van pas komen als er iets gebeurt en je in moeilijkheden raakt. Laat het hem of haar weten als je terug bent.

Het meest belangrijke is om plezier te hebben tijdens je wandeling. Geniet van de natuur. Kijk naar al het interessante om je heen. Probeer nieuwe plekken, planten en dieren te ontdekken. Waardeer de schoonheid van het land en de natuur, terwijl je ondertussen goed en gezond beweegt!

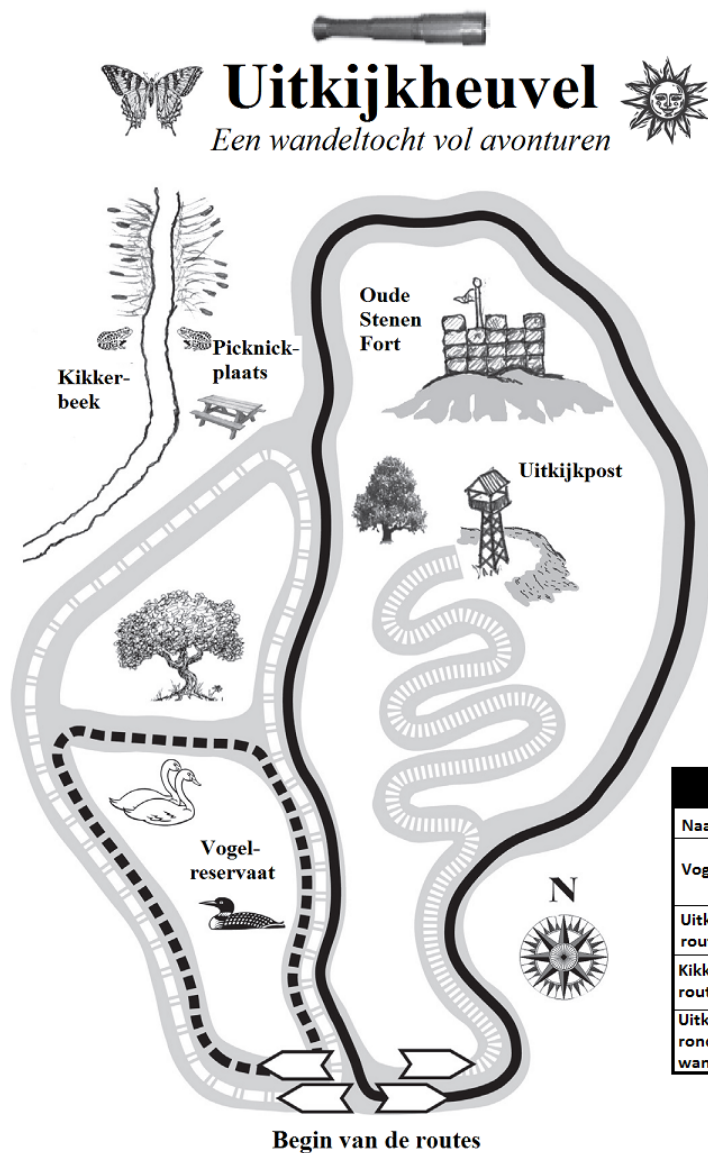
Dagwandelingen zijn leuk en gezond!

Jij bent de baas! Je kunt zelf kiezen waar je heen gaat, hoe lang je er over doet, en hoe snel je wilt wandelen. Je kunt rustig wandelen en genieten, of jezelf uitdagen met moeilijke en steile wandelroutes. De keuze is aan jou!

Ontdek nieuwe interessante dingen! Wandelen brengt je op plekken waar je normaal niet makkelijk komt. Je kunt naar prachtige plekken wandelen om spectaculaire uitzichten te zien. Je kunt ook naar afgelegen gebieden waar je misschien verborgen valleien, watervallen of grotten vindt. Wandelen geeft je de kans om nieuwe planten, vogels en dieren te zien die in het wild leven. Misschien vind je zelfs oude gebouwen of andere dingen van mensen die vroeger leefden.

Blijf fit! Wandelen is een uitstekende manier om te bewegen, en dus is regelmatig wandelen een goede manier om gezond te blijven. Tijdens het wandelen heb je ook tijd om na te denken en kan het dus ontspannend zijn. Wandelen is ook een goede manier om tijd met je vrienden of familie door te brengen, of om wat tijd voor jezelf te hebben om te studeren terwijl je van de natuur geniet.

Ontdek de uitkijkheuvel! De kaart en legenda laten je zien welke wandelroutes het beste passen bij jouw interesse, en laten zien wat je tijdens het wandelen kunt tegenkomen. Als je besluit te gaan wandelen, geeft dit je een goed idee over alle dagwandelingen bij jou in de buurt.



Kies de route!
Maak gebruik van onze voorstellen,
of maak je eigen route.

Legenda				
Naam route	Route	Duur	Niveau	Beschrijving
Vogelpad	■ ■ ■	2 uur	makkelijk, geschikt voor rolstoelen	Rondwandeling om het vogelreservaat
Uitkijkpost-route		2 - 2,5 uur	Moeilijk	Beklim de Uitkijkheuvel en bekijk het uitzicht
Kikkerbeek-route	—	3 uur	Normaal	Wandeling naar picknickplaats bij de Kikkerbeek
Uitkijkheuvel rondwandeling	— — —	5 uur	Normaal	Wandeling rondom De Uitkijkheuvel naar het Oude Stenen Fort

VRAGEN ‘Ontdek het plezier van wandelen!’

1. Wat is de **belangrijkste** boodschap die je in de brochure krijgt over wandelen?

- A) Het is duur en gevaarlijk.
- B) Het is de beste manier om dieren te zien.
- C) Het is gezond en leuk.
- D) Het is alleen iets voor specialisten.

2. Noem **twee** interessante dingen die je volgens de brochure kunt zien tijdens een wandeltocht.

1).....
.....

2).....
.....

3. Wat zijn twee dingen waar je volgens de brochure aan moet denken als je met een **groep** gaat wandelen?

1).....
.....

2).....
.....

4. In welk gedeelte van de brochure staat dat je kleding moet dragen die past bij de weersomstandigheden?

- A) Ontdek hoe leuk wandelen is
- B) Plan je wandeltocht
- C) Wat je mee moet nemen
- D) Veiligheid tijdens je wandeltocht

Kijk naar het gedeelte ‘Wat je mee moet nemen’. Gebruik dit om vraag 5 en 6 te beantwoorden.

5. Waarom moet je extra sokken meenemen op je wandeltocht?

- A) voeten kunnen nat worden
- B) weer kan koud worden

C) in geval van blaren

D) voor een vriend

6. Wat moet je doen als je tijdens je wandeltocht in moeilijkheden komt?

A) een energiereep eten

B) drie keer op je fluitje blazen

C) meer insectenwerend middel opsmeren

D) zo hard je kunt om hulp roepen

Kijk naar het gedeelte ‘Veiligheid tijdens je wandeltocht’. Gebruik dit om vraag 7 en 8 te beantwoorden.

7. Wat moet je doen om te voorkomen dat je te gauw moe wordt?

A) vroeg vertrekken

B) op de wandelpaden blijven

C) het rustig aan doen

D) uitkijken waar je loopt

8. Waarom is het belangrijk om tegen iemand te zeggen wanneer je denkt terug te zijn van je wandeltocht?

.....
.....

.....
.....

Gebruik de informatie over de wandeltochten bij ‘De Uitzichtheuvel’ om vraag 9 tot en met 12 te beantwoorden.

9. Welke route zou je kiezen als je de kortste wandeltocht wilt maken?

A) Vogelpad

B) Uitzichtpost-route

C) Kikkerbeek-route

D) Uitkijkheuvel-rondwandeling

10. Welke mensen zouden het meest geschikt zijn om de Uitkijkpostroute te doen?

A) mensen die haast hebben

B) mensen met kleine kinderen

C) mensen die graag naar vogels kijken

D) mensen die fit en sterk zijn

11. Noem twee dingen die je te weten kunt komen als je de legenda van de kaart bestudeert.

1)

.....
.....

2)

.....
.....

12. Gebruik de kaart en de legenda van De Uitkijkheuvel om een wandeltocht te plannen. Zet een kruisje bij de wandeltocht die je zou kiezen

_____ Vogelpad

_____ Uitkijkpost-route

_____ Kikkerbeek-route

_____ Uitkijkheuvel – rondwandeling

Geef aan de hand van de brochure **twee** redenen waarom je deze route hebt gekozen:

1)

.....
.....

2)

.....
.....

Hoe leuk vond je het verhaal ‘Vlieg, adelaar, vlieg?’

Maak één rondje zwart.



Ik vond het erg leuk ----- ☐



Ik vond het een beetje leuk ----- ☐



Ik vond het niet zo leuk ----- ☐



Ik vond het helemaal niet leuk – ☐

Hoe leuk vond je het verhaal Ontdek hoe leuk wandelen is?

Maak één rondje zwart.



Ik vond het erg leuk ----- ☐



Ik vond het een beetje leuk ----- ☐



Ik vond het niet zo leuk ----- ☐



Ik vond het helemaal niet leuk - ☐

Appendix 2: PISA test**LEESTOETS**

VOORNAAM:
ACHTERNAAM:
KLAS:
GEBOORTEDATUM: DAG/ MAAND / JAAR
.....

VEILIGHEID VAN MOBIELE TELEFOONS

Zijn mobiele telefoons gevaarlijk?

Ja	Nee
1. Radiogolven die afgegeven worden door mobiele telefoons kunnen lichaamssweefsel opwarmen, met schadelijke gevolgen 2. Magnetische velden die veroorzaakt worden door mobiele telefoons kunnen de manier aantasten waarop je lichaamcellen werken. 3. Mensen die lange gesprekken voeren met mobiele telefoons klagen soms over vermoeidheid, hoofdpijn en concentratieverlies. 4. Gebruikers van mobiele telefoons hebben 2,5 keer zoveel kans om kanker te krijgen in hersengebieden bij het oor dat in contact staat met het mobieltje. 5. Het Internationaal Bureau voor Kankeronderzoek heeft een verband gevonden tussen jeugdanker en hoogspanningsdraden. Net als mobiele telefoons zenden hoogspanningsdraden ook straling uit. 6. Radiofrequentiegolven die lijken op die in mobiele telefoons veranderden het genenpatroon in draadwormen.	Radiogolven zijn niet sterk genoeg om door warmte schade te veroorzaken aan het lichaam. De magnetische velden zijn ongelooflijk klein en hebben dus waarschijnlijk geen effect op de cellen in ons lichaam. Deze effecten zijn in laboratoriumomstandigheden nooit waargenomen en komen misschien door andere factoren in de moderne levensstijl. Onderzoekers erkennen dat het onduidelijk is of deze toename te maken heeft met het gebruik van mobiele telefoons De straling die door hoogspanningsdraden veroorzaakt wordt, is een ander soort straling, met veel meer energie dan die van mobiele telefoons afkomt. Wormen zijn geen mensen, het is dus helemaal niet zeker dat onze hersencellen op dezelfde manier zullen reageren.

Als je een mobiele telefoon gebruikt...

Wel doen:	Niet doen:
Houd de gesprekken kort.	Gebruik je mobiele telefoon niet als je slechte ontvangst hebt, want dan heeft de telefoon meer energie nodig om met het basisstation te communiceren en worden er dus meer radiogolven uitgezonden.
Houd de telefoon bij je lichaam vandaan als die op stand-by staat.	Koop geen mobiele telefoon met een hoge “SAR”-waarde¹. Dat betekent dat die meer straling uitzendt.
Koop een mobiele telefoon met een lange “gesprekstijd”. Deze is efficiënter en zendt minder krachtige straling uit.	Koop geen beschermende snufjes tenzij ze onafhankelijk getest zijn.

Hoofdpunten:

- Eind jaren 90 zijn er tegenstrijdige berichten verschenen over de gezondheidsrisico's van mobiele telefoons.
- Miljoenen euro's zijn er nu geïnvesteerd in wetenschappelijk onderzoek om de effecten van mobiele telefoons te onderzoeken.
- Doordat het aantal gebruikers van mobiele telefoons ontzettend hoog is, kunnen zelfs kleine nadelige effecten op de gezondheid grote gevolgen hebben voor de volksgezondheid.
- In 2000 werden er in het Stewartrapport (een Engels rapport) geen gezondheidsproblemen gevonden die veroorzaakt werden door mobiele telefoons, maar er werd vooral jongeren wel aangeraden om voorzichtig te zijn totdat er meer onderzoek was gedaan. In een vervolgrapport uit 2004 werd dit bevestigd.

VRAGEN

Vraag 1:

Wat is het doel van de *Hoofdpunten*?

A Om de gevaren te beschrijven van het gebruik van mobiele telefoons.

¹ SAR (specific absorption rate) is een manier om te meten hoeveel elektromagnetische straling er door lichaamsweefsel wordt opgenomen tijdens het gebruik van een mobiele telefoon.

- B Om duidelijk te maken dat de veiligheid van mobiele telefoons nog steeds vragen oproept.
- C Om de voorzorgsmaatregelen te beschrijven voor het gebruik van mobiele telefoons.
- D Om duidelijk te maken dat er geen gezondheidsproblemen gevonden zijn die veroorzaakt worden door mobiele telefoons.

Vraag 2:

“Het is moeilijk om aan te tonen dat het één met zekerheid het ander heeft veroorzaakt.” Wat is het verband tussen deze informatie en de uitspraken bij Punt 4 Ja en Nee in de tabel Zijn mobiele telefoons gevaarlijk?

- A Dit ondersteunt de bewering onder “Ja”, maar bewijst die niet.
- B Dit bewijst de bewering onder “Ja”.
- C Dit ondersteunt de bewering onder “Nee”, maar bewijst die niet.
- D Dit laat zien dat de bewering onder “Nee” fout is.

Vraag 3:

Als de hersengebieden bij het oor die niet in contact staan met het mobieltje 10% risico hebben om kanker te ontwikkelen, hoeveel procent risico heeft het gebied bij het oor dan dat wel in contact staat met het mobieltje?

- A 250%
- B 25%
- C 12,5%
- D 2,5%

Vraag 4:

Welk van de onderstaande uitspraken ondersteunt Punt 6, nee in de tabel over de veiligheid van mobiele telefoons?

- A Wat op dieren is getest geldt niet altijd voor mensen.
- B Radiofrequentiegolven hoeven niet altijd even gevaarlijk te zijn.
- C Verandering in het genenpatroon van draadwormen is niet wetenschappelijk bewezen.

- D Radiofrequentiegolven hebben meer schadelijke gevolgen op onze hersencellen dan op andere levende wezens.

Vraag 5:

Welk van de onderstaande conclusies komen overeen met de hoofdpunten die zijn genoemd?

- A Voor 2000 dachten de mensen dat mobiele telefoons geen schadelijke gevolgen hadden voor de gezondheid van de mens.
- B Begin jaren 2000 waren er rapporten die gedeelde meningen hadden over de gezondheidsproblemen die de mobiele telefoons veroorzaken.
- C Volgens de rapporten zijn de gezondheidsproblemen die ontstaan door mobiele telefoons steeds gestegen.
- D Het budget dat is toegewezen om de effecten van de mobiele telefoons te onderzoeken is niet voldoende.

Vraag 6:

Wat kan er gezegd worden over de rapporten die zijn gepubliceerd in 2000 en 2004?

- A Er zit veel tijd tussen de rapporten, hierdoor zijn de resultaten ook verschillend.
- B Het rapport van 2004 concludeert dat er meer onderzoek nodig is.
- C Het rapport van Stewart heeft vastgesteld dat mobiele telefoons gevaarlijk zijn voor jongeren.
- D De rapporten 2000 en 2004 hebben allebei aanbevolen om voorzorgmaatregelen te nemen.

Vraag 7:

Waarom is het verwerpelijk om een mobiele telefoon met een hoge SAR-waarde aan te schaffen?

- A Het is nog niet wetenschappelijk bewezen dat ze onschadelijk zijn.
- B De stralingen die worden uitgezonden zijn schadelijk voor de gezondheid.
- C Het kan door middel van hitte schade toebrengen aan het menselijke lichaam.

Vraag 8:

Waar gaat deze tekst over?

- A Effecten van mobiele telefoons op de gezondheid van mensen.
- B Effecten van technologie op het sociaal leven van mensen.
- C Het tekort aan onderzoek over de nadelige gevolgen van mobiele telefoons.
- D Het gebrek aan budget dat is toegewezen voor wetenschappelijke onderzoek.

BERICHT OVER BLOEDDONATIE



- Bloeddonatie is van cruciaal belang. Er bestaat geen enkel product dat menselijk bloed geheel kan vervangen. Bloeddonatie is dus niet inwisselbaar en van cruciaal belang voor het redden van mensenlevens. In Frankrijk krijgen jaarlijks 500.000 patiënten een bloedtransfusie.
- De instrumenten voor het afnemen van bloed zijn steriel en worden slechts eenmaal gebruikt (naalden, buisjes, zakken).
- Bloed geven is absoluut ongevaarlijk

Bloeddonatie:

Dit is de bekendste vorm van donatie en duurt 45 minuten tot 1 uur.

Er wordt een zak van 450 ml afgenomen en daarnaast een aantal kleine monsters voor het uitvoeren van tests en controles.

- Een man kan vijf keer per jaar bloed geven, een vrouw drie keer.
- Donoren moeten tussen de 18 en 65 jaar oud zijn.

Tussen twee donaties is een interval van 8 weken verplicht.

Vraag 8:

Een achttienjarige vrouw die twee keer bloed heeft gegeven in de laatste twaalf maanden wil nog een keer bloed geven. Aan welke voorwaarde moet ze volgens de tekst “Bericht over bloeddonatie” voldoen om dat te mogen doen?

.....

.....

.....

.....

.....

Vraag 9:

Wat maakt bloeddonatie de bekendste vorm van donatie?

- A De ziekenhuizen hebben de juiste voorwaarden en mogelijkheden gecreëerd.
- B Het proces van bloeddonoratie verloopt gemakkelijk.
- C Het kost je maar 45 minuten tot een uur.
- D Bloeddonoratie is erg belangrijk voor de mens.

Vraag 10:

Waarom worden er volgens jou, naast een zak bloed, ook kleine monsters met bloed afgenomen?

Noem minstens twee redenen.

.....

.....

.....

.....

.....

DE VREK EN ZIJN GOUD

(Een fabel van Aesopus)

Een vrek verkocht alles wat hij bezat en kocht een klomp goud, die hij begroef in een gat in de grond naast een oude muur. Hij ging er iedere dag naar kijken. Eén van zijn werklieden, die het was opgevallen dat hij de plek regelmatig bezocht, besloot hem in de gaten te houden. De arbeider ontdekte al gauw het geheim van de verborgen schat, groef de aarde uit, stuitte op de klomp goud en stal deze. Toen de vrek bij zijn volgende bezoek zag dat het gat leeg was, rukte hij de haren uit zijn hoofd en barstte in gejammer uit. Een buurman die zag dat hij overmand was door verdriet en hoorde wat de oorzaak ervan was, zei: "Treur niet langer, neem liever een steen en leg die in het gat, en stel je voor dat het goud daar nog steeds ligt. Daar zul je evenveel plezier van hebben, want toen het goud er nog lag, bezat je het niet, want je deed er helemaal niets mee."

Gebruik de fabel "De vrek en zijn goud" hierboven om onderstaande vragen te beantwoorden

Vraag 11:

Hoe kwam de vrek aan de klomp goud?

.....

.....

.....

.....

.....

Vraag 12:

Hoe denk je dat de vrek zich na de gebeurtenis heeft gevoelt?

- A Spijtig
- B Onstandvastig/inconsequent
- C Boos
- D Twijfelachtig