Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

The differences of educational outcomes between the four main ethnic minorities in the Netherlands explained

The influence of language skills and cultural capital

By Thu Nhu Thi Nguyen: ANR 197522/ SNR 2021926

Supervisor:
Tom Swelsen

Second reader:
Ruud Luijkx

August 23rd, 2019

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

Preface

After I graduated in 2017 at Fontys Social Studies, I did not know what I wanted to do. I spent the following six months figuring out what exactly I wanted to do, even though to this day I still do not know what I want to do. During that time I found the master Global Management of Social Issues and since I was a social studies student, I was interested in the sociology track of this master. I quickly signed up for the Pre-master Sociology and now one and half years later, I am finishing my master. Starting from my pre-master to now, it has not been easy but somehow I managed to finish my thesis. During the process of writing my thesis, I want to thank Tom Swelsen, for his help and advice. I do not think I would have made it this far without it. I also want to thank my friends and family, for always supporting me and helping me whenever they could. I especially want to thank Lamia Hamoda for being there every step of the way. I do not know where I would be without her. We have finished the pre-master together and had our ups and downs during the past year and a half, particularly during our thesis but we managed to survive until now.

Thank you everyone!

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

Abstract

The goal of this paper was to answer the question to what extent are there differences in educational outcomes between ethnic minorities and natives, between the four major ethnic groups in the Netherlands and how these explain the differences in educational outcomes. To test my research question and my mechanisms, cultural capital and language skills. The hypotheses were: the native Dutch children reach higher educational levels than the ethnic minority children as they have more cultural and language skills than the ethnic minorities (1) and the Surinamese and Dutch Antillean group have more educational attainment than the Moroccan and Turkish group as they have more cultural and language skills than Moroccan and Turkish group (2). The research used Cohort Research Education Careers among students aged 5 to 18 years 2013/2014 (COOL5-18). The findings were that cultural and language skills have a negative effect of on educational outcome for all ethnic groups. The ethnic minority students have a higher educational outcome than the native Dutch students and the Surinamese and Antillean students have a higher educational outcome than the Moroccan and Turkish student.

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

Table of contents

Introduction

There are several studies that revealed the importance of parental level of education and occupational status for the success of a child's educational career (Shavit & Blossfeld, 1993; Kloosterman, Ruiter, de Graaf & Kraaykamp, 2009; Tieben & Wolbers, 2010; Kraaykamp, Tolsma & Wolbers, 2013; Johnstonbaugh, 2018). Children with high parental socioeconomic status (SES) have a higher chance of getting high educational attainment. Parental SES is usually measured by educational level and occupational status, the higher they are, the more parental SES they have. However, this research will focus on the cultural and social capital of the parents as the higher their SES, the more capitals they have. The cultural capital are for example cultural and linguistic competences that parents can transfer to their children (Bourdieu, 1977; Bourdieu & Passeron, 1997). The social capital is the extent and quality of social networks and connections of the parents (Bourdieu 1986).

The ethnic minority households have a higher chance of being low SES households in the Netherlands as most of them immigrated from Turkey, Morocco and (former) Dutch colonies because of economic and/or political reasons (Stevens, Clycq, Timmerman & Van Houtte, 2011). Most immigrants have a lower educational background than Native Dutch (Heath & Brinbaum, 2007; Steven et al, 2011). This means that they have less capital to transfer to their children which could have a negative influence on their educational outcomes.

The Dutch society and government have noticed the educational differences between native Dutch students and ethnic minority students as they often have a lower education than native Dutch students, which caused researchers to try and find different reasons why there is a difference (Pels, 1991; Karsten, 1994; van de Werfhorst & van Tuberbergen, 2007; Tolsma, Coenders & Lubbers, 2007a, 2007b; Fleischmann & de Haas, 2014). For example, Tolsma et al (2007a, 2007b) argue that there are differences in education based on their ethnic

background. They found, in comparison with native Dutch students, most ethnic minorities will enroll in lower educational tracks and less in university education. Furthermore, there is an ethnic segregation in the educational system in the Netherlands, particularly in primary education due to the fact everyone has the right to choose their own school and they are allowed to follow education that fits with their beliefs and religious convictions (Karsten, 1994). Islamic children can go to Islamic schools, which will only stimulate the ethnic segregation in education further. Since those children have limited contact with native Dutch as a consequence, and will retain their own language and culture, this will limit their possibilities for educational attainment (van der Laan Bouma-Doff, 2007). Moreover, ethnic minority children have less family resources than native Dutch children, as their parents have less knowledge about the Dutch school system, they often do not speak Dutch at home, parents are often not helping them with homework, and they cannot talk about school as easily as native Dutch students (van de Werfhorst & van Tuberbergen, 2007). In line with this, Fleischmann and de Haas (2014) argue ethnic minority parental and native Dutch parental background are widely different as most ethnic minority parents are from rural areas, they often have an educational level not higher than primary schooling (proximately 21%) (Nederlands Jeugdinstituut, 2009). Furthermore, most of them are illiterate, especially Moroccan mothers (Fleischmann & de Haas, 2014). According to the statistics of 2016, a quarter of the ethnic minority households (26%) are low parental SES households compared to native Dutch households (6%) (Centraal Bureau voor de Statistiek, 2018). These ethnical differences can explain why ethnic minority student have a smaller success rate in graduating as they have less parental resources to help them with their studies. Native Dutch students of vocational college (MBO) often succeed in getting their diploma more often than them. Even third generation ethnic minority students still have a backlog in their studies, this did not decrease over the generations. It seems like the differences between the Native Dutch and

ethnic minorities does not decrease over time and/or generations (Inspectorate of Education of the Netherlands, 2017). Although, most studies (e.g Pels, 1991; Karsten, 1994; van de Werfhorst & van Tuberbergen, 2007; Tolsma, Coenders & Lubbers, 2007a, 2007b; Fleischmann & de Haas, 2014) focus on the differences between the natives Dutch and ethnic minority students, there are a few studies focusing on the differences between the ethnic minority groups in regards to the educational inequality (Wolbers & Driessen, 1996; Herweijer, 2009; Stevens, et al., 2011). For example, Wolbers and Driessen (1996) found that the effects of SES, social and cultural capital on native Dutch children, have the same effect for the ethnic minority children with similar SES and capitals. However, not a lot of research has been conducted on the educational differences *between* ethnic minority groups. According to a research from the *Nederlands Jeugdinstituut* (2013) that focused on the ethnical differences in the Netherlands found that the Moroccan and Turkish parents have lower educational attainment than the Surinamese and Antillean parents as only 35 to 40 percent of them have an elementary diploma whereas the Surinamese and Antillean parents only have 15 percent stopped school after obtaining an elementary diploma. Among the Moroccan and Turkish parents mostly the females are low educated whereas for the Surinamese and Antillean parents the females are higher educated than the males. However, this research will take a closer look at the effect of parental cultural and social on the educational outcome of the children. Children with more capitals have lower chances of dropping out of high school, poverty, health, unemployment, and psychological problems (Nederlands Jeugdinstituut, 2009).

Therefore, this research will focus on the educational differences between the children of the four major ethnic minority groups in the Netherlands (as 22.6% of the population have an immigrant background). In the Netherlands, the largest ethnic minority groups are Turkish (10.4%), Moroccan (10.2%), Surinamese (9.1%), and Antillean (3.9%) (Centraal Bureau

Stastieken Statline, nd). However, despite the high percentage of immigrants not enough research has been conducted regards to the differences of educational attainment between these four groups. Most of the ethnic minority children have a disadvantage in learning the Dutch language as it is most likely their second language and their parents do not speak the Dutch language very well either (Herweijer, 2009). As a result, they might have to follow a lower educational level than they actually can handle.

It would be interesting to see if there is a difference between the groups since students with a Turkish and a Moroccan background might have a bigger disadvantage in learning the Dutch language than children with a Surinamese and Antillean background as the latter groups used to be part of the Dutch colonies so their parents already speak the Dutch language (van de Werfhorst & van Tuberbergen, 2007). Furthermore, the parents of Moroccan and Turkish have a different cultural capital than the Surinamese and Antillean (Fleischmann & de Haas 2014). Additionally, the Moroccan and Turkish parents will most likely transfer their own culture, such as their language, norms and values, first to their children which would mean that they will have to learn the Dutch culture at school while the Surinamese and Antillean already learned it at home (Fleischmann & de Haas 2014). Lastly, the social capital of the Moroccan and Turkish households are probably smaller as well as they do not speak the Dutch language well this would mean that the children will learn their own language first causing the development of their Dutch language skills to fall behind of the other two groups (van de Werfhorst & van Tuberbergen, 2007). Therefore, this research will look into if the Surinamese and Antilleans students do have an advantage compared to the Turkish and Moroccan students based on the social and cultural capital of the parents. Thus, the research question is: *To what extent are there differences in educational outcomes between ethnic minorities and natives (1) and between the four major ethnic groups (2) in the Netherlands and how can these differences be explained?*

Theories and hypotheses

In this chapter I will write the theoretical framework which will lead me to six hypotheses. I want to research the relationship between educational attainment in the Netherlands and the extent of the differences in cultural capital and social capital of the four ethnic groups. I will first explain the differences in educational attainment between the native Dutch and the ethnic minority group. Secondly, I will try to explain the differences in educational outcomes between the four ethnic minority groups. I will use the theories of the cultural and social capital as explanations for the differences between the two groups.

The two capitals

According to Boudon (1974), there is a distinction between different kinds of effects of social background. There are two distinctions: primary and secondary effects. Primary effects are what the family or parents transfer to their children, this can be through genetics, socio-cultural resources, and environmental conditions. These have an influence on the children's class backgrounds and their academic performance. Secondary effects are the differences of educational choices that children from differing class backgrounds make that their previous educational performance allows them to. This research will focus on the cultural and social capital of the parents.

Cultural capital

Cultural capital according to Bourdieu (1977) and Bourdieu and Passeron (1997), is the capital that parents can transfer to their children, such as cultural and linguistic competences. They argue that higher class children have more competences compared to the lower class children. They have higher chances to succeed in school as the base of what is taught in

school is the higher class culture. In Bourdieu's earlier work (1977) he argues that next to linguistic competencies, preferences, orientations, and manners, are included in cultural capital as well. He calls it 'subtle modalities in the relationship to culture and language' (Bourdieu, 1977, p. 82). Furthermore, parents with high educational background know the requirements for high educational level since they had to have certain requirements themselves, whereas, parents with low educational background do not and will probably overestimate these requirements. So parents, who have a high educational level themselves, can be realistic and will know if their children can make it (Erikson & Jonsson, 1996).

Social capital

The social capital of the parents matters in the education of their children as well. If parents have certain social status, their children will most likely follow their footsteps (Coleman, 1988). This means if the parents have high social status, their children will most likely have the same social status as them. This is the same for low social status households, the children will most likely retain the same social status. Furthermore, social capital is also the extent and quality of social networks and connections of the parents (Bourdieu, 1986). They can use those to help their children to attain educational benefits. Since this research mostly focusses on the ethnic minorities and the language skills for them are an important form of social capital as their (lack of) language skills will determine how their social network will be, I will call it language skills from now on.

Native Dutch and ethnic minority groups

In the next paragraphs, I will explain the differences between the native Dutch and the ethnic minorities. Based on the theories mentioned above, the native Dutch parents can transfer the cultural and linguistic competences to their children as they themselves grew up with them.

Since they were born they can already speak the Dutch language fluently and they already know the Dutch culture as they grew up in the Netherlands and it is their history (Vedder, 2005). Therefore, their cultural capital is bigger than the cultural capital of the ethnic minority as they have language barriers to overcome (Vedder, 2005; van de Werfhorst & van Tuberbergen, 2007). Moreover, as they differ in culture, the native Dutch culture is more individualistic culture whereas the most ethnic minorities have a collectivist culture (as cited in Hofstede, 2011), hardly speak the Dutch language and do not interact with native Dutch people so they might not understand the Dutch culture and school system (Forum, 2008). They might even reject adapting to society so they and their children will be surrounded by their own people and culture. This would mean that the children will have a cultural barrier at school (Forum, 2008). Furthermore, they have difficulties with overcoming their disadvantaged socio-economic position and are met with barriers when they try e.g. language (Roelandt, Martens & Veenman, 1990; Van Ours & Veenmeen, 2002). Therefore, my first hypothesis is that native Dutch children will reach higher educational levels than the ethnic minority children.

Cultural capital

Van de Werfhorst and van Tubergen (2007) argue that ethnic minority children have less family resources than native Dutch children, as their parents have less knowledge about the Dutch school system, they often do not speak Dutch at home, parents are often not helping them with homework, and they cannot talk about school as easily as native Dutch students. In line with this, Fleischmann and de Haas (2014) argue that parental involvement contribute to ethnic educational inequality as ethnic minority parents are often less involved with their children's schooling than native Dutch parents. Parental involvement can be separated into two situations, at home (e.g. reading to the child or monitoring his or her homework) or at school (e.g. contacts with teachers and volunteering for school). Furthermore, there is a

difference in the way ethnic minority children and native Dutch children are raised and they have different emphasizes when it comes to school. For example, Moroccan families find obedience and discipline important and they do not want to their children develop own initiative. Native Dutch parents and primary schools, however, try to stimulate individuality, independence and want children to develop the desire to explore the world. Even their way of learning things at schools are different. Moroccan children will learn how to memorize and learn things by heart, on the other hand, Dutch parents and schools emphasizes on critical questioning and understanding (Pels, 1991). Therefore, I expect that the native Dutch children are more likely to reach higher educational levels as they have more cultural capital than the ethnic minorities (hypothesis 1a).

Language skills

Fleischmann and de Haas (2014) argue ethnic minority parental and native Dutch parental background are widely different as most ethnic minority parent are from rural areas, they often have an education level not higher than primary schooling, and most of them are illiterate, especially Moroccan mothers. Compared to ethnic minority parents, native Dutch parents help their children with homework more, they often attend the parent nights and talking about school within the family (Driessen, 2002). Furthermore, most parents of the ethnic minority children have a low education level, they do not realize the importance of education to succeed later in life. Therefore, they are less likely to emphasis on education, whereas, native Dutch parents know the importance of education and they know the requirements to achieve a high educational level since they had to have certain requirements themselves. So they can be realistic and will know if their children can make it and how to help their children (Erikson & Jonsson, 1996). However, Klatter-Falmer (1996), Ledoux (1996), and Veenman (1996), found that the lack of knowledge of the Dutch language and

education system prevent parents of ethnic minority children to offer proper support. In line with this, the support of parents of ethnic minorities' children do not have a strong influence on their educational outcomes as the support from family members, peers or teachers seemed more influential since they understand the Dutch educational system better and they can give as advice and practical help, while the parents will mostly offer guidance and stimulation (Crul, 1996, 1999, 2000). While native Dutch parents have more of as a role model, they interact more with the school of their children, such as they follow the progress at school and talk with the school and teachers (Driessen, Smit & Sleegers, 2004). Compared to the ethnic minority parents they have a more direct influence in the educational performance of their children. Therefore, I expect that the native Dutch children are more likely to reach higher educational levels as they have more social capital than the ethnic minorities (hypothesis 1b).

Differences in educational levels between the ethnic minority groups

Wolbers and Driessen (1996) found that ethnic minority students with high educated parents, were given a higher advice for secondary tracks compared to ethnic minority students with low educated parents. They also found that the occupational status of ethnic minority parents influence the success of their educational paths. The higher the occupational status, the bigger the success of the educational path, thus their research found that the social capital is more influential for ethnic minority students. The Moroccan and Turkish parents have a lower socioeconomic positions in the Netherlands than the Dutch Antillean families (Heath & Brinbaum, 2007). And the Moroccan and Turkish parents have more linguistic and cultural barriers than Surinamese and Dutch Antillean (Vedder, 2005). Therefore, my second hypothesis is that the Surinamese and Dutch Antillean group have more educational attainment than the Moroccan and Turkish group (hypothesis 2).

Cultural capital

In the case of the Moroccan and Turkish people, the Dutch government thought that the Turkish and Moroccan workers would move back to their home country after their contract ended so they were supported by the government to maintain their culture and language (Vedder, 2005). Thus, they lived in neighbourhoods near their work with others from their country and had no reason to adjust to the Dutch culture and learn the language (Vedder, 2005). This was confirmed in the research of Jongenburger and Aarssen (2001). Their results revealed that Surinamese students are indeed more familiar with the Dutch language and culture than the Turkish and Moroccan students. Furthermore, some forms of behavior that are labeled as aggressive by Dutch children, however, for the African-Caribbean boys those are socially competent. This means that while they do have some similar cultural aspects, not everything is culturally accepted by the Dutch society (Kromhout and Vedder, 1996). However, as Surinamese and the Dutch Antillean used to be part of the Dutch colonies they are familiar with the Dutch culture and they use the Dutch language in their schools as well thus the parents can transfer the Dutch linguistic and cultural competencies to their children from they are very young (Kromhout and Vedder, 1996). Whereas, Turkish and Moroccan children will most likely start learning it at school instead. This means they are culturally and linguistically behind the Surinamese and Dutch Antillean the moment they go to school so before they learn anything else they are already behind the other children. Therefore, I expect that the Surinamese and Dutch Antillean group are more likely to reach higher educational levels as they have less cultural capital differences to overcome compared to the Moroccan and Turkish group in the Netherlands (hypothesis 2a).

Language skills

Parents with a Moroccan and Turkish background have a harder time to help their children with their homework since they have a disadvantage in learning and speaking Dutch compared to the Surinamese and Dutch Antillean groups as they already speak it (Vedder, 2005). This means that they can easily help their children with homework or ask others for advice how they can help their children improve their educational performance. Whereas, the social ties of Turkish and Moroccan parents with native Dutch people are possibly hindered by cultural and linguistic barriers. This mean they cannot easily ask the teachers or other people of different ethnic to help their children to succeed in school (Herwijer, 2009). Moreover, most of the native Dutch favor the ethnic minority people that can speak and understand Dutch so while Moroccan and Turkish parents might want to connect with others they might get rejected (Forum, 2008). Additionally, their lower socio-economic positions could also reduce the possibilities to form social connection with eligible people and they might have to deal with negative attitudes of native Dutch people as well (Martinovic, van Tubergen, & Maas. 2009). This means that because of the lack of Dutch language skills the Moroccan and Turkish parents cannot form a social network with others that could help their children with their school performance, e.g. they cannot properly talk to the teachers. Therefore, I expect that the Surinamese and Dutch Antillean group are more likely to reach higher educational levels as they have less social capital differences to overcome compared to the Moroccan and Turkish group in the Netherlands (hypothesis 2b).

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

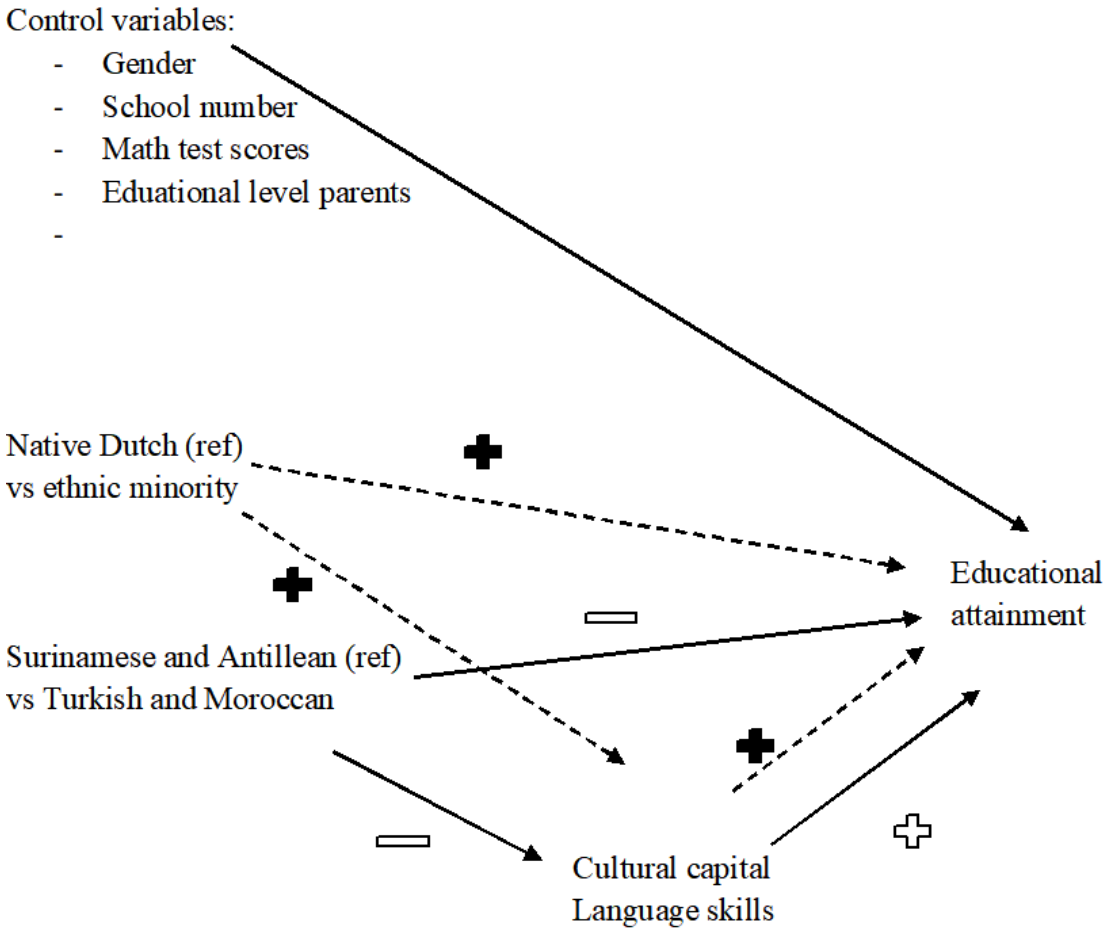

Figure 1. Conceptual model. Hypotheses native vs ethnic groups are dotted and hypotheses Moroccan and Turkish vs Surinamese and Antillean are lined.

Data and operationalization

Dataset

For this research I will use data from the third wave of *Cohort Research Education Careers among students aged 5 to 18 years 2013/2014 (COOL5-18).* The research follows students from the age five to eighteen during their school years in primary school, secondary and the MBO. Although, the dataset follows the students from age 5 to 18, this research only focusses on the students of the sixth grade (groep 8) as they are given the advice of the educational track they should follow in high school. The goal of COOL5-18 is to give a representative picture of the achievements and school careers of various categories of students. COOL5-18 has multiple measurements, therefore, it is not only possible to paint a picture of the situation at a certain moment, but the developments can also be shown. It focusses on four aspects: (1) cognitive development: knowledge and skills in English, arithmetic / mathematics and English; (2) educational careers in primary, secondary and tertiary education; (3) the development of social competences, including citizenship competences; (4) the social-emotional development. Not only the student were interviewed, their teachers, school directors, and parent were interviewed as well. They were given a questionnaire that they had to fill in. They interviewed the respondents in the second, fifth, and eighth year of primary school.

The data collection of the third wave was conducted in four phases: the first phase is the recruitment of participating schools, combined with requesting some administrative data. The second phase is the collection of numbers, names and some background data from the students in the test groups. The third phase is the test samples and simultaneous other data collections in group 2, 5 and 8. The last and fourth phase is the collection of the outflow data of group 8 and a school information list.

The school sample in the COOL study consists of two parts: a nationally representative sample (reference sample) and an additional sample of schools with a high concentration of ethnic minorities and indigenous children from lower socio-economic environments. The purpose of the reference sample was to have an accurate reflection of the total population of the primary schools. They selected the reference sample based on the type of school, province it is located in, and the degree of the urbanization of the city or town the school is located in. They made a score of the schools they selected which indicated the socio-ethnic composition of the student population of a school; the higher the score, the greater the socio-ethnic disadvantage of the school. Their reference sample had a total of 400 school and their additional sample was 150 schools. However, their total sample size in the end was 437 schools and the number of students was 28529. They had a total response rate of 71.2%. However, as this research only looks at the sixth grade the sample size is 1345.

Operationalization

Educational attainment

To measure the respondents' educational attainment, I will use the 'Information schedule outflow group 8'. The teachers had to fill this in for each student and they had to say which advice the student was given at the end of the schoolyear. The answers were as following: 'VWO', 'HAVO', 'MAVO', 'VMBO-GL', 'VMBO-KBL', 'VMBO-BBL', 'VMBO-BBL met LWOO', 'VMBO-PRO', 'still have not received the advice', and 'different advice'. The dataset has categorized 'still have not received the advice' as missing values. They have specified the 'different advice' into 'HAVO/MAVO', 'VMBO-BBL met LWOO/BBL', 'VMBO-BBL/KBL', , 'VMBO-GL', and , 'VMBO-TL'. In the end, there are 15 categories in the dataset. However, I will recode all the VMBO categories into 'VMBO' and I will keep the

other categories as they are with the lowest advice being ‘VMBO’ and the highest advice is ‘VWO’ so there are 5 categories in the end. The amount of missing for this variable is 21999.

Ethnic group

To measure their ethnicity I will use the questionnaire for the parents and caretakers. I will use the question ‘Where were you and your parents born?’. However, I will use the country of birth of the parents and the respondent to measure their ethnicity. The questionnaire use a lot of countries, however, for this research only the Netherlands, Turkey, Morocco, Suriname or Netherlands Antilles are relevant and are selected in the data. For the Dutch ethnicity, I will only use the country of birth of the parents as there are second generation children in this research. This way they will not be grouped in the Dutch ethnicity group.

The respondent could answer with ‘the Netherlands’, ‘Morocco’, ‘Turkey’, ‘Suriname’, and Dutch Antillean’. If one of the parents were born from either of countries then their ethnicity is from that country except for the native Dutch. I have recoded the other ethnics in the dataset as missing values

If the both of the respondents answers ‘Nederland’ then I recoded it into ‘Dutch’.

If the respondents answers for one of their parents or themselves with ‘Suriname’ and if the respondents answers for one of their parents or themselves with ‘Dutch Antillean’ then I recoded it into ‘Suriname and Dutch Antillean’. However, it is possible that one of the parents might also be Turkish or Moroccan.

If the respondents answers for one of their parents or themselves with ‘Morocco’ and if the respondents answers for one of their parents or themselves with ‘Turkey’ then I recoded it into ‘Moroccan and Turkish’. After recoding this, this will be more dominant then the previous recoding so there will not be any double respondent in both groups.

The amount of missing for this variable is 1929.

Language skills of the parents

To measure their language skills, I will use the question 'To what extent do you and your partner master the Dutch language?'. This is divided into four categories: understand, speak, read, and write. For each category, they can answer with 'Not at all', 'Not well', 'Well', 'Very well', and 'Excellently'. I will compute it into a scale from one to five. The higher the score, the better their Dutch language skills.

The factor analysis for the language skills showed a communalities of 0.872 and higher and a total variance explained is 91.1%. It also showed two components, which were the language skills of the father and mother, each component had four items. The Pearson Correlation showed a correlation of at least 0.858 ($p<0.001$) for the language skills of the mother and a correlation of at least 0.768 ($p<0.001$) of the language skills of the father as shown in table 1 and 2. Lastly, the component correlation is 0.649. The reliability analysis showed a Cronbach's Alpha of 0.951 for all the items so I did not have to delete any items. However, I computed the two components together to measure the language skills of the parents and get the mean of this variable.

There are a lot missing values for this variable. This might cause for an unrepresentative and a small N. To increase the N, the mean of the valid values for the variable needs at least two items of the variable have valid values. The reason amount of missing values is because the children were given the questionnaire of the parents so that they could give it to them. Perhaps, not all of the children gave their parents the questionnaire or not a lot of parents wanted to fill in this question. Not all parents filled in the whole questionnaire either. The dataset does not provide a proper explanation for this missing.

Table 1,

Correlations between all language skills of the mother.

	Understanding Dutch	Speak Dutch	Read Dutch	Write Dutch
Understanding Dutch	1	0.933	0.913	0.858
Speak Dutch	0.933	1	0.916	0.881
Read Dutch	0.913	0.916	1	0.917
Write Dutch	0.858	0.881	0.917	1

Note: All correlations are significant at the .001 level.

Table 2.

Correlations between all language skills of the father.

	Understanding Dutch	Speak Dutch	Read Dutch	Write Dutch
Understanding Dutch	1	0.916	0.816	0.768
Speak Dutch	0.916	1	0.826	0.796
Read Dutch	0.816	0.826	1	0.919
Write Dutch	0.768	0.796	0.919	1

Note: All correlations are significant at the .001 level.

Cultural capital both parents

In order to measure the cultural capital, other researchers have used cultural activities such as reading, either book and/or newspapers (Crook, 1997; de Graaf 1986; de Graaf, De Graaf, & Kraaykamp, 2000; Sullivan, 2001). For this variable I will use the question 'how often do you and your partner…'. The sub questions are 'read a book or comic book together with your child', 'read to your child', 'go to the library with your child', talk to your child about what happened at school', 'watch a children's program with your child', and 'play a (computer)game with your child'. The answers are as following: 'Everyday', 'A couple times a week', 'A couple times in the month', and '(almost) Never'. However, I will remove answer

'Talk to your child about what happened at school' as it has more to do with their language skills than their cultural capital. I will also recode the answers going from '(almost) Never' to 'Everyday' as it would be easier to see the effect of cultural capital on educational outcome.

The factor analysis for the cultural capital showed a communalities of 0.7 and higher and a total variance explained is 61.4%. It also showed two components, which were the 'read to your child', 'go to the library with your child' and 'watch a children's program with your child', and 'play a (computer) game with your child'. Lastly, the component correlation is 0.077. Both components had two items each. However, the reliability analysis showed a Cronbach's Alpha of 0.73 after deleting three out of five items. So I deleted one component, 'watch a children's program with your child', and 'play a (computer) game with your child', to increase the Cronbach's Alpha. Secondly, the component does not really match the variable, watching television and playing games does not measure the cultural capital. The Pearson correlation of the two items, 'read to your child', 'go to the library with your child', is 0.553 ($p<0.010$). To measure the cultural capital I used the items 'read to your child' and 'go to the library with your child'. I computed them together and got the mean of them. There a lot missing values for this variable. The reason for this might be because the children were given the parental questionnaire so that they could give it to their parents. Perhaps, not all of the children gave their parents the questionnaire or not a lot of parents wanted to fill in this question. The dataset does not provide a proper explanation for this missing. In order to see if the missing values influence the effect on educational outcome, I checked crosstabs relation of cultural capital by educational outcome first with the missing values to the how it effects the educational outcome. Afterwards, I did the same thing without the missing values and there is barely a difference in educational outcome so the amount of missing values does not have a big effect on the educational outcome.

Table 3.

Correlations between all cultural capital items.

	Reading with your child	Read to your child	Go to the library with you child	Watch you program with you child	Play a game with your child
Reading with your child	1	0.553	0.107	0.08	0.088
Read to your child	0.553	1	0.034	-0.022	-0.014
Go to the library with you child	0.107	0.034	1		
Watch you program with you child	0.08	-0.022	0.022	1	0.4
Play a game with your child	0.088	-0.014	0.026	0.4	1

Note: All correlations are significant at the .010 level.

School-id

Every school that participated in this data were given a number. In the dataset, I can see how many students are from a participating school. I will use the school-id number to account for clustering.

Control variables

Gender

I will use control variables, the first one is gender. I will use 'Sex of student' to measure it. I will make dummies for gender (0 = 'female', 1= 'male'). The category *0 = 'female'* is the reference group. Men used to have an advantage in educational attainment than women, however, in recent years they have been overtaken by women. Although, this change has not happened yet in primary education as boy still have better test scores than girls, especially in mathematics while girls perform better in language. However, in the Netherlands girls are

more often in higher tracks than boys and they drop out of school less often than boys. This applies for native Dutch and ethnic minority students (Herweijer, 2009).

Educational level of both parents

My second control variable is the educational level of the parents. I will use the question 'What is your highest educational level that you and your partner have followed?'. The answers are: 'No education', '1-3 years lower primary', '4-6 years primary', '1-2 years of LBO/VBO/VMBO-practical', '3-4 years of LBO/VBO/VMBO-practical', '1-2 years of MULO/MAVO/VMBO-mixed', '3-4 years of MULO/MAVO/VMBO-mixed', '1-3 years HAVO/ HBS/ VWO/ atheneum/ gymnasium', '4-6 years HAVO/HBS/VWO/athenaeum/gymnasium', 'MBO', 'HBO', and 'University'. However, the dataset has recoded '1-3 years lower primary' and '4-6 years primary' into missing values. The researchers also recoded '1-2 years of LBO/VBO/VMBO-practical', '3-4 years of LBO/VBO/VMBO-practical', '1-2 years of MULO/MAVO/VMBO-mixed', and '3-4 years of MULO/MAVO/VMBO-mixed' into 'MAVO'. As well as '1-3 years HAVO/ HBS/ VWO/athenaeum/gymnasium', '4-6 years HAVO/ HBS/ VWO/ athenaeum/gymnasium' into 'HAVO/VWO'. They have kept the other answer as they are so there are four categories in the end; 'Max LO/BoA', 'Mac LBO/VBO', 'Max MBO', and 'HBO/WO'. The lowest educational track is 'Max LO/BoA' and the highest track is 'HBO/WO'.

Math test scores

My third control variable is the math test score. In the research, they also kept track of the math results of the students. I will use it as a proxy to measure their intelligence and/or capabilities as it tests their capacity to solve mathematics (Saß, Kampa & Köller, 2017). It is important to control for this variable as there are studies that have shown that a student's

mathematics ability is mainly caused by what is taught classroom (Farkas, 1996; Farkas et al., 1990; Gamoran & Berends, 1987; Roscigno & Ainsworth-Darnell, 1999; Slavin, 1989). As I am interested in the effect of their ethnicity on educational outcome, it is important to control for their math test scores so I know that the effects are because their ethnicity and not because of their ability and/or skills.

The math test consisted of the following components: 1. Numbers: structure of the counting row and structure of numbers. 2. Automation of basic addition, subtraction, multiplication and sub-operations. 3. Mental calculation: addition, subtraction, multiplication and division with numbers sec and in application situations. 4. Operations on paper, whereby children can use calculation paper to apply a numerical algorithm or, for example, record intermediate results. 5. Fractions: basic knowledge and applications. 6. Relationships: basic knowledge and applications. 7. Percentages: basic knowledge and applications. 8. Measuring: length / circumference, area, content, weight. 9. Geometry: various aspects from the geometric orientation. 10. Time: clock and calendar. 11. Estimated calculation. The researchers already computed these into a scale from 0 to 169.

School number

Lastly, I will control for the school number as their school can influence their educational outcome.

Table 4 showa an overview of all the used variables in this research. After deleting all the missing values, the N is 1208. The sample size of the ethnic minority are relatively small which means that this could have an impact on the results, for example, the Surinamese and Antillean have a sample size of 16 and 13 respectively while the Moroccan and Turkish have

a lot more than that. In the total sample size, 82.53% of the students are Dutch, while 49.17% are male. Finally, the educational outcome is a little below average.

Table 4.

Descriptive Statistics of all the variables.

	N	Minimum	Maximum	Mean	Std. Deviation
Educational attainment	1208	0	4	1.3618	1.55243
Dutch	997	0	1	.8253	.37984
Surinamese	14	0	1	.0116	.10707
Antillean	10	0	1	.0083	.09064
Turkish	101	0	1	.0836	.27692
Moroccan	80	0	1	.0662	.24878
Parental cultural capital	1208	1	4	3.2388	.74329
Language skills	1208	1	5	4.6321	.60333
Male	594	0	1	0.4917	.50014
School number	1208	1004	1404	11703.35	123.969
Math test	1208	4	167.96	90.9715	24.28716
Educational level father	1208	1	4	2.77	.891
Educational level mother	1208	1	4	2.84	.892
Valid N (listwise)	1208				

Source: COOL5-18 dataset.

Results

Methods and models

Since I am interested in the school and individual level of each ethnic group and the data structure is two level nested, students within the school, I will use multilevel analysis as it is most suited to such structures. In the multi-level analysis, I will use the school-id number to account for clustering. In addition, I will run a factor analysis on the parental cultural and language skills of the parents.

In order to analyze differences in educational attainment two models are estimated in SPSS. I will perform two analyses. In the first analysis five models are estimated in SPSS. In the first model which is the null model, I will only include the educational attainment. I will calculate the Intra-Class Correlation Coefficient (ICC) on a school level and individual level.

In the second model, I include the native Dutch groups and the ethnic minority group as a whole to see the differences between the groups. In the third model, I add gender, school number, educational level of the parents and the math test as control variables. In the fourth model, I add cultural capital. In the fifth model, language skills is added to the model. I will do this do to see if there is a difference between native Dutch students and the ethnic minority groups.

In the second analysis, I will estimate five models again. In the first model which is the null model, I will only include the educational attainment. I will calculate the ICC on a school level and individual level. In the second model, I include the native Dutch group and the four ethnic minority group. In the third model, I add gender, school number, educational level of the parents and the math test as control variables. In the fourth model, I add cultural capital. In the fifth model, language skills is added to the model. This way I can see if there is a difference between the four ethnic groups.

Bivariate analysis

First, I will discuss the bivariate analysis between the educational level and the ethnic minorities. In table 5 you can see how many of the students of each ethnic group in this research follows each educational level. Most of the students of each ethnic group goes to MAVO. While out of the four ethnic minorities, there are more Turkish and Moroccan students following the VWO track. The bivariate analysis shows that between the four ethnic minority groups the Turkish and Moroccan students have a higher educational outcome which is different from what I expected. However, this might be because the sample size of the Surinamese and Antillean students are really small compared to the rest.

Table 5

The amount and percentage of student in each educational level for each ethnic minority.

	Dutch	Surinamese	Antillean	Turkish	Moroccan
MAVO	507	5	6	37	42
%	50.9%	35.7%	60%	36.6%	52.5%
MAVO/HAVO	55	2	0	9	5
%	5.5%	14.3%	0%	8.9%	6.3%
HAVO	210	3	1	2	16
%	21.1%	21.4%	10%	21.8%	20%
HAVO/VWO	45	2	1	16	5
%	4.5%	14.3%	10%	15.%	6.3%
VWO	180	2	2	17	12
%	18.1%	14.3%	20%	16.8%	15%
Total	997	14	10	101	80

Source: COOL5-18 dataset.

Null model

Before I discuss the results, I will discuss the educational outcomes of the students without any co-variances. The variance that can be attributed to the school level is 0.083953(p=0.040) and the variance that can be attributed to the individual level is 2.325013 (p=0.000). The Intra-Class Correlation Coefficient (ICC), which is calculated by school variance/school variance + residual variance (0.083953/ (0.083953+2.325013) = 0.0349). This means that 3.49% of the variation of educational attainment can be attributed to school level variation, and 96.51% to individual level variation. Since the school level variation is so low and the P is high (p=0.040), so multi-level analysis does not add much value therefore, I will also perform a linear regression.

General differences between native Dutch and ethnic minority students

Model 2 in table 6 shows the effect of ethnic background on educational outcome after controlling for gender, school, math test and parental educational level. The ethnic minority

students have a higher educational level compared to the native Dutch students, however, this is insignificant (b= 0.097, p=0.473). The control variables show that math test scores and the educational level of the father have a negative effect on educational outcome as well as. The educational level of the father might be negative as the variable is quasi continuous and not actually continuous so that might have an effect on the linearity of the relationship. Although, I could have avoided it by making dummies for the dependent variable. If I have done that I could have seen the effect of the educational level of the father for each educational track of the students. I could have seen the effect on educational outcome better but it would have been more complex as it would have been a multinomial multilevel analysis. The other control variables, educational level of the mother and being male have a positive effect on educational outcome, however the effect is insignificant.

The parental cultural capital of the native Dutch and ethnic minorities

Model 3 in table 6 shows the effect of ethnic background on educational outcome after controlling for gender, school, math test and parental educational level. The ethnic minority students have a higher educational outcome compared to the native Dutch students, however, this is insignificant (b= 0.095, p=0.707). This effect did not change compared to model 2, although it did decrease a little. The parental cultural capital has a negative effect on the educational outcomes of the students (b=-0.095, p=0.114), indicating that the more cultural capital the students have, the lower their educational outcome will be. The control variables have not changed either except for the educational level of the mother, which decreased when the parental cultural capital was added in the model. This could mean that the lower the educational level of the mother, the lower the cultural capital of the parents.

It is expected that the residual variance at the individual level decreases when the ethnic minorities and the control variables are added into the model. However, when comparing model

3 in table 6 and the previous model, it can be seen that both the individual variance and the residual variance at the school level stayed the same.

The linear regression shows a similar results as shown in table 7. The ethnic minority students have a higher educational outcome compared to the native Dutch students, however, this is insignificant (b= 0.125, p=0.322). Parental cultural capital has an insignificant negative effect of 0.091 (p=0.132). For the control variables, math test scores and the fathers educational level have a negative effect on educational outcome. While the educational level of the mother and being male have a positive effect on educational outcomes of the students. The R square change is 0.001 after adding parental cultural capital, it explains 0.1% of the educational outcome. The overall R2 is 0.006 so all the variables together explains 0.6% of the educational outcome.

Based on the findings, the hypothesis can be neither rejected nor confirmed as the results of the effect of parental cultural capital are insignificant and according to the R square parental cultural capital only explains 0.1% of the educational outcome. Another reason why the hypothesis cannot be rejected or confirmed is because the independent variable is insignificant as well.

The language skills of the parents of the native Dutch and ethnic minorities

Model 4 in table 6 shows the effect of ethnic background on educational outcome after controlling for gender, school, math test and parental educational level. The ethnic minority students have a higher educational outcome compared to the native Dutch students, however, this is insignificant (b= 0.098, p=0.467). This effect did not change compared to model 2 and model 3. The parental language skills has a negative effect on the educational outcomes of the students (b= -0.058, p=0.439), indicating that the more language skills the students have, the lower their educational outcome will be. The control variables have not changed either except

for the educational level of the mother, which has increased when the parental language skills was added in the model. This could mean that the educational level of the mother have a positive influence on their language skills.

The residual variance of model 4 has stayed the same as the previous models. The residual variance at the school level stayed the same as well.

The linear regression shows a similar results as shown in table 7. The ethnic minority students have a higher educational outcome compared to the native Dutch students, however, this is insignificant (b= 0.126, p=0.317). Language skills of the parents has an insignificant negative effect of 0.068 (p=0.363). For the control variables, math test scores, and the educational level of the father have a negative effect on educational outcome. While the educational level of the mother and being male have a positive effect on educational outcomes of the students. The R square change does not change after adding the language skills of the parents, so it does not explain the educational outcome. The overall R2 is 0.005 so all the variables together explains 0.5% of the educational outcome.

Based on the findings, the hypothesis can be neither rejected nor confirmed as the results of the effect of the language skills of the parents are insignificant and according to the R square the language skills of the parents does not explain the educational outcome. Another reason why the hypothesis cannot be rejected or confirmed is because the independent variable is insignificant as well.

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

Table 6.

Fixed-effects of educational outcome from multilevel regression analyses.

	Null model	Model 1	Model 2	Model 3	Model 4
Intercept	1.38*** (0.056)	1.36*** (0.063)	0.67 (0.584)	0.99 (0.616)	0.93 (0.670)
Individual variance	2.33*** (0.098)	2.33*** (0.097)	2.33*** (0.098)	2.32*** (0.097)	2.33*** (0.098)
School variance	0.83** (0.040)	0.08(*) (0.041)	0.07(*) (0.040)	0.07(*) (0.064)	0.07(*) (0.040)
Deviance (-2LL)	4480.730	4480.571	4477.742	4475.247	4477.144
Ethnic minorities vs native Dutch		0.048 (0.121)	0.095 (0.134)	0.094 (0.134)	0.098 (0.134)
Male vs female			0.01 (0.089)	0.024 (0.089)	0.023 (0.089)
School number			0.0005 (0.0004)	0.0005 (0.0004)	0.000 (0.0004)
Math test			-0.0008 (0.002)	-0.0008 (0.002)	-0.0008 (0.002)
Education level father			-0.028 (0.062)	-0.028 (0.062)	-0.025 (0.062)
Education level mother			0.070 (0.064)	0.067 (0.065)	0.069 (0.065)
Parental cultural capital				-0.095 (0.060)	
Parental language skills					-0.058 (0.075)

*Source: COOL5-18 dataset. Significance level ***<0.001, ** <0.05, (*) <0.10.*

Table 7 show the effects of the linear regression. The linear regression analysis also showed that both cultural capital and the language skills of the parents does not have a positive effect on the educational outcome. Even the educational level of the father does not change in the linear regression. So both multi-level analysis and the linear regression show similar effects.

Table 7.

Unstandardized effects presented with corresponding (standard errors) of the linear regression.

	Model 1	Model 2	Model 3	Model 4
Constant	0.707 (0.485)	0.579 (0.502)	0.877 (0.539)	0.875 (0.598)
Male	0.014 (0.090)	0.011 (0.090)	0.014 (0.090)	0.013 (0.090)
School number	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)
Math test	-0.002 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Education level father	-0.034 (0.061)	-0.024 (0.062)	-0.025 (0.062)	-0.023 (0.062)
Educational level mother	0.049 (0.061)	0.072 (0.065)	0.069 (0.065)	0.070 (0.065)
Ethnic minorities vs native Dutch		0.125 (0.126)	0.125 (0,126)	0.126 (0,126)
Parental cultural capital			-0.091 (0.060)	
Parental language skills				-0.068 (0.074)
R2	0.004	0.005	0.006	0.005

*Source: COOL5-18 dataset. Significance level ***<0.001, ** <0.05, (*) <0.10.*

General differences between the four ethnic minority students

Model 2 in table 8 shows the effect of the four ethnic backgrounds on educational outcome after controlling for gender, school, math test and parental educational level. The Surinamese, and Antillean students have higher educational outcomes compared to the Turkish and Moroccan students, however, they are insignificant. Although, there is barely a difference between the Turkish and Moroccan students (b=0.13, p= 0.651). The control variables shows math test scores and the educational level of the father have a negative effect on educational outcome. While the other control variables, being male and educational level of the mother both have a positive effect on educational outcome, however all these effects are insignificant.

The parental cultural capital of the four ethnic minorities

Model 3 in table 8 shows the effect of the four ethnic background on educational outcome after controlling for gender, school, math test and parental educational level. When parental cultural capital is added into the model the effects of the Surinamese and the Antillean

students barely changed. They still have a higher educational outcomes compared to the Moroccan and Turkish students, however, they are still insignificant (b=0.15, p=0.616). The parental cultural capital has a negative effect on the educational outcomes of the students (b=-0.096, p=0.110), indicating that the more cultural capital the students have, the lower their educational outcome will be. The control variables have not changed either except for the educational level of the parents. The effect of the educational level of both parents have decreased when the parental cultural capital was added in the model. This could mean that the lower the educational level of the parents, the lower the cultural capital of the parents.

It is expected that the residual variance at the individual level decreases when the ethnic minorities and the control variables are added into the model. However, when comparing model 3 in table 8 and the previous model, it can be seen that both the individual variance and residual variance at the school level stayed the same.

Table 9 shows the results of the linear regression. It shows that the Surinamese and Antillean students have a higher educational outcome, however, this is insignificant (b=0.242, p=410). Parental cultural capital has an insignificant negative effect of 0.092 (p=0.126). This means that the more cultural capital they have, the lower their educational outcome is. For the control variables, math test scores, and the fathers educational level have a negative effect on educational outcome. While being male and the educational level of the mother have a positive effect on educational outcomes of the students. The R square change is 0.002 after adding parental cultural capital, it explains 0.2% of the educational outcome. The overall R2 is 0.006 so all the variables together explains 0.6% of the educational outcome.

Based on the findings, the hypothesis can be neither rejected nor confirmed as the results of the effect of parental cultural capital are insignificant and according to the R square parental cultural capital only explains 0.2% of the educational outcome. Another reason why the

hypothesis cannot be rejected or confirmed is because the independent variable is insignificant as well.

The language skills of the parents of the four ethnic minorities

Model 4 in table 8 shows the effect of ethnic background on educational outcome after controlling for gender, school, math test and parental educational level. When the language skills of the parents are added into the model the effects of the Surinamese and the Antillean students did not change. They still have a higher educational outcomes compared to the Moroccan and Turkish students, however, they are still insignificant. The language skills of the parents has a negative effect on the educational outcomes of the students (b= -0.057, p=0.443), indicating that the more language skills the students have, the lower their educational outcome will be. The control variables have not changed either except for the educational level of the father. The effect of the educational level of the father have decreased when the language skills of the parents was added in the model. This could mean that the educational level of the father have a negative influence on their language skills.

The residual variance of model 4 has stayed the same as the previous models. The residual variance at the school level stayed the same as well.

Table 9 shows the results of the linear regression. It show that the Surinamese and Antillean students have a higher educational outcome, however, this is insignificant. The language skills of the parents has an insignificant negative effect of 0.066 (p=0.371) this indicates that the more language skills they have, the lower their educational outcome is. For the control variables, math test scores, and the fathers educational level have a negative effect on educational outcome. While being male and the educational level of the mother have a positive effect on educational outcomes of the students. The R square change is 0.001 after

adding the language skills of the parents, it explains 0.1% of the educational outcome.. The overall R2 is 0.005 so all the variables together explains 0.5% of the educational outcome.

Based on the findings, the hypothesis can be neither rejected nor confirmed as the results of the effect of the language skills of the parents are insignificant and according to the R square the language skills of the parents only explains 0.2% of the educational outcome. Another reason why the hypothesis cannot be rejected or confirmed is because the independent variable is insignificant as well.

Table 8

Fixed-effects of educational outcome from multilevel regression analyses.

	Null model	Model 1	Model 2	Model 3	Model 4
Intercept	1.34*** (0.052)	1.37*** (0.056)	0.075 (0.571)	1.067 (0.603)	1.01 (0.660)
Individual variance	2.33*** (0.093)	2.33*** (0.098)	2.33*** (0.098)	2.32*** (0.098)	2.33*** (0.098)
School variance	0.71(*) (0.037)	0.08** (0.041)	0.07(*) (0.040)	0.07(*) (0.040)	0.07(*) (0.040)
Deviance (-2LL)	4988.812	4980.545	4478.053	4475.495	4477.466
Surinamese and Antillean vs Turkish and Moroccan		0.13 (0.295)	0.13 (0.295)	0.15 (0.295)	0.13 (0.295)
Male vs female			0.02 (0.089)	0.02 (0.089)	0.023 (0.089)
School nummer			0.0005 (0.0004)	0.0005 (0.0004)	0.0005 (0.0004)
Math test			-0.0008 (0.002)	-0.0009 (0.002)	-0.0008 (0.002)
Education level father			-0.033 (0.061)	-0.035 (0.061)	-0.033 (0.061)
Educational level mother			0.056 (0.062)	0.054 (0.062)	0.054 (0.062)
Parental cultural capital				-0.096 (0.060)	
Parental language skills					-0.057 (0.075)

Source: COOL5-18 dataset. Significance level ***<0.001, ** <0.005, (*) <0.10.

Table 9 show the effects of the linear regression. The linear regression analysis also showed that both cultural capital and the language skills of the parents does not have a positive effect on the educational outcome. Even the educational level of the father does not change in the linear regression. So both multi-level analysis and the linear regression show similar effects.

Name: Thu Nhu Thi Nguyen
SNR: 2021926
ANR: 197522

Table 9

Unstandardized effects presented with corresponding (standard errors) of the linear regression.

	Model 1	Model 2	Model 3	Model 4
Constant	0.707 (0.485)	0.686 (0.465)	0.989 (0.524)	0.979 (0.585)
Male	0.014 (0.090)	0.011 (0.090)	0.013 (0.090)	0.013 (0.090)
School number	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)
Math test	-0.002 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Education level father	-0.034 (0.061)	-0.034 (0.061)	-0.035 (0.061)	-0.033 (0.061)
Educational level mother	0.049 (0.061)	0.051 (0.061)	0.048 (0.061)	0.049 (0.061)
Surinamese and Antillean		0.227 (0.293)	0.242 (0.293)	0.226 (0.293)
Parental cultural capital			-0.092 (0.060)	
Parental language skills				-0.066 (0.074)
R2	0.004	0.004	0.006	0.005

*Source: COOL5-18 dataset. Significance level ***<0.001, ** <0.05, (*) <0.10.*

Conclusion and discussion

The goal of this paper was to answer the question to what extent are there differences in educational outcomes between ethnic minorities and natives and between the four major ethnic groups in the Netherlands. In addition to this, I also tried investigate how these explain the differences in educational outcomes between these groups. To test my research question and my mechanisms, I produced six hypotheses. In these hypotheses I expected that the native Dutch children reach higher educational levels than the ethnic minority children as they have more parental cultural capital and the language skills of the parents are better than the ethnic minorities. Furthermore, I expected that the Surinamese and Dutch Antillean group have more educational attainment than the Moroccan and Turkish group as they have more cultural capital and the language skills of the parents are better than Moroccan and Turkish group. I tested these hypotheses by using the *Cohort Research Education Careers among students aged 5 to 18 years 2013/2014 (COOL5-18).*

At the beginning of this research, I explained that the expectation was that the native Dutch students would reach higher educational levels. As ethnic minority children have less family resources than native Dutch children, their parents have a language barrier and are not involvement with their educationa. (Van de Werfhorst & van Tuberbergen, 2007). Furthermore, Klatter-Falmer (1996), Ledoux (1996), and Veenman (1996), found that the lack of knowledge of the Dutch language and education system prevent parents of ethnic minority children to offer proper support. However, this was not supported by the data of this research as both cultural capital and language skills of the parents have a negative effect of on educational outcome. Although, native Dutch and ethnic minority students have a positive educational outcome regardless their capital.

Moreover, I expected that the Surinamese and Dutch Antillean students will reach higher educational levels than Moroccans and Turkish students. They have more cultural capital and language skills of the parents are better as Surinamese and the Dutch Antillean used to be part of the Dutch colonies so their parents are familiar with the Dutch culture and they speak the Dutch language (Kromhout and Vedder, 1996). The social ties of Turkish and Moroccan parents with native Dutch people are possibly hindered by cultural and linguistic barriers. This mean they cannot easily ask the teachers or other people of different ethnic to help their children to succeed in school (Herwijer, 2009). However, this was not supported by the data either. It seem that only neither cultural capital nor language skills of the parents have a positive effect on educational outcome. This means there are other mechanisms that could contribute to the educational outcome of the students. It seems like that the educational level of mother has a positive effect on all ethnic groups. Perhaps, that has more influence on their educational outcome than the cultural and language skills. The negative effect of the educational level of the father might have other expiations as there might be other unexplored aspects that could have caused this negative effect. For example, there might be a generation gap between the father and the child. The child might prefer a lower educational level than the father because of the fact the time has changed. These days it is easier to get hired if you have experience which is why students might prefer a lower educational track so they would work earlier and get the needed experience. As for the negative effect of parental cultural capital, this could not have been caused by the missing values as I have looked for the effect with and without the missing values. Perhaps, just two items for that factor was not enough for it to have an effect. However, some of the other results might be because of the sample size of the ethnic minority are relatively small. This might have caused some results to be different from my expectations. For example to positive effect of ethnic minority on educational outcome. According to the results, they have more educational outcome compared to the native Dutch

which is different than what I expected but this might be because the sample was a lot smaller.

There are some limitations to this research. The first limitations is that this research did not include the economic capital of the parents. As argued by Boudon (1974) the education systems are not neutral when it comes to the economic resources. Parents that have a high income will have more opportunities to give their children high education as they can pay for the direct and indirect costs of education, such as private lessons and learning materials, more easily than parent with low income (Tieben & Wolbers, 2010). However, it was not possible to use economic capital in this data as the questionnaire did not include questions on this. This should be explored in future researches as occupational status does influence the educational outcome of the students as it is also tied with the language skills of the parents. Their occupational status does give them a certain social standing in society and this impacts the social network of the parents as well. Furthermore, most of the ethnic minority parents have less economic capital than native Dutch students. This could have an impact on the educational outcome of their children. So future research should add economic capital in their research.

Another limitation is that the sample size of the ethnic minorities were quite small. Particularly, the sample size for Surinamese and Antilleans students were a lot smaller (N=26) even compared to the Turkish and Moroccan students (N=181). This makes the results rather sensitive for unrepresentative results thus making it difficult for me to interpret it correctly. If the sample size were more even, a better conclusion could have been drawn from the results.

My third limitation is the way I measured social capital. Social capital is more than just the language skills of the parents. Although, this is an important aspect to measure for ethnic minority parents. If possible, future research should include other aspects of social capital, such as the social network of the parents, in order to have a better look of the effect is

social capital on educational outcome. It is the same for cultural capital, there should be more questions and/or items to have a better scale of the cultural capital as it has more than just reading. Future research should also include more cultural activities such as trips to the museum and their reading activity.

Based on my limitations I can give some suggestions for future research. The first suggestion is to use a dataset that has a more complete questionnaire on the background information of the student such as income of the parents, social network, and other cultural activities. Furthermore, the dataset does not include all the parents as not every parent filled in the questionnaire because the researchers relied on the students to pass the questionnaire. There might be even parents who did not fill in the whole questionnaire so there are some parents missing in the dataset. My second suggestion is to use a bigger sample size for the ethnic minority. By doing this the results would be more accurate and it would give a better representation of the results as a sample size of 26 does not represent the Surinamese and Antillean students in the Netherlands. My third suggestion would be to add more ethnic minorities, such as Chinese and other Middle Eastern countries in the sample size as well. Even the refugees that came in 2015 could be added into the new researches, although they are relatively new to the Netherlands, they are still interesting to research as they have to start all over. The parents have to learn how the Dutch society works, the Dutch language, the way the Dutch school system works. The parents even have to go to school themselves to learn the Dutch language. Although, the ethnic minorities used in this research are the biggest minorities groups in the Netherlands, other ethnic minorities might have similar educational outcomes as them. Furthermore, I have not found a lot of research that focusses on other ethnic minorities or even datasets that explore them so it would be interesting to see a more extensive research on the other ethnic minority groups in the Netherlands. And based on my research, if they were to replicate my research, they should add other aspects of cultural and

social capital by adding social network and other cultural activities. They should also oversample the ethnic minorities more as they were quite small in my own research.

Reference list

Boudon, R. (1974) *Education, Opportunity and Social Inequality*. London: Wiley-Interscience.

Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. H. Halsey (Eds.), *Power and ideology in education*. New York: Oxford University Press.

Bourdieu, P., & Passeron, J. C. (1977). Reproduction in education, culture and society. Trans. Nice, R. London: Sage.

Bourdieu, P. 1986. "'The Forms of Capital'". In *Handbook of Theory and Research in the Sociology of Education*, Edited by: Richardson, J.G. New York: Greenwood Press.

Centraal Bureau voor de Statistiek StatLine (nd). Bevolking; kerncijfers. Retrieved from https://opendata.cbs.nl/statline/#/CBS/nl/dataset/37296ned/table?dl=107C4

Centraal Bureau voor de Statiek (2016). Inkomen. Retrieved from https://www.cbs.nl/nl-nl/achtergrond/2016/47/inkomen

Centraal Bureau voor de Statistiek (2018), 'Armoede en sociale uitsluiting 2018'. *Den Haag/Heerlen/Bonaire*: Centraal Bureau voor de Statistiek. Retrieved from: https://www.cbs.nl/nl-nl/publicatie/2018/03/armoede-en-sociale-uitsluiting-2018

Coleman, J. S. (1966) Equality of Educational Opportunity. Washington, U. S. Department of Health, Education and Welfare. *Cultural Trends* Vol. 13(2), No. 50, June 2004, pp. 73–86.

Crook, C.J. 1997. *Cultural Practices and Socioeconomic Attainment: The Australian*

Experience. Westport, Conn.: Greenwood Press.

Crul, M. (1996) Succesfactoren in de schoolloopbaan van Turkse en Marokkaanse jongeren van de tweede generatie, *Tijdschrift Voor Sociologie,* 17(3), 402–420.

Crul, M. (1999) Turkish and Moroccan sibling support and school achievement levels: an optimistic view, Netherlands' *Journal of Social Sciences*, 35(2), 110–127.

Crul, M. (2000) De Sleutel tot success: over hulp, keuzes en kansen in de schoolloopbanen van Turkse en Marokkaanse jongeren van de tweede generatie. Amsterdam, Het Spinhuis.

Crul, M. & Vermeulen, H. (2003) The second generation. *International Mirgration Journal*, Volume 37 Issue 4, December 2003.

Driessen, G. (2002). Ethnicity, forms of capital, and educational achievement, *International Review of Education*, 47, 513–538.

Driessen, G,, Smit, F., & Sleegers, P. (2004). Parental Involvement and Educational Achievement. *British Educational Research Journal*, Vol. 31, No. 4, August 2005, 509–532.

Erikson, R., & Jonsson, J. O. (1996). Explaining class inequality in education: The Swedish test case. In R. Erikson, & J. O. Jonsson (Eds.), *Can education be equalized? The Swedish case in comparative perspective* (pp. 1–63). Boulder, Colorado: Westview Press.

Farkas, G. (1996). *Human capital or cultural capital? Ethnicity and poverty groups in an urban school district.* New York: de Gruyter.

Farkas, G., Grobe, R., Sheehan, D., & Shuan, Y. (1990). Cultural resources and school success: Gender, ethnicity, and poverty groups within an urban school district. *American Sociological Review*, 55, 127–142.

Fleischmann, F., & de Haas, A. (2014) Explaining parents' school involvement: The role of ethnicity and gender in the Netherlands. *The Journal of Educational Research*, VOL. 109, NO. 5, 554–565.

Forum (2008). The Position of Muslim in the Netherlands: Facts and Figures. Fact book. Institute for Multicultural Affairs. Retrieved from: http://mighealth.net/nl/images/b/b5/Foren.pdf

Gamoran, A., & Berends, M. (1987). The effects of stratification in secondary schools: Synthesis of survey and ethnographic research. *Review of Educational Research*, 57, 415–435.

de Goede, A. (2018, October 4) Steeds meer ouders kiezen voor dure privéschool: 'Ik heb het geld er voor over'. RTL Nieuws. Retrieved from https://www.rtlnieuws.nl.

De Graaf, P. M. 1986. `The Impact of Financial and Cultural Resources on Educational Attainment in the Netherlands'. Sociology of Education 59:237-246.

De Graaf, N.D. , De Graaf, P.M. and Kraaykamp, G. 2000. `Parental Cultural Capital and Educational Attainment in the Netherlands: A Refinement of the Cultural Capital Perspective'. Sociology of Education 73:92-111.

Heath, A., & Brinbaum, Y. (2007). Explaining ethnic inequalities in educational attainment. SAGE Publications 2007 (Los Angeles, London, New Delhi and Signapore) 1468-7968 Vol 7(3): 291–305;080230.

Herweijer, L. (2009) Making up the Gap: Migrant Education in The Netherlands. The Netherlands Institute for Social Research. SCP The Hague, July 2009.

Hofstede, G. (2011) Dimensionalizing Cultures: The Hofstede Model in Context. Online Readings in Psychology and Culture, 2(1).

Inspectie van het Onderwijs (2017). De Staat van het onderwijs. Onderwijsverslag 2015/2016.

van der Laan Bouma-Doff, W. (2007). Confined Contact: Residential Segregation and Ethnic Bridges in the Netherlands. Urban Studies, Vol. 44, Nos. 5/6, 997– 101 7, May 2007.

van Loosdregt, S. (2017, November 10). Forse groei particulier onderwijs. De Monitor. Retrieved from https://demonitor.kro-ncrv.nl.

Johnstonbaugh, M. (2018) Conquering with capital: social, cultural, and economic capital's role in combating socioeconomic disadvantage and contributing to educational attainment, Journal of Youth Studies, 21:5, 590-606.

Jongenburger, W., & Aarssen, J. (2001) Linguistic and Cultural Exchange and Appropriation: A Survey Study in a Multi-ethnic Neighbourhood in The Netherlands, Journal of Multilingual and Multicultural Development, 22:4, 293-308, DOI: 10.1080/01434630108666437.

Karsten, S. (1994) Policy on ethnic segregation in a system of choice: the case of the Netherlands, Journal of Education Policy, 9(3), 211–225.

Karsten, S., Ledoux, G., Roeleveld, J. & Elshof, D. (2003) School choice and ethnic

segregation, Educational Policy, 17(4), 452–477.

Klatter-Falmer, J. (1996) Turkse kinderen en hun schoolsucces: een dieptestudie naar de rol van sociaal culturele oriëntatie, taalvaardigheid en onderwijskenmerken. Tilburg, Dissertation Catholic University Brabant.

Kloosterman, R., Ruiter, S., de Graaf, P.M., & Kraaykamp, G. (2009). Parental education, children's performance and the transition to higher secondary education: trends in primary and secondary effects over five Dutch school cohorts (1965–99). The British *Journal of Sociology*¸Volume 60 Issue 2.

Kohnstamm Instituut, Universiteit van Amsterdam; ITS, Radboud Universiteit Nijmegen (2015): *Cohortonderzoek Onderwijsloopbanen van 5-18 jaar - COOL 5-18 Basisonderwijs 2013/2014*. DANS. https://doi.org/10.17026/dans-xtk-uz6k

Kraaykamp, G., Tolsma, J. & Wolbers, M.H.J. (2013). Educational expansion and field of study: trends in the intergenerational transmission of educational inequality in the Netherlands, *British Journal of Sociology of Education*, 34:5-6, 888-906.

Kromhout, M., & Vedder, P. (1996). Cultural Inversion in Afro-Caribbean Children in the Netherlands. *Anthropology & Education Quarterly*, Vol. 27, No. 4 (Dec., 1996), pp. 568-586.

Ledoux, G. (1996) De invloed van 'sociaal milieu' bij Turkse, Marokkaanse en Nederlandse sociale stijgers, *Sociologische Gids*, XLIII(2), 114–130.

Martinovic, B., Van Tubergen, F., & Maas, I. (2009). Dynamics of interethnic contact: A panel study of immigrants in the Netherlands. *European Sociological Review*, 25, 303–318.

Nederlands Jeugdinstituut (2009). *Culturele diversiteit in opgroeien en opvoeden: feiten en cijfers*. Utrecht: Colofon.

Van Ours, J. & Veenman, J. (1990). The educational attainment of second-generation immigrants in The Netherlands. Journal of Population Economics, Volume 16, Issue 4, pp 739–753.

Pels, T. (1991) *Marokkaanse kleuters en hun culturele kapitaal: opvoeden en leren in het gezin en op school*. Amsterdam/Lisse: Swets & Zeitlinger.

Roelandt,T., E. Martens & J. Veenman (1991) 'Ethnic Minority Children in Dutch Education: Ethnic Stratification, Social Class and Migration', Netherlands Journal of Social Sciences 27: 92–107.

Roscigno, V. J., & Ainsworth-Darnell, J. W. (1999). Race and cultural/educational resources: Inequality, micro-political processes, and achievement returns. *Sociology of Education*, 72, 158–178.

Saß, S., Kampa, N. & Köller, O. (2017). The interplay of *g* and mathematical abilities in large-scale assessments across grades. Intelligence, Volume 63, July 2017, Pages 33-44.

Shavit, Y., & Blossfeld, H. P. (1993). *Persistent inequality. Changing educational attainment in thirteen countries*. Boulder: Westview.

Slavin, R. E. (1989). Achievement effects of ability grouping in secondary schools: A best-evidence synthesis. Review of Educational Research, 60, 471–499.

Stevens, P.A.J., Clycq, N., Timmerman, C., & Van Houtte, M. (2011). Researching race/ethnicity and educational inequality in the Netherlands: a critical review of the research literature between 1980 and 2008. *British Educational Research Journal* Vol. 37, No. 1, February 2011, pp. 5–43.

Sullivan, A. (2001). Cultural Capital and Educational Attainment. *Sociology*, Volume: 35 issue: 4, page(s): 893-912.

Tieben, N., de Graaf, P. M., & de Graaf, N. D. (2010). Changing effects of family background on transitions to secondary education in the Netherlands: Consequences of educational expansion and reform. *Research in Social Stratification and Mobility*, 28(1), 77-90.

Tieben, N., & Wolbers, M. (2010). Success and failure in secondary education: socio-economic background effects on secondary school outcome in the Netherlands, 1927–1998, *British Journal of Sociology of Education*, 31:3, 277-290.

Tolsma, J., Coenders, M. & Lubbers, M. (2007a) De onderwijskansen van allochtone en autochtone Nederlanders vergeleken: een cohort-design, *Mens en Maatschappij*, 82(2), 133–154.

Tolsma, J., Coenders, M. & Lubbers, M. (2007b) Trends in ethnic educational inequalities in the Netherlands: a cohort design, *European Sociological Review*, 23(3), 325–339.

Vedder, P. (2005). Language, Ethnic Identity, and the Adaptation of Immigrant Youth in the

Netherlands. Journal of Adolescent Research, vol. 20, 3: pp. 396-416.

van de Werfhorst, H.G & van Tubergen, F. (2007). Ethnicity, schooling, and merit in the Netherlands. *SAGE Publications*. Vol 7 (3): 416–444; 080236.

Wolbers, M. & Driessen, G. (1996) 'Milieu of migratie?' determinanten van schoolloopbaanverschillen tussen allochtone leerlingen in het voortgezet onderwijs, *Sociologische Gids*, XLIII (5), 349–366.