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What is the role of the socio-economic position of parents for migrant children's educational achievements in Austria and Germany?

Bachelor Thesis

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Summary

In recent years, many international studies such as the PISA study have dealt with the educational achievements of students. Also, many scholars have dealt with the comparison of educational outcomes of migrant students in several developed countries; these scientific articles show that the educational achievements of migrant students in most countries are lower compared non-migrant students. Besides, most articles found out that the socio-economic positon of migrant parents tends to be crucial for the educational achievements of their children. Thus, the educational achievements of migrant students in Austria and Germany will be compared by the research question:

What is the role of the socio-economic position of parents for migrant children's educational achievements in Austria and Germany?

This research question will be answered as follows: First of all, a selection of related sub-questions is provided as a guideline for answering this research question. Furthermore, a quantitative cross-sectional study is conducted which is built up with the tables containing data from the most recent 2012 PISA study results in order to answer the research question. The outcomes of the tables and the sub-questions are helpful in order to provide a conclusion for this bachelor thesis: It can be said that in both Austria and Germany, migrant students have lower educational achievements than non-migrant students.

The socio-economic status of migrant parents is crucial for the educational achievements of their children. If parents have a relatively low status in the society, then there is a high probability that migrant children have worse educational outcomes than other children at the same age. As migrant children in Austria tend to have better educational outcomes compared to their counterparts in Germany, it can be hypothesized that the migrant students in Austria have better educational achievements due to a better socio-economic position of their parents within the native society. This can be partly explained by the distribution of the major immigrant groups in both states. While the largest immigrant group in Germany is from Turkish descent, most immigrants living in Austria have German roots. Thus, migrants in Austria less likely need to adapt into a new society or language and this may be beneficial for the school performance.

This topic can be regarded as highly important because due to the demographic changes both states will have to face in the near future, a good education of migrants will be important because of the labor market situation and for the economies in both states. Thus, both states cannot afford that migrants are already educationally disadvantaged. This study shall also show that both governments need to react in order to ensure better educational opportunities for migrant children.

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1. Introduction

In recent years, many international studies have dealt with the educational achievements of students. One of the most famous studies in this area is the Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (in short PISA study) which also estimates the educational outcomes of migrant students compared to their native counterparts (who are also called non-migrant students in this thesis) (OECD Family Database, 2012). All of these studies have come to the conclusion that students with migration background are disadvantaged in terms of education compared to native students. There may be different reasons for such performance gaps. For instance, the parents of the migrant students have themselves a relative poor education, a lack of material resources to help their children educationally or they are relatively more often not willing to adapt the society of their new host country. However, the family is not always the main reason for this educational inequality. The schools which migrant students are attending may also contribute to this issue. For instance, there is a relatively high distribution of migrant students in a school or the school is located in a 'bad' neighborhood in which many socio-economic disadvantaged people live. Also, these schools are relatively more often affected to have a lack of high-qualified teachers and have problems to attract such (Marks, 2005).

For the bachelor thesis, Austria and Germany are chosen as cases because due to the fact that both countries have some commonalities like the language which is German. Besides, the school systems in these two states are almost the same (Crul & Vermeulen, 2003). Moreover, this paper is centered around the question whether socio-economic status of migrant parents has an effect on the relationship between migrant children and their educational achievements.

One can argue that migrants are important for the demographic change in both Austria and Germany. According to the definition of the European Commission (n.d.), demographic change means that the population as such will be changed over time due to an ageing population or lower fertility rates but also due to migration. In order to tackle the demographic change, policy acts such as integrating migrants in Europe, stimulating the creation of more jobs or improving the economy due to more investments in education are of high importance. Therefore, one may suppose that a good education of migrants is highly important, especially for those migrants who already live in the new home country and go to school there. If migrants have better educational achievements, they may have better chances in the labor market and find a high-qualified job and earn more money from which the state can also profit (for instance more tax profits). The governments in both states can therefore not afford keeping this inequality which already takes place in schools.

Another reason why a good education for migrant students is crucial is that through the danger of globalization, especially the rise of power of states such China and India; Western states have to stay competitive. Therefore, well-educated migrants are of high importance. Besides, a good education of migrants may decrease their risk for social exclusion and discrimination (Dronkers, van der Velden & Dunne, 2012).

To sum up, the better the education of a child with a migration background is, the better are the chances on the labor market.

This combination of recent developments and personal experiences[1] explain the choice and motivation to deal with the issue of the education of migrant children.

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[1] A personal motivation to deal with this topic is that according to the German definition of migration background (a person has also a migration background even if only one parent is born abroad (Bundesamt für Migration und Flüchtlinge (BAMF), 2014)), I can be categorized as a migrant because my mother is originally from the Philippines

1.1. Research Questions

This bachelor thesis will be centered around the main research question *"What is the role of the socio-economic position of parents for migrant children's educational achievements in Austria and Germany?"* In order to answer the main research question, several sub-questions are provided will which be discussed below.

In order to investigate the answer to the main research question, two sub-questions will be used which are listed below:

- *"What are the educational achievements of migrant children in Austria and Germany?"*

- *"To what extent does the socio-economic situation of the parents affect the educational achievements of their children?"*

1.2. Outline

After having stated in the introduction why this topic of educational achievements of migrant students is of high importance and further stated the research questions which will be answered in the later parts of the thesis, the structure of this thesis is as follows:

The first part is about the theory. An overview of the demographic development in Austria and Germany is provided. Furthermore, there will be an overview of possible reasons for the worse educational achievements of migrant children other researchers have found out. The hypotheses which will be used in this paper will be mentioned as well.

The methodological part of this thesis explains why both countries Austria and Germany are chosen for this paper. Moreover, a definition of first and second generation migrants will be provided. This chapter also includes the data selection, data analysis and the possible potential threats and limitations which may occur in a research.

This is followed by the analysis chapter. This is the main chapter of this paper as the results from the 2012 PISA study and the answers to the sub-questions are provided in order to answer the main research questions. An overview of the findings and answers to the hypotheses and research questions is given in the main findings section.

In the conclusion, the findings and answers to the (sub-) questions will be discussed. Besides, the limitations of the analysis can be found in this chapter as well. Moreover, it will be recommended of how to improve the educational achievements of migrant students in Austria and Germany and on which factors and variables scholars have to consider for future researches.

2. Theoretical Part

The introduction part already gives a short overview of the topic of educational achievements of migrant children and its determinants but in this part, one can get a better impression of the reasons why educational achievements of migrant children are more likely lower than from native children. The literature review in this chapter gives an impression of what scholars have found out in their research bur first, some background information about the demographics and the migrant composition in Austria and Germany will be offered.

2.1. Background: Migration Development and Demographic Changes in Austria and Germany

After the end of the Second World War, the number of migrants immigrated to both Austria and Germany has significantly increased. On the one hand, in Germany, 16.3 million people who have a migration background were registered in 2012 by the Statistisches Bundesamt (2014a). At the same time, the Statistisches Bundesamt (2014a) estimated that 5.4 million children with migration background were born in Germany. Migrants are important for the future demographic change as the aging German population is expected to shrink dramatically. According to Kivisto (2002), the native population may decrease from approximately 80 million in the mid-1990s to about 70 million in 2030. Furthermore, the average age of a German (43.6 years) is one of the highest in Europe (Österreichischer Integrationsfonds, n.d.a.).

On the other hand, in Austria, migrants are important for the demographic change which will occur in the future. As in January 2013, more than one million foreigners were registered in Austria. Form the 1960s to January 2013, the percentage of migrants in Austria has increased up to 11.9. 47 per cent of migrants would settle permanently after five years. It is expected that through the flow of migration, more than nine million inhabitants will be registered in Austria in 2030 while without a further flow of migrants at the same time, the Austrian population will decrease to 8.3 million inhabitants. As for 2050, it is expected that through migration flows, more than 9.3 people will live in Austria while without more migrants, the number of inhabitants may decrease to 7.6 million (Österreichischer Integrationsfonds, n.d.b.). As for the average age, it is with 42 years still lower than in Germany. If more migrants will emigrant to Austria, the average age in 2030 will increase only slightly to 44.8 years compared to the expected average age of 46.8 if fewer migrants will emigrant (Österreichischer Integrationsfonds, n.d.a.).

Moreover, the OECD found out that there are more migrant students in both states. For instance, the percentage of students with migration background in Austria increased from 13.1 per cent in 2003 to 16.4 per cent in 2012 (Organisation for Economic Co-operation and Development (OECD), n.d.a.)

According to Mau and Verwiebe (2010), the number of foreign-born citizens in Austria and Germany is relatively high compared to other European states such as the Scandinavian states. Most first generation migrants originally emigrated as guest workers from Turkey, Italy or Greece. Over time, most of them stayed there permanently and brought their families to their new host country. One problem that resulted over time is that ethnic minorities have developed social disadvantages. Not only the first generation of migrants is affected but also the second or even third generation who have problems with the education and later in the labor market due to their migration background.

Furthermore, according to the German Bundeszentrale für politische Bildung (BPB) (2013), migrant citizens seem to be more likely affected to live in poverty. As in Germany, 26.6 per cent of migrants could be categorized as poor in the 2011 micro census but only 12.3 per cent of native citizens were affected. Especially migrants under 18 (30.3 per cent) and older than 65 (31.4 per cent) were categorized as poor. However, much depends on the country of origin of these migrants: Whereas migrants originally from an EU member state are only to 17.6 per cent affected, other European migrants from a non-EU state are to 31.5 per cent affected. The largest group of poor migrants in Germany is originally from Africa (41.9 per cent). A similar picture can be found in Austria. As in 2012, around 35 per cent of non-Austrian citizens could be labeled as poor whereas only about 16 per cent of the native citizens were poor or least more likely affected being poor. Also, 38 per cent of migrant children who are younger than 15 years were affected being poor but only 15 per cent of native children. These disadvantages can be also observed in their educational achievements (Medienservicestelle, 2014).

The probability of migrants to live in poverty much depends on educational level and qualifications or low language skills but also low payment and discrimination by native citizens. This poverty has also an impact on the worse educational achievements of migrant students (BPB, 2013; Medienservicestelle, 2014).

Table 1.1 shows the three largest groups of migrants in Austria and Germany. While most migrants in Austria came from Germany, Serbia, Montenegro and Kosovo and Turkey, the largest groups were originally from Turkey, the Middle East and Poland. As the official language of Austria is German as well, it can be hypothesized that German migrant children in Austria may have less likely educational disadvantages also because many Germans living in Austria are working as doctors and have therefore a high educational level. However, another large group of German migrants are working in bars so it may be expected that their educational level is relatively low (Henckel, 2014; KarriereSpiegel, 2013).

Population by migration background (2012)			
Austria	Germany (227.000)	Germany	Turkey (2.9 milion)
	Serbia, Montenegro & Kosovo (209.000)		Middle East (1.6 million)
	Turkey (186.000)		Poland (1.5 million)

Table 1.1: The three largest groups by migration background (Data from Österreichischer Integrationsfonds, n.d.c.; Statistisches Bundesamt (2014b))

The distribution of migrant students seems to differ slightly from the population by migration background in general. Table 1.2 shows that the Germans are not belonging to the three largest migrant groups in Austria but are the four largest group (one per cent). This may be partly explained by the fact that a relatively number of Germans (around 30,000 in 2013) is enrolled in universities (KarriereSpiegel, 2013). Furthermore, the second largest migrant group in Germany in the 2012 PISA study is the former USSR and its republics. Moreover, it was found out that in Germany, 13.5 per cent of migrant students have origins in other countries but Turkey, the former Soviet Union and Poland (Göroğlu, 2013; Medienservicestelle, 2011; Gebhardt, Rauch, Mang, Sälzer & Stanat, 2013).

School population by migration background			
Austria (2009-10) (general)	Turkey (1.6%)	Germany (2012) (PISA study)	Turkey (5.4%)
	Serbia, Montenegro & Kosovo (1.31%)		Former USSR republics (4.8%)
	Bosnia (1.17%)		Poland (3.3%)

Table 1.2: The three largest groups by migration background in schools (Göroğlu, 2013; Medienservicestelle, 2011; Gebhardt, Rauch, Mang, Sälzer & Stanat, 2013)

To sum up, it can be concluded that especially migrant students from European non-EU or African states are more likely being affected to live in poverty. As for the data from Table 1.1 and 1.2, it can be said that Polish students may be the least affected migrant group and have better probabilities to have relatively good educational achievements whereas the chances of other migrant groups to have lower educational outcomes are more likely higher.

2.2. Literature Review

In recent years, many scholars such as Schleicher (2006) or Marks (2005) have dealt with the educational achievements of migrant students. Hereby, they have focused on different theories of why migrant students are more likely affected to have worse educational outcomes than their native counterparts. Responsible for the lower educational achievements of migrant students are determinants such as the language abilities, gender or attitude towards school, parental characteristics such as the country of origin of the parents and their current job situation and school characteristics like the location of schools but also in how far school segregation based on skills influences the educational achievements of migrant students.

Parental Characteristics

Crul and Vermeulen (2003) found out that the tradition of the *families* is still crucial for ending the educational career on the one hand. As an example, both researchers compared the educational achievements of female Turkish and Moroccan students. Both researchers found out that especially female Turkish students are performing well at school. However, looking at other migrant groups such

as Moroccans, these students tend to drop out of school to go to work or marry. On the other hand, if migrant families are more open-minded and liberal, then especially female migrant students tend to have more likely a more successful educational career.

Marks (2005) came to a similar conclusion. In order to proof his arguments, he made use of the results of the 2000 PISA study. He found out that children from certain migrant groups who are able to adapt values of the dominant native *culture* are more likely have better educational outcomes. Other crucial socio-cultural factors are for instance the attitude towards education of both migrant parents and students or the behavior of students themselves.

Another article dealing with this issue was written by Dronkers et al. (2012). By making use of data from 15 Western OECD states (also Germany and Austria) in the 2006 PISA study, it was found out that especially first generation Islamic students have huge reading deficits. Possible reasons are for instance lack of language skills, discrimination, lack of parents' education, clash of culture or the practice of their religion. However, non-Islamic Asian students appear to be the strongest migrant group in the study but no empirical evidence was found that attitudes such as 'hard-working' or 'perfect migrant' leads to an educational advantage of this group of migrant students. Beside this, the authors presented a table with the mean scores of migrant groups who were tested in the 2006 PISA study. As in Germany, the best migrant group is the Polish students with an average score of 488 points whereas the worst migrant group is the Serbian students who scored 397 points by average. The Turks who is largest migrant group have an average score of 400 points and is the second-worst migrant group in Germany. In total, migrant students have an average score of 430 points which is lower than in Austria (445 points). In Austria, the best migrant group are the Hungarian students who scored 567 points by average. At the same time, the worst achieving migrant group are the Turkish students with an average score of 386 points. The Germans who are the largest migrant group in Austria is only the fifth-best achieving migrant group (525 points). Even though they are speaking the same language, their results are lower than those of the Hungarian, Chinese, Czech and Polish migrant students in Austria (Dronkers et al., 2012).

Levels, Dronkers and Kraaykamp (2008) found out in their research that composition of migrants within a country can explain the differences in educational outcomes in Mathematics. By making use of the data of the 2003 PISA study, they observed that the larger a migrant group in a certain state is, the more beneficial is it for the migrant students. However, this seems to be only partially true for Austria and Germany. The largest migrant students' group in Germany, the Turkish (188 students) has the lowest score points in the PISA study (413 points), whereas the -in this study- the second largest migrant group, the Polish (99 students) have reached the highest score (495 points). In Austria, the largest migrant group, the Serbs (272 students) have reached an average of 459 points which is a mediocre score. The second largest migrant group according to the study was the Turkish (137 students) and has reached a score of 433 points which is the second worst result; only the small group of students of Albanian origin (11 students) had a lower score. Also, the highest score of migrant students was reached by the Hungarian students in Austria (555 points), followed by the Polish migrants (554 points) but according to the study, these groups are rather small (eight respectively 11 students). In short, it seems that migrants in Austria tend to have higher educational outcomes by average (mean score of 455 of all migrant groups) than in Germany (mean score of 442) and that their assumption concerning the group size of migrants in a country cannot be confirmed (Levels, Dronkers and Kraaykamp, 2008).

According to Schreiner (2013) and Schwantner (2013a), another crucial factor is the educational level of the *parents* of the children. In general, the educational level of parents can explain the educational outcomes of their children. As in Austria for instance, students who have at least one parent with university degree more likely belong to the best-performing students (48 per cent in mathematics, 52 per cent in reading and 58 per cent in science) in the 2012 PISA study whereas students who have at least one parent has only finished primary education less likely belong to the best-performing students (one to two per cent in these three subjects). Moreover, the performance gaps between students who have at least one parent who completed university and students who have at least one parent who only

completed primary education is 104 points in mathematics, 106 points in reading and 117 points in science.

Crul and Vermeulen (2003) mentioned that many first generation migrants (especially the former guest workers from Turkey) who have settled abroad have little educational level. The reason is that many migrants have only attended elementary school because education played only an inferior role in the daily life opposed to farming. The effects are still visible as the migrant families usually live in a bad neighborhood and have a low income.

In a more recent scientific article, Crul (2013) examined the educational achievements of second generation Turkish migrant students whose parents are low educated. This means that the parents have only finished primary or partly attended secondary education. He found out by making use of the TIES survey from 2007 and 2008 that second generation migrant students of Turkish origin are especially educationally struggling if they live in Austria and Germany as it turns out that the educational level of migrant parents has a huge impact on the educational outcomes of their children: Children from families with lower level of education have also lower chances to get higher education as the parents are not able to help their children if they are struggling in doing their homework properly for instance. In this research, the author has examined data from six countries: Austria, Germany, France, Belgium, Sweden and the Netherlands. In Germany, 83 per cent of the parents of these children - the first generation Turkish migrants – are poorly educated whereas in Austria, 60 per cent of the first generation Turkish migrants have little education which is slightly below the average percentage (64 per cent). This has huge influence on the educational achievements of their children as only five per cent of these second generation Turkish migrants in Germany are attending university; at the same time, 15 per cent of these second generation Turkish migrants are enrolled in a bachelor or master program. The impact of the school system of the countries on the educational achievements of migrant students is mentioned below (Crul, 2013).

According to Gebhardt et al. (2013), the 2012 PISA study revealed that especially the second generation migrant students have a lower status than the first generation which can be partly compared to the high education and qualifications of the parents of the first generation migrant students who emigrated recently (within the last decade). Moreover, the largest group of the second generation migrant students does not attend the Gymnasium but the Realschule which is different from the other two migrant groups as they tend to attend the Gymnasium more likely, thus tend to have lower educational outcomes. These effects are more likely tend to worsen if the family is of Turkish origin. One example is that even if only one parent is born abroad, the probability of a low education is more likely than of other migrant groups and this affects the educational outcomes of their children negatively. However, it was found out that students with migration background have better average results in 2012 than in 2003 and that their scores are more closer to their native counterparts who are able to maintain their high educational level since 2003 and especially the second generation migrant students (increase of 44 points) and students of Turkish origin improved their educational achievements. Moreover, migrant parents from former USSR, Turkey or other foreign states except Poland (whose percentages remained high and stable) have more likely a higher education and have more qualifications than in 2003 (Gebhardt et al., 2013).

Another crucial factor of the educational achievements of migrant children is the *socio-economic status* of their parents. According to Müller and Ehmke (2013), the socio-economic status of families determines the educational achievements in Austria and Germany after having analyzed the data of the 2012 PISA study. If the students' parents have a relatively high socio-economic status, then the children will have more likely better educational outcomes. Also, if parents have a relatively low status, then there are high chances that the children will educationally struggle. Students, whose parents have more prestigious and high-qualified jobs tend to attend the German Gymnasium have also more pre-school experiences and get permission to attend elementary school at age five more often than students whose parents have a relatively low socio-economic position. As in mathematics, 15 per cent of the performance gaps can be explained by the socio-economic status in Germany. However, the relationship between the socio-economic status and school performance is getting less strong in 2012 compared to the 2003 PISA study though it is still clearly visible: The performance

gaps in reading between students who have a high socio-economic position and students with a low socio-economic status is decreasing from 106 (2000 PISA study) to 71 points in 2012 which can be only explained by the better outcomes of the latter group of students. Besides, more children of (unskilled) workers are attending Gymnasium. As in 2000, only 11 per cent of these children attended Gymnasium but in 2012, 19 per cent of them were enrolled in this type of school in Germany (Müller & Ehmke, 2013).

The socio-economic status of the parents is also mentioned by Schnepf (2004, 2007). She found out that the socio-economic status of the parents is also of high importance while studying the educational achievements of migrant students. To be precise, the socio-economic status is the main factor of the educational achievements of migrant students. For her research, she dealt with data sets from several international studies comparing the educational achievements of students: The 1995 and 1999 TIMSS studies, the 2000 PISA study and the 2001 PIRLS study. 10 states including Germany with more than 10 per cent foreign-born citizens were chosen. She used dummy variables such as mothers' educational levels or the amount of books at home in her research about the impact of the socio-economic status as well. Her conclusion was that the socio-economic status of the parents is indeed important for the educational achievements of students: If it is lower compared to native students, then there is a relatively high probability that the educational achievements of the migrant students are also low which is the case in Germany: Especially in Mathematics and Science, there is a high risk that migrant children in Germany may lagging one (in mathematics) or two years (in science) behind their native counterparts but also the reading skills of migrant children in Germany are worse compared to native students. It was found out that about 30 per cent more chance that a migrant student is lacking basic reading skills in comparison with a native student. This is different in states such as Canada or Australia in which the differences are insignificant between native and migrant students. As for the mothers' educational level, she found out that taking the relatively low educational level into account (not completed secondary school and less than 100 books at home), the educational disadvantages of migrant children in Germany would decrease from one-third to one-half (Schnepf, 2004, 2007).

Another article dealt with the socio-economic status was written by Marks (2005). The fact that migrant parents have more likely a *lower income* and social status and a bad educational level is one possible reason why migrant students are doing worse in education than non-migrant students. The analysis of the 2000 PISA study results shows that the socio-economic status of families strongly contributes to the educational outcomes of migrant children in Austria and Germany. However, the effect of the socio-economic status seems to be rather stronger for first generation migrant children than for the second generation in these both states.

By comparing the data from 2003 and 2012 PISA studies, Gebhardt et al. (2013) found out that the socio-economic status of migrant families is determining the educational achievements and that in most cases, the socio-economic status is still lower than of native families. As for families from former USSR and Poland, the socio-economic status is only lower than those of natives if both parents are born abroad but for families from Turkey, the socio-economic status is also much lower if just one parents is born elsewhere but not in Germany.

Levels et al. (2008) also found out that the socio-economic status of migrants can also lead to prejudices by the native population. If a migrant group has a higher or similar socio-economic capital than the natives, than it will encounter less prejudices and has higher chances to get higher education and/or a good job as they have more resources to facilitate. However, the authors also said that the majority of migrants have a low socio-economic status and do not enough money.

Schwantner (2013b) found out that relatively many migrant students belong to the worst-performing students in the 2012 PISA study (39 per cent in science, 33 per cent in mathematics and 29 per cent in reading) but she also came to the conclusion that about two-third of the native students also belong to this group of parents; thus, she suggested that the socio-economic status influences not just the educational achievements of migrant students but also of native students.

Entorf and Lauk (2007) have a simple explanation for these differences: While most migrants in Germany but also in Austria are *labor migrants* with low socio-economic status, countries like

Australia or Canada have stricter migration policies which means that only migrants are allowed to live permanently if they are highly educated, good language skills and able to contribute to the native human resources. The data both researchers have used is from the 2000 PISA study. 11 states including Austria and Germany were compared. Their assumption is also confirmed by Levels et al. (2008) and Schnepf (2007) who found out those migrant students who go to school in such countries have better educational outcomes because of the good education and occupation of their parents whereas migrant students from states where primarily guest workers were recruited have larger educational disadvantages which is also linked to the socio-economic status of the parents. Moreover, migrant students who are living in English-speaking countries with stricter migration policies would have relatively high average scores and their results do not distinguish much from their native counterparts.

The recent 2012 PISA study has shown that if one takes the socio-economic status of migrant parents in Germany and Austria into account, almost no differences in school performance of migrant students can be observed. It cannot be said that migrant students in Austria are doing far better than their counterparts in Germany. Though it can be observed that there is less equity in both states, the performance in Mathematics is above the OECD average. However, the recent PISA study shows that the social-economic status of migrants may affect the educational outcomes but this relationship may weaken especially in Germany as it is now at international average (Göroğlu, 2013; OECD, 2014).

Individual Characteristics

In his article, Andreas Schleicher (2006) used data from the 2003 PISA study and compared 17 states including Austria and Germany. The educational outcomes cannot be always explained by the socio-economic status of the family but mainly through the *language abilities* of migrant students. He explained it as follows: Taken the variable of language spoken at home into account, there are still significant differences for the educational achievements of migrant students in Austria and Germany.

The impact of the language skills is confirmed by Schnepf (2007) who analyzed that especially in Germany, migrant students who speak a foreign language at home have by average about 50 points less than students who do not speak a foreign language at home which means that speaking German at home may improve the educational outcomes of migrant children. Especially the second generation migrant students are affected if they speak a foreign language at home as they have 63 points less than the native students whereas the first generation migrant students have by average 45 points less than non-migrant students. However, these differences between the first and second generation migrant students by comparing their language skills can be only found at the data sets from the PISA study. According to the data from the PIRLS study, the second generation has a better average score than the first generation and speaking a foreign language at home has a smaller negative impact on the educational achievements in general. However, if one takes the language skills and the socio-economic status of migrants into account, the performance gaps of migrants are shrinking significantly but the socio-economic status of migrants cannot always explain their educational disadvantages except for the first generation migrant students in Germany (Schnepf, 2007).

Furthermore, Schleicher (2006) has found out that both first and second generation migrant students tend to have a rather positive *attitude* towards learning. Besides, migrant students show relatively more often greater motivation even though their educational achievements are too low. However, this information can be valuable for policy makers who are responsible for changing aspects of the national school system.

Entorf and Lauk (2007) were the opinion that *female* migrant students more likely have better educational outcomes than male migrant students (which is also the case in Germany and Austria) though it is not always as significant as in Scandinavia or traditional immigration states.

School Characteristics

Firstly, Entorf and Lauk (2007) supposed that the educational achievements of migrant students depend much on the *school segregation* of natives and migrants. They conclude that the school

segregation in both states indeed lead to an inequality of educational outcomes and disadvantages for migrant students especially if their parents have a relatively poor socio-economic integration. Furthermore, the school segregation in secondary schools based on school performance may lead to fewer social interactions of migrant and non-migrant students.

According to Dronkers et al. (2012), there may be a relationship between the socio-economic status of migrant parents and school segregation. In states with a stratified *school system* (such as Germany) and an early selection to different tacks of secondary schools, a low socio-economic status can negatively influence the entrance selection to the secondary schools. In other words, this separation into different secondary schools increases the educational performance gaps of migrant and native students and even increase if the selection to the schools happened at young age. Migrant parents have often not much knowledge what this selection means for the future career of their children. To compare, migrant students who live in states with comprehensive school system have more often higher educational outcomes than their counterparts in stratified system.

Crul (2013) also found out in his research that school system explains the educational disadvantages of second generation Turkish students in Austria but especially in Germany. The early age of selection into the different secondary schools at age 10 to 12 in these two countries leads to an early predestined school career in which the student will have huge difficulties to 'up-stream' into a more prestigious secondary school. In Germany, only 12 per cent of second generation Turkish students whose parents are poorly educated attend the Gymnasium which is the most prestigious secondary school whereas in Austria, 18 per cent attend the AHS-Unterstufe. However, there are more possibilities to up-stream into a more prestigious secondary school without a huge delay in Austria than in Germany. Moreover, the number of contact hours between students and teachers is limited because most schools are only part-time which makes it even harder for migrant students to improve their educational skills properly. In both Austria and Germany, the education system is designed in a way that parents would have to help their children with homework on their own but migrant parents are more likely less active in guiding their children as they are low educated as well. Also, the relatively old age (between age four and five) in entering education in both states affects the educational outcomes of second generation Turkish students negatively as the migrant parents are responsible for the language skills of their children instead. Overall, second generation Turkish students in Germany are regarded as the most disadvantaged group of the six tested countries (listed above). By contrast, second generation Turks in France and Sweden are more likely performing better and have greater chances to get access to tertiary education even if their parents are lower educated as the entry to education is relatively low (around age three), schools are full-time and children are guided during doing their homework at school and the selection into the different secondary schools occurs much later (if the children are around age 15). However, this research also shows that non-migrant students whose parents are low educated have only slightly higher chances to perform better than migrant students with low educated parents at school so it can be said that the educational level of parents is more important than the ethnicity (Crul, 2013).

Other articles dealing with the school segregation based on school performance are written by Schnepf (2004, 2007). As for her school segregation theory, this can be confirmed if the schools have a relatively *high number* of migrant students. In this case, the rates of the educational outcomes are low even if the socio-economic status of migrants is no big issue. As for Germany, she found out that the distribution into schools with a high number of migrant students and different socio-economic statuses negatively affect the educational outcomes of migrant children. Furthermore, she came to the conclusion that only a small percentage of migrant students (seven per cent) would attend the Gymnasium which is a prestigious school track where well-achieving students are attending. At the same time, about 28 per cent of migrant students attend the Hauptschule which is a non-prestigious school track where the low-achieving students are attending.

However, as for the migrant composition in secondary schools in Germany, 29.4 per cent of students with migration background attended the Gymnasium according to the data from the 2012 PISA study. In constant, only 16.4 per cent of students with migration background were students at the Gymnasium in the 2003 PISA study (Göroğlu, 2013).

Marks (2005) mentioned that the high distribution of migrant students in *'bad' neighborhoods* plays a role for the lower educational outcomes of these children. Furthermore, these schools are located in neighborhoods where relatively many socio-economic disadvantaged citizens are living. This combination may be the reason why especially these schools are struggling to find enough qualified teachers. Taking his theory into account, the reading and mathematics scores' differences of first and second generation and native students decrease significantly in Germany and Austria. In other words, his theory that the three factors which are in his article (socio-economic condition, socio-cultural differences and school) explain the worse educational achievements of migrant students can be confirmed in the most of the observed states. However, especially in Germany, there are still large inequalities of educational achievements after the research which cannot be always explained by his theory.

According Schwantner (2013b) who made use of the 2012 PISA study, about one-quarter of migrant students are attending schools with a negative socio-economic image but only 19 per cent attend school with a neutral or positive socio-economic image in Austria. This would affect the educational outcomes of migrant students more likely than the concentration of migrant students in certain schools.

Hypotheses

Based on the findings of the literature review, one can hypothesize that:

- H(1): Migrant students in Austria and Germany have more likely worse educational outcomes compared to non-migrant native students
- H(2): Migrant students have worse educational outcomes because of their worse socio-economic situation

The primary focus will be on the educational achievements of first generation migrant students in Austria and Germany because there is more data for this group available but also in how far the birthplace of the parents of these students affects the educational outcomes. These questions and the hypotheses can be linked to the later parts of the thesis and will be answered in the end of the thesis.

Conclusions

This literature review shows that the socio-economic status of the migrant parents plays a role for the educational outcomes of migrant students. However, it is not the sole reason. The school system, the school segregation by school performance, gender and the language ability of migrant students are proven to play a role in the lower educational achievements of migrant students in Germany and Austria. Based on the articles which make use of previous PISA study results, one can thus expect that in both Austria and Germany, educational achievements of migrant students are worse compared to non-migrant students.

However, for the further parts of the bachelor thesis, there will be a focus on the socio-economic status of migrant parents as there is more evidence that this variable is indeed responsible for the lower educational achievements of migrant students in Austria and Germany.

3. Method

A good idea will never lead to a relevant scientific paper if the methodology is not properly considered. One can choose a very interesting research question but if the research design and the case selection is not properly chosen or one does not care much of the threats one can find in the validity or reliability, one cannot find a proper way to answer the question. For this purpose, it will be mentioned of how carefully the research design and case selection were chosen because it is highly important for the data analysis. Moreover, the threats one can face in the validity and reliability will be taken into account.

3.1. Choice of Countries

For the bachelor thesis, the focus will be on the countries Austria and Germany as both states have some commonalities which explains this choice. There are indeed many scientific articles such as Marks (2005) or Schleicher (2006) which deal with the school performance of children with migration background in a specific country but most of them are lacking a comparative character. Some of the articles will be dealt with in the literature review section below. Therefore, the motivation is to contribute a scientific article which offers such a comparative character. Thus, it can be scientifically proven if one of these countries may perform significantly better or worse than the other country even if both states have a lot of commonalities.

Both states have the same language (German) and have almost the same school system. In both states, the official school education usually starts with the students' age of six. As soon as the students have finished the fourth grade (what happens if the students are 10 years old), students are distributed to different secondary schools. Whereas Germany has three secondary schools, the Austrian school system has two secondary schools. Usually, education at schools only last a half day and students have to do much homework which may be a disadvantage for the education of migrant students if their parents are not able to help them. Also in both states, many migrants are relatively more often affected to end up in vocational secondary school which is called in both states Hauptschule (Crul & Vermeulen, 2003).

This way, the school characteristics will be also taken into account as both countries have similar school systems.

3.2. Definition: First /Second Generation Migrants

When dealing with the educational achievements of migrant students, one has to distinguish the outcomes of first and second generation migrant students. One would expect that the second generation of migrant students would perform better than the first generation as they are born and raised in the new host country and thus may have better language abilities which may lead to less educational disadvantages. The OECD Family Database (2012) distinguishes the first and second generation migrant children: The first group is about children who are just like their parents born abroad; the latter group consists of children who are not born abroad but their parents.

Most scientific articles such as Algan, Dustmann, Glitz and Manning (2009); Casey and Dustmann (2010) or Schleicher (2006) distinguish the two groups as follows: The first generation of migrant students is - just their parents - born abroad while the second generation of migrant students is born in the host country but their parents are both born abroad. In own words, one is considered as a first generation migrant student if one's parents and oneself born in a foreign state like for instance Turkey but grows up and goes to school in Germany. Similarly, one is a second generation migrant student if the parents are both born in Turkey but one is born and raised in Germany. Their definitions are the same like the one from the OECD Family Database (2012) which is also used for the PISA studies by the OECD.

As for students who have one foreign-born parent and one native parent, are not considered as migrant students as Schnepf (2004) suggests. Instead, she put this category of students to the native students and is thus neglected in the research of education of migrant students. Here again, the OECD Family Database (2012) has the same opinion: A student with at least one native-born parent is not a migrant even if the student itself is born in a foreign state. This is also the same definition for the PISA studies; these students are not counted as migrant students. However, this view is challenged by the German definition of migration background. According to the German BAMF (Bundesamt für Migration und Flüchtlinge, 2014), one has also a migration background even if only one parent is born abroad.

In this bachelor thesis, there will be a primary focus on the educational achievements of first generation migrant children as there is more data available. In this way, the students by their country of birth will be distinguished. Besides, those students will be kept in mind whose parents are born abroad -the second generation migrant children- and what that means for the educational outcomes of

migrant children. Furthermore, the school performances of students who are born in either Austria or Germany but may have migration background as they speak another language at home for instance will be described.

3.3. Data Collection

The PISA study was launched in 2000 and since then, the school performance of 15-year-old students will be tested every three years. As in 2012, more than 510,000 students took part in the study that is distributed in 65 states. Not just the school performance is tested, but also the effect of migration background of students is taken into account for estimating their educational achievements (OECD, n.d.d.).

For the bachelor thesis, existing and secondary data sets from the 2012 PISA study will be used. With the results which have to be found out, it can be concluded if the hypotheses derived from the literature review that migrant students have worse educational outcomes in Austria and Germany is still valid. The results gained from the data sets will be descriptive. Furthermore, in order to find the educational achievements of migrant students, performance gaps will be calculated. This is also a comparative study as two states which are Austria and Germany will be compared by the educational achievements of their migrant children. However, one has to keep an eye on potential threats which can appear in dealing with existing statistics and cross-sectional studies. There may be a risk that a result may be relatively less often valid or reliable if the measurement of a data analysis is not working properly because threats are not considered earlier.

3.4. Data Analysis

In order to answer the (sub-) questions of the bachelor thesis, it is important to analyze the school performance of native and migrant students by the results of the 2012 PISA study. As for the bachelor thesis, migrant students who are 15-year-old will be compared by their educational achievements with their non-migrant counterpart of the same age. In this way, a proper comparison can be provided as there are not many differences between each group. In other words, comparative studies in which one can compare the educational achievements of migrant and non-migrant students in Germany and Austria are used for this research. Furthermore, some data sets also contain the OECD average scores in order to compare if the performance gaps which show if migrant students have worse educational outcomes than native students. Furthermore, the performance gaps are important in order to answer the sub-questions and the main research question. The performance gaps are calculated by following formula which was created for the purpose of this research: First of all, the results native students could reach will be considered and subtracted by the points migrant students could reach by average. The sums of the calculation are the educational performance gaps:

School performance of native students – school performance of migrant students = performance gap

This order is considered because one can hypothesize that migrant students have worse educational outcomes than native students. The higher the educational gap is, the higher is the educational disadvantage and respectively the lower are the educational achievements of migrant children. Each sub-question will be answered by calculating the performance gaps of migrant students compared to their non-migrant counterparts. Besides, the educational achievements of migrant students will be compared by the three categories (reading, mathematics and science) students were asked in the 2012 PISA study in order to find certain patterns or extraordinary differences in the school performances of students. These results are helpful to find out what the educational achievements of migrant children in Austria and Germany are.

By considering this formula, it will be analyzed how high the performance gaps of students are who born abroad. Therefore, the results of the foreign-born students will be compared with the results of native-born students in both Austria and Germany. By considering the OECD average results, it has to make sure if the performance gaps of migrant students are high in these both states. Furthermore, the three main categories will be taken into account in which the students were tested in the 2012 PISA

study. To show whether the performance gaps are statistically significant, confidence intervals (CIs) are provided additionally. The formula which will be used is as follows:

School performance of native/migrant students ± Standard error (SE)

The CIs of each group are listed in the tables and the results will be also discussed in the analysis.

3.5. Research Design

For this research, a *quantitative cross-sectional study* based on the results of the 2012 PISA study is used. As the literature review has shown the educational achievements of migrant students in Austria and Germany tend to be worse compared to native students. However, the scientific articles are based on data sets from earlier studies. Therefore, it has to find out whether the inequality of educational achievements still exists or may become even worse for migrant students. Rather than interviewing students throughout Austria and Germany, *existing statistics* of the 2012 PISA study will be used.

There are several reasons for just taking the 2012 PISA study results into account for this research. Firstly, there is not much research done based on the results of the 2012 PISA study due to the relatively short span of time. Furthermore, there are already many scientific articles based on earlier PISA study results, thus the own contribution to this topic would decrease. Secondly, new kinds of policies could be introduced if there are still many inequalities of school performances of migrant students compared to their non-migrant counterparts. It is not enough to introduce policies based on more than 10-year-old study results. Through the new results, new discussions about education policies may result. Education policies in Austria and Germany may have to be changed to make sure that migrant students enjoy better education and thus better educational achievements which may also positively affect their later life, for instance in the labor market.

Since only the latest results of the PISA study are considered, it can be said that this data is based on a cross-sectional study. "A cross-sectional study involves observations of a sample, or cross section, of a population or phenomenon that are made at one point in time." (Babbie, 2010, p.106). This kind of research design seems to be the most appropriate. This is also due to the fact that a descriptive study will be used.

3.6. Potential Threats and Limitations

If one uses existing statistics and cross-sectional study for a research, it also has to take their potential threats and how to solve them into account. Scientific articles such as de Vaus (2001) or Babbie (2010) which are dealing with research design, mostly pointed out that in cross-sectional study, most threats can be found in the internal and external validity. For instance, De Vaus (2001) points out that the kind of the structure of a data collection is of high importance in a cross-sectional study: It is more than necessary to have data from as many cases as possible in which the same variables are used. This is also the approach of this bachelor thesis, though the data sets concerning the educational level of migrant parents did not arrive. Furthermore, Babbie (2010) also mentions threats which may appear if one uses existing statistics for the research and how to solve them as good as possible. Especially if one knows that in existing statistics, groups are considered as the unit of analysis. Thus, this can lead to a problem of generalize a typical pattern of a certain group to individuals.

Therefore, there will be some short explanations of the threats in validity and the reliability in cross-sectional studies and existing statistics. As for the former kind of threat, the internal and external validity will be distinguished. Furthermore, it will be stated how researchers would solve each threat. Besides, it will be described of how one can avoid such threats for the later part of the bachelor thesis: This can be done at least by some extent by choosing two similar cases.

3.6.1. Validity

When a researcher is making use of an existing statistics like in this bachelor thesis, it may happen that some threats in the validity may happen. A great concern is that one not always finds a certain

interesting fact within an existing data set (Babbie, 2010). This threat can be solved by two following ways: Logical reasoning and replication. Logical reasoning means though a certain kind of data may not be available, one can conclude a pattern by examining other information which are available. This is also the case for this bachelor thesis as the data sets concerning the educational level and the country of origin of the students' parents were not sent by the OECD though it was requested several times on their website. Therefore, there will be no data analysis of this relationship in this thesis. To compensate the lack of data, scientific articles such as of Crul (2013) or Gebhardt et al. (2013) were examined instead as they were dealing in how far the educational level and country of origin influence the educational achievements of their children.

Internal Validity

According to de Vaus (2001), the internal validity in a cross-sectional study may be negatively affected by the lack of time dimension and the meaning of the outcomes. Due to a cross-sectional study, there may be issues finding a causal variable or causality of the variables. Furthermore, confounding variables may be a problem which may appear during the data analysis. However, de Vaus (2001) states that these threats can be solved by making similar groups and test more than one variable or independent variables which cannot be manipulated (for instance age or gender) to find causality. This is the case in this bachelor thesis as similar groups are compared with (for instance unemployed non-migrant parents with unemployed migrant parents).

External Validity

A potential threat of external validity is that in a cross-sectional study, the likelihood of generalizations is increasing: The result of a cross-sectional study in which a certain group of a population (for instance students) took part, could be wrongly generalized to the whole population (Babbie, 2010; Gerring, 2012). De Vaus (2001) found out some solutions: Since there is no time dimension in cross-sectional studies, the threats of bias and dropouts which may happen in longitudinal studies can be easily reduced as there is only one point in time tested.

The 9756 students from Austria and Germany were tested in the 2012 PISA study in total (PISA 2012 Database, personal communication, May 17, 2014). Therefore, it can be said that the sample size is large enough. Besides, this PISA study data which will be used for this research is only from one point in time in 2012 so the danger of bias and dropouts during longitudinal studies is eliminated.

3.6.2. Reliability

In general, it is important "that the same data would have been collected each time in repeated observations of the same phenomenon" (Babbie, 2010, p.150): It has to make sure that regardless which measurement is used, the same results can be found each time (Babbie, 2010).

As for analyzing existing statistics like in this paper, one has to keep in mind that the quality of the existing data sets is highly important; therefore, if the quality of such data sets may not be good, then there may be relatively more often threats in the reliability of a research. In other words, "do they [the researchers] accurately report what they claim to report?" (Babbie, 2010, p.348). But in how far can this kind of threat be minimized? First, a researcher needs to know that this threat exists. Furthermore, it is important that one analyzes the data collection itself in order to find out potential threats (Babbie, 2010).

This chapter discussed the selection of the countries and which method will be used. In the analysis chapter, the results from the data sets are presented.

4. Analysis

This chapter contains the analysis of the data from the 2012 PISA study. This is important in order to answer the sub-questions and the hypotheses first and then answer the main research question. An overview with the sub-questions and hypotheses is provided just like the explanation of in how far this analysis was limited by the data sets received.

4.1. Results

In this chapter, tables are provided in order to answer the sub-questions. These data sets are divided into eight tables to get an answer to the main question. In other words, each table deals with one sub-question in order to get to know how the main research question shall be answered at the end of this paper. These tables do not just include the average school performance scores of the groups of students but also the number of students in each group (N), the standard error (SE) and the confidence interval (CI).

The first sub-question which will be answered is as follows:

"What are the educational achievements of migrant children in Austria and Germany?"

Tables 2.1 to 2.3 are provided in order to answer this research question. To compare if the performance gaps are high, the OECD average scores are also provided as a guideline.

	Reading				
	Austria		*Germany*		*OECD average*
born in test country	494	N= 4398 SE= 2.82 CI= [491.2, 496.8]	517	N= 3964 SE= 2.79 CI= [514.2, 519.8]	500
born abroad	451	N= 315 SE= 8.36 CI= [442.6, 459.4]	455	N= 151 SE= 9.93 CI= [445.1, 464.9]	469
performance gap	**43**		**62**		**31**

Table 2.1.: Performance gaps of students who are born abroad and native-born students by their reading skills (data from OECD, n.d.c. ; PISA 2012 Database, personal communication, July 1, 2014)

As for reading, students born in Austria have an average total result of 494 points whereas foreign-born students (who may be considered as first generation migrant students for the purpose of the analysis) have an average total of 451 points. By taking the formula into account, the performance gap in reading is 43 points. As in Germany, native-born students have a result of 517 points which is higher than in Austria by average while at the same time students who are not born in Germany have an average result of 455 points which is slightly higher than in Austria. The performance gap in reading in Germany is therefore 62 points. By taking the OECD average result of 31 points into account, the performance gaps in both Austria and Germany can be considered as high. Especially if one takes into account that native German students have better average scores than the OECD average scores but on the other, foreign-born students who are going to school in Germany tend to have worse average educational achievements than the OECD average as Table 2.1 shows .On the other hand, it

appears that even though the performance gaps between native- and foreign-born students is greater in Germany, migrant students have slightly better educational outcomes than in Austria.

As the confidence intervals of native and migrant students which are listed in the table do not overlap in each case, it can be said that the differences in reading skills between both groups of students are statistically significant in both countries. By average, foreign-born migrant children have significant lower reading skills compared to native students. Though the average score of migrant students in Germany is higher than in Austria, the performance gap in Austria is smaller and the differences between the countries are significant.

	Mathematics				
	Austria		*Germany*		*OECD average*
born in test country	509	N= 4398 SE= 2.74 CI= [506.3, 511.7]	521	N= 3964 SE= 3 CI= [518, 524]	497
born abroad	464	N= 315 SE= 8.55 CI= [455.4, 472.6]	461	N= 151 SE= 9.48 CI= [451.5, 470.5]	469
performance gap	**45**		**60**		**28**

Table 2.2.: Performance gaps of students who are born abroad and native-born students by their mathematics skills (data from OECD, n.d.c. ; PISA 2012 Database, personal communication, July 1, 2014)

As for mathematics, the educational performance gap in Austria is 45 points as Austrian-born students have an average total result of 509 while foreign-born students have an average result of 464 points. At the same time, the performance gap is higher compared to Austria. By average, a German-born student has a total result of 521 points which is higher than in Austria while a student who is not born in Germany has only a result of 461 points by average which is lower than in Austria. Therefore, the gap between native and (first generation) migrant students is 60 points. The OECD average gap of 28 points clearly shows that in both Austria and Germany, the performance gaps are high. Another striking fact one can observe through this table is that native German respectively Austrian students have better average scores than the OECD average but the students who are born abroad and going to school in Germany or Austria have worse educational achievements than the OECD average.

As the performance gaps can be considered as relatively high, it must be found whether the gaps between non-migrant and migrant students are also statistically significant. Table 2.2 shows that the performance gaps of migrant students are indeed significant as the intervals do not overlap. Though there are evidences that in both states, the differences are statistically significant, migrant students in Austria tend to have small advantages compared to their counterparts in Germany because the performance gap is smaller and the scores are higher which is different from the previous table.

	Science				
	Austria		*Germany*		*OECD average*
born in test country	511	N=4398 SE= 2.65 CI= [508.3, 513.7]	532	N= 3964 SE= 3.04 CI= [529, 535]	505
born abroad	455	N= 315 SE= 7.9 CI= [447, 463]	471	N= 151 SE= 10.38 CI= [460.6, 481.4]	472
performance gap	**56**		**61**		**33**

Table 2.3.: Performance gaps of students who are born abroad and native-born students by their science skills (data from OECD, n.d.c. ; PISA 2012 Database, personal communication, July 1, 2014)

The third and last category of science shows that the performance gap of native-born and foreign-born students in Austria is 56 points by average while in Germany; the educational performance gap is even 61 points. Here, it has to be said that both native and migrant students in Germany have better educational outcomes than their counterparts in Austria as Table 2.3 shows. This table shows that even though the performance gap is higher in Germany than in Austria, migrant students appear to have better skills in science than their counterparts in Austria. Like in the first two categories reading and mathematics, the both performance gaps are too high compared to the OECD average gap of 33 points. Like in Table 2.2, students who are born in either Austria or Germany have better educational achievements by average than the OECD score. But at least in science, foreign-born students who are going to school in Germany have almost the same average score than the OECD average.

Like in the previous two tables, it has to be said that the differences in school performance are indeed statistically significant as the CIs are not overlapping. Similar as in Table 2.1, the average score of foreign-born students in Germany is higher in Germany than in Austria but the performance gap in Austria is smaller than in Germany. Therefore, in both states, disadvantages and advantages for migrant students can be observed.

In all three categories, the performance gaps between students who are born in Germany and students who are not born in Germany is higher than in Austria; thus, on the one hand, it can be said that students who are not born in Austria have more likely better results by average than students who are not born in Germany. The performance gap is the highest in reading whereas the gap in science seems to be modest. On the other hand, migrant students in Germany have higher average scores than their counterparts in Austria except in mathematics. It seems that the level of education is in general higher in Germany than in Austria or the OECD average at least in these examples. However, if one compares the performance gaps in Germany and Austria with the average OECD performance gaps, it can be said then that the gaps in both states remain high; foreign-born students have more likely worse educational achievements like previous scientific articles such as those of Dronkers et al. (2012) or Schleicher (2006) mentioned. Therefore, after the first results it can be argued that the educational outcomes of students depend much on their migrant status. There is statistical evidence that students who are born abroad have significant lower educational outcomes than native-born children. This is also confirmed by the fact that the CIs of each group do not overlap which means that the differences between native and migrant children are statistically significant. Therefore, it has to be analyzed which

factors may influence the lower educational outcomes of migrant children compared to native children in Austria and Germany.

However, other factors may play a role as well. Through the literature review, it can be said that the socio-economic status of the parents of migrant children has a strong influence on the educational success at school; therefore, there will be a focus on the current employment status of migrant parents in the next two tables.

It seems that the largest performance gaps between native and migrant children can be found in the category of science so therefore, the remaining tables which will be analyzed will have a focus on the students' results in science. Furthermore, as the main focus of the 2012 PISA study was on mathematics (Göroğlu, 2013), the results in this category will be also discussed.

As for the analysis of the socio-economic status of migrants, it was considered to compare the educational achievements of students by the employment status and the educational levels of their parents. However, as for the latter variable, the data did not arrive in time so unfortunately, there will not be an analysis of the educational level of parents in this bachelor thesis.

Table 3.1 to 3.4 show in how far the employment status of migrant parents affects the educational outcomes for science of their children. Therefore, four groups which take the factor country of birth of the parents and their current job situation into account will be compared. It is expected parents with a full-time paid job have more money and financial resources but may also have better education themselves to improve the school performances of their children unemployed parents do not have the financial opportunities to afford appropriate materials and resources. Unfortunately, it is not possible to compare the average performance gaps with the average OECD scores as the latter is not included in the data sets from PISA 2012 Database (personal communication, May 18, 2014). Because the outcomes of Table 2.1 to 2.3 show that migrant students are rather struggling in science, the analysis of the educational achievements will focus on this category in the next two tables and because the main focus of this PISA study was on mathematics, Tables 3.3 and 3.4 will deal with these results.

"To what extent does the socio-economic situation of the parents affect the educational achievements of their children?"

	Science			
	Austria		*Germany*	
native-born mother - full-time paid job (first group)	520	N= 1636 SE= 3.28 CI= [516.7, 523.3]	542	N= 1079 SE= 3.64 CI= [538.4, 545.6]
native-born mother - unemployed (second group)	490	N= 80 SE= 10.8 CI= [479.2, 500.8]	524	N= 121 SE= 11.11 CI= [512.9, 535.1]
foreign-born mother - full-time paid job (third group)	472	N= 425 SE= 5.45	499	N= 207 SE= 7.39

	Austria		Germany	
		CI= [466.5, 477.5]		CI= [491.6, 506.4]
foreign-bon mother - unemployed (fourth group)	438	N= 40 SE= 20.37 CI= [417.6, 458.4]	469	N= 38 SE= 21.22 CI= [447.8, 490.2]
performance gap (first group - third group)	**48**		**43**	
performance gap (first group – fourth group)	**82**		**73**	
performance gap (second group – fourth group)	**52**		**55**	

Table 3.1: Performance gaps of students by considering the country of birth of their mothers and their job status by their science skills (data from PISA 2012 Database, personal communication, May 18, 2014)

Table 3.1 shows the performance gaps between native and migrant students by the current employment status of their mothers. Overall, it can be said that students from the first group have the highest scores in both states (520 points in Austria, 542 points in Germany). The lowest scores are reached by both fourth groups. Both third groups have lower scores than the second groups; this means that students with an unemployed native mother have better results than students whose mothers are born abroad but working in a full-time job. This would mean that the migrant status of migrant mothers seems to be important. As for the performance gaps, in two of three calculations, the average performance gaps are larger in Austria than in Germany except for the calculation of the gap between the second and fourth group. Moreover, one can observe that migrant students in Germany have higher average scores than their counterparts in Austria. However, it seems that the gaps between native and migrant students are relatively large.

As for the statistically significant difference, the intervals of the groups who are compared by their performance gaps do not overlap. Therefore, it can be said that the differences between these groups are statistically significant. Students with a foreign-born mother have lower educational achievements by average even if the mothers are working in a full-time paid job. Even if one would compare the second and third groups, there are still significant differences between these groups. In short, the country of origin of students' mothers plays indeed an important role in the educational outcomes of these children and it turns to be more negative if the mothers do not have a job; the migrant status affects the educational outcomes of their children.

After having analyzed Table 3.1, it has to be found out whether the educational achievements of migrant students are getting better if their fathers are born abroad. Table 3.2 below shows the educational achievements of migrant students compared to their native counterparts.

	Science			
	Austria		*Germany*	
native-born father - full-time paid job (first group)	523	N= 3153 SE= 2.54 CI= [520.5, 525.5]	548	N= 2706 SE= 3.19 CI= [544.8, 551.8]

native-born father - unemployed (second group)	489	N= 55 SE= 12.84 CI= [476.2, 501.8]	517	N= 63 SE= 14.53 CI= [502.5, 531.5]
foreign-born father - full-time paid job (third group)	467	N= 696 SE= 4.54 CI= [462.5, 471.5]	490	N= 520 SE= 5.78 CI= [484.2, 495.8]
foreign-born father - unemployed (fourth group)	406	N= 49 SE= 18.44 CI= [387.6, 424.4]	too small sample	N= 26
performance gap (first group – third group)	**56**		**58**	
performance gap (first group - fourth group)	**117**		**too small sample**	
performance gap (second group – fourth group)	**83**		**too small sample**	

Table 3.2: Performance gaps of students by considering the country of birth of their fathers and their job status by their science skills (data from PISA 2012 Database, personal communication, May 18, 2014)

According to this table, students with a foreign-born father also have lower educational outcomes than students whose fathers are not born abroad. Table 3.2 shows that the first group in Austria respectively Germany has the highest average score whereas the lowest scores can be found for the fourth group in Austria. As in Germany, there is no data for the fourth group, as the sample size is too small. However, students with an unemployed native father have higher average scores (second group) than students whose migrant father are working in a full-time job (third group). As for the performance gaps, it can be said that especially students from the fourth group have the most struggle in the educational achievements if they are compared with the first group. The gap of 117 points appears too large especially after having compared it with the gap of the first and fourth group in Table 3.1. However, compared to the second group, the fourth group has also much lower educational achievements as the gap of 83 points suggests. Even students belonging to the third group have relatively low educational outcomes as the gap between the first and third group is 56 respectively 58 points.

The CIs of the groups who are compared by the educational performance gaps do not overlap so there are evidences that the differences between native and migrant students are statistically significant. Also, if one would compare the intervals of the second and third group, significant differences can be found. Moreover, it seems that the differences between the CIs of these groups are larger than in the previous table. It appears that students whose fathers are born abroad have lower educational outcomes than students whose mothers are not born in Austria respectively Germany. Furthermore, this negative effect for migrant students tends to increase if their fathers are unemployed. However, the previous

two tables only show the results in the category of science. As the main focus of the 2012 PISA study was mathematics, the next two tables will present if there are any significant differences.

	Mathematics			
	Austria		Germany	
native-born mother - full-time paid job (first group)	519	N= 1636 SE= 3.43 CI= [515.6, 522.4]	529	N= 1079 SE= 4.05 CI= [524.9, 533.1]
native-born mother - unemployed (second group)	481	N= 80 SE= 11.14 CI= [469.9, 492.1]	505	N= 121 SE= 11.01 CI= [494, 516]
foreign-born mother - full-time paid job (third group)	476	N= 425 SE= 5.45 CI= [470.5, 481.5]	489	N= 207 SE= 7.29 CI= [481.7, 496.3]
foreign-bon mother - unemployed (fourth group)	453	N= 40 SE= 17.36 CI= [435.6, 470.4]	467	N= 38 SE= 22.91 CI= [444.1, 489.9]
performance gap (first group – third group)	**43**		**40**	
performance gap (first group – fourth group)	**66**		**62**	
performance gap (second group – fourth group)	**28**		**38**	

Table 3.3: Performance gaps of students by considering the country of birth of their mothers and their job status by their mathematics skills (data from PISA 2012 Database, personal communication, May 18, 2014)

Table 3.3 shows the average scores of native and migrant students by taking the job status of their mothers into account in the category of mathematics. In both states, the best-achieving students have native-born mothers who work in a full-time job (first group) but the average score in Germany is higher than in Austria (529 respectively 519 points). A similar trend can be observed for the second group (506 respectively 481 points). As for the third group in both states, the average scores of the first two groups cannot be reached but still, the migrant students have a higher average score than in Austria (489 respectively 476 points). The performance gaps between the first and third groups clearly show that students with a migrant employed mother have relatively lower outcomes than students with a non-migrant employed mother (43 and 40 points). However, as for the fourth group, much lower educational outcomes can be observed. Whereas migrant students in Germany have scored an average of 467, the same group of students has reached an average of 453 points in Austria. Nonetheless, their

performance gaps with the first group are even greater (66 and 62 points) than of the third group. Moreover, if one compares the performance gaps between the second and fourth groups, a relatively large difference can be seen. Whereas the gap in Austria is 28 points by average, the gap between the same groups in Germany is 38 points.

As for the CIs, it can be observed that none of the third and fourth groups' CIs overlaps with those of the respective first groups which means that the differences in educational achievements are statistically significant. However, the comparison of the CIs of the second and third groups shows that their CIs are overlapping in both states; there are no significant differences between native students with unemployed mothers and migrant students with employed mothers. As for the comparison between the second and forth groups, it can be observed that in Austria, the CIs of these two groups are overlapping; the difference is not statistically significant. This is different than in Germany where the CIs of the groups are not overlapping, thus, there is a statistically significant difference between these groups of students; however, the third and fourth groups' CIs are overlapping.

		Mathematics		
		Austria		*Germany*
native-born father - full-time paid job (first group)	521	N= 3153 SE= 2.77 CI= [518.2, 523.8]	536	N= 2706 SE= 3.22 CI= [532.8, 539.2]
native-born father - unemployed (second group)	491	N= 55 SE= 12.43 CI= [478.6, 503.4]	501	N= 63 SE= 13.64 CI= [487.4, 514.6]
foreign-born father - full-time paid job (third group)	472	N= 696 SE= 4.75 CI= [467.2, 476.8]	486	N= 520 SE= 5.44 CI= [480.6, 491.4]
foreign-born father - unemployed (fourth group)	420	N= 49 SE= 19.75 CI= [400, 440]	too small sample	N= 26
gap (first group - third group)	**49**		**50**	
gap (first group – fourth group)	**101**		**too small sample**	
gap (second group – fourth group)	**71**		**too small sample**	

Table 3.4: Performance gaps of students by considering the country of birth of their fathers and their job status by their mathematics skills (data from PISA 2012 Database, personal communication, May 18, 2014)

Table 3.4 shows that especially students with a native-born father who is employed (first group) have the best average results. In Germany, this group of students has an average score of 536 points and in Austria 521 points. A similar pattern can be observed for the second group: Even though the results are lower than of the first group, German students have a higher score (501 points) than their Austrian counterparts (491 points). A further decline of the average scores can be observed in the third group where students with a foreign-born employed father have scored average results of 486 points (Germany) respectively 472 points (Austria). As for the fourth group, the sample size for Germany was too small to conduct their average score whereas in Austria, students with a migrant and unemployed father have an average score of 420 points. As for the performance gaps between the first and third groups, both states have similar outcome whereas the gap between the second and fourth group in Austria is even larger. However, the largest performance gap in this table is between the first and fourth group in Austria as it is more than 100 points great. Furthermore, it appears that the gaps appear larger if the fathers of the students are born abroad than if the mothers are non-native born.

This trend can be confirmed by the comparisons of the CIs. None of the third and fourth groups' CIs overlaps with the first groups' CIs which means that there are statistically significant differences between these groups of students. As in Austria, even if one would compare the CIs of the second and third group, a significant difference can be observed as the intervals do not overlap. This is different than in Germany, where at least the CIs of these two groups overlap and thus, this difference is not statistically significant.

What do these results show? Students with foreign-born mothers respectively fathers have relatively more often worse educational outcomes than students with native-born mothers or fathers. The bad educational outcomes are especially striking if the parents are unemployed. The negative effect on the educational achievements seems to be the strongest for students with an unemployed migrant father than for students with an unemployed migrant mother. This is not surprising as one would expect from other scientific articles such as from Gottfried, Fleming and Gottfried (1994) or Grolnick and Slowiaczek (1994) that the mothers tend to have a stronger positive effect on the educational achievements of their children. Moreover, this analysis partly supports the conclusion of Schnepf's (2007) research that shows that migrant students tend to struggle in mathematics but mostly in science.

This analysis shows that the worse the job status of the migrant parents is, the lower are the school performance of the students in Austria and Germany and the effect becomes more negative if the migrant father is unemployed. However, on the other hand, this analysis shows that even migrant students whose parents have a job have lower average scores than native students whose parents are unemployed. Actually, it was also planned to analyze the school performance of native and migrant students by the educational level of their parents as this variable can be regarded as part of the socio-economic status but the data sets which were requested did not appear; however, the enlarged literature review shows that the socio-economic status and educational level of migrant parents may indeed contribute to lower educational achievements as other scientific articles such as those of Crul (2013); Levels et al. (2008) or Marks (2005) already mentioned. In other words, the results from this thesis can confirm their assumptions. However, the fact that also the migrant students whose parents have apparently a higher socio-economic status (as they have full-time paid jobs) have also lower educational outcomes shows that the low socio-economic status cannot be the sole reason for the worse educational achievements. Discrimination by native students and teachers, students' own attitude towards school and the school system (Rosenbloom & Way, 2004; Schleicher, 2006; Schnepf, 2004, 2007) or other factors can also contribute to these results but this will not be further discussed in this paper; however, this information is worth to be mentioned.

4.2. Main findings

Overall, these results clearly show that native and migrant children do not have the same educational achievements. In most cases, migrant children have far worse school performances than their non-migrant counterparts. But are the hypotheses confirmed and how can the sub-questions being answered in order to answer the main research question? The following table shows an overview of the questions and the belonging hypotheses and their answers in short:

Questions/Hypotheses	Answer
- What are the educational differences of migrant children in Austria and Germany? → Migrant students in Austria and Germany have more likely worse educational outcomes compared to non-migrant native students	In most cases, migrant students have more likely worse educational achievements compared to native non-migrant students. In tables in which OECD average scores are available, it can be observed that native students tend to have higher scores than the OECD average whereas migrant students tend to have lower scores than their OECD average counterparts. However, some data sets suggest that migrant students may have at least almost equal average scores compared to native students. Therefore, the hypotheses can be considered as confirmed.
- To what extent does the socio-economic situation of the parents affect the educational achievements of their children? → Migrant students have worse educational outcomes because of their worse socio-economic situation	Migrant students who have unemployed parents have worse educational outcomes than parents who have a job. The negative effect seems to be stronger for students whose migrant fathers are unemployed. However, compared to native students, even if the parents have a job, migrant students tend to have lower educational outcomes than native students with unemployed parents. Moreover, the educational level of the parents is also crucial for the educational outcomes of their children. If migrant parents have a low educational level, then their children have more likely low educational achievements as well. However, the same phenomenon can be also observed for native students. Therefore, the hypothesis can be considered as partly confirmed as there is still an effect of the migrant status on the educational outcomes.

5. Conclusion

This bachelor thesis has dealt with main research question *"What is the role of the socio-economic position of parents for migrant children's educational achievements in Austria and Germany?"* In order to answer this question, several sub-questions and hypotheses were used. Besides, the literature review shows what other researchers have find out which factors may lead to an inequality of educational achievements between migrant and non-migrant students. However, as the most scientific

articles dealing with the same topic are often lacking a comparative character, it was decided to figure out what the educational achievements of migrant students in Germany and Austria are as both states have many commonalities so there is a more comparative character in this research. For the purpose of answering the main research question, a quantitative cross-sectional study based on existing statistics of the 2012 PISA study was used. Hereby, the results of migrant and non-migrant children in Austria and Germany and in some cases also the OECD average score were compared to each other. These secondary data clearly show that there are indeed lower educational achievements of migrant children in both Austria and Germany.

While analyzing the overall results of the 2012 PISA study, one can say that both Austria (overall 18th) and Germany (overall 16th) belong to the upper one-third of the participating states. In both states, the mean score (494 points) of the 2012 PISA study could be succeeded (Germany: 514 points; Austria: 506 points) (OECD, 2014). However, the literature review suggests that it could be founded out that in earlier PISA study results, especially migrant students had relatively larger educational gaps in both states compared to non-migrant students of the same age. This educational inequality is more obvious in Germany but also due to the fact that there are more scientific articles dealing with Germany than Austria. As in the articles of Marks (2005) or Schnepf (2004, 2007), the situation of migrant students in Austria is not mentioned for instance. However, it is decided to analyze the educational achievements of migrant students in Austria and Germany as both states have the same language and almost the same school system. Both facts give this research a unique comparative character which is seldom in scientific articles dealing with the educational outcomes of migrant students: In other words, this paper also includes comparative study because in this way, patterns or their differences can be found out. Though comparative study is often regarded to fit better to qualitative research, it can be used in quantitative studies like this as well (Babbie, 2010) as in this paper, due to the similarities in both states, differences in patterns can be found out easily without taking larger differences in language or school system into account.

If one wants to compare the results from this thesis with the findings of other researchers, it can be said that the assumptions of the scholars can be concluded. Scholars like Entorf and Lauk (2007); Marks (2005) and Schnepf (2004) assumed that especially migrant children whose parents are poorly socio-economically integrated have worse educational achievements. This paper confirms their assumption: Especially migrant students whose parents are unemployed have lower educational skills compared to all other groups who are tested in this research. Moreover, this research also shows that even migrant students whose parents have paid full-time jobs have less likely higher scores than non-migrant students whose parents are unemployed.

What can be concluded? There are many reasons why migrant children have relatively more often worse educational outcomes than their non-migrant counterpart. This research has found out that the worse educational achievements can be found out by the current job status of the parents of the migrant students. Especially migrant children with at least one unemployed parent have clear educational disadvantages compare to other groups who are tested in the analysis. However, this negative effect seems to be even stronger if migrant fathers are unemployed. Moreover, the literature review also shows that educational level of migrant parents is also of high importance: If migrant parents have only experienced primary education, then their children more likely tend to struggle in their educational achievements as the parents are less likely able to help their children with their homework but not only migrants are affected. To sum up: The success in schools can be still explained by the socio-economic status of the parents and this factor is for certain migrant groups stronger than for others. Especially migrants from Turkey have relatively more often worse educational outcomes as their socio-economic status is low whereas other migrant groups like from Poland have more likely higher socio-economic status and better educational achievements. It appears that if native parents have a low socio-economic status, then their children will have higher chances to experience educational disadvantages as well. However, this effect tends to be much stronger for migrants than for natives (Crul, 2013; Gebhardt et al., 2013; Levels et al., 2008; Schnepf, 2007; Schwantner, 2013b).

On the one hand, it appears that migrants in Austria may be slightly better educated than their counterparts in Germany. It can be partly explained by the distribution of migrant groups in both states

listed in Table 1.1. This advantage may enable their children to have better educational outcomes by their higher level of basic knowledge and thus may have higher scores in the 2012 PISA study than migrant children in Germany. On the other hand, the article of Dronkers et al. (2012) shows that the German students in Austria is only the fifth best-performing group which can be explained by the job status and the educational level of their parents. A large group of German migrants are working in bars so it may be concluded that their educational level and socio-economic status are relatively low and this can lead to huge disadvantages for their children's educational achievements. However, another relatively large group of German migrants working and living in Austria have a university degree so there have to be other reasons such as discrimination to the German population in Austria (Henckel, 2014; KarriereSpiegel, 2013).

Furthermore, compared to 2003, Germany has now a better equity while the performance of students in Mathematics has not changed in Austria by taking the socio-economic status into account. Reasons for this development are the improved school system (longer school days, free transportation and lunch programs and less tracking secondary schools) which were initialed after the bad test results for German students in the 2000 PISA study. However, the 2012 PISA study also shows that about 31 per cent of migrant students are below Level 2 in Mathematics (compared to 14 per cent of native students) (OECD, 2014; n.d.b.).

German policy makers have already thought about many different options to ensure better education to young migrant students in order to improve their educational outcomes on the one hand but also their chances to get a good job on the other hand. Through to the demographic changes, the government can no longer afford that children with migration background tend to have worse educational outcomes due to lack of support. The time will tell if these projects will be more successful in the future.

5.1. Limitations

However, this research was hampered by some limitations by the data sets from the 2012 PISA study. First of all, there was not always a clear distinction between the first and second generation of migrant children in the data sets. Indeed, there were questions in which children were asked where they have been born respectively their fathers or mothers. But especially for those students who have (at least) one foreign-born parent, it was no clear if the students themselves were born abroad as well. It was not possible to find these variables in the data sets, thus it was possible to answer that the first generation migrant children have huge performance gaps at school but unfortunately not directly for the second generation migrant students. This was clearly a problem for the validity of an existing statistics because it is interesting to get to know the educational achievements of migrant children in Austria and Germany: It is important to know if these students have also difficulties at school. However as a compromise, it was possible to get to know that the country of birth of the students' parents has indeed a negative effect on the educational achievements of children. By this outcome, it is supposed after having analyzed the data sets, second generation migrant children have also worse educational achievements than non-migrant students. So, instead of a pure comparison between first and second migrant students by their school performance, the students will only be distinguished by their own country of birth respectively country of birth of their parents.

Another limitation of this research is that in some data sets, the average OECD scores are not available. This is for the data sets which are not directly from the OECD (n.d.c) but from the PISA 2012 Database (personal communication, May 12, 2014). So it was not possible to figure out if the performance gaps in Austria and Germany are too high compared to the OECD average. Besides, in some cases, sample sizes were too small so there were no data concerning the mean performance of students. For instance, the sample size of students whose fathers are born outside Germany and are unemployed was too small to have data to work with in the data analysis.

However, the major limitation during the work on this bachelor is that the data sets concerning the educational level of the parents did not arrive in time. Actually, it was planned to compare the parents by their migrant status and the ISCED level. It was considered to compare parents with ISCED level 3a and 5a but as the data sets did not arrive after several weeks and other attempts to receive these data sets from the OECD, this idea had to be skipped and as a compromise, more scientific articles are used

which are discussed in the literature review. However, these data are not from the 2012 PISA study but they can provide a broader tendency of the educational achievements of migrant status by taking the socio-economic status into account.

5.2. Recommendations

As this research clearly shows, especially first generation migrant students in Austria and Germany have lower educational achievements than non-migrant native students; it can be said that these students have huge educational disadvantages. But what can the policy makers do to tackle this problem?

First of all, there should be better possibilities for the parents of migrant students to learn German. For instance, *free language courses* can stimulate migrants to learn a new language as they do not need to spend money for these courses. Policy makers shall provide enough opportunities that migrants learn German as soon as possible; furthermore, there shall be more information that these language courses exist in a city for example in churches or mosques. As for the migrant children, there also shall be more and better possibilities to learn German before they are enrolled in the elementary school. The *access to the kindergarten or pre-school* should be improved. Two ways are possible: Firstly, the access to kindergarten shall be for free. Secondly, children from age three to six should be obliged to go to the kindergarten. This is not just beneficial for migrant children but also for native children whose parents who are not able to afford the costs for kindergarten. Moreover, the language skills of the migrant children will be improved and have less likely huge educational disadvantages such as lack of language skills before they are enrolled in the elementary school. As for migrant students who just immigrated to either Austria or Germany, it has to make sure that these students get some language lessons in the afternoon to learn German with the help of qualified teachers. These language courses shall be paid by the state or private parties as there is a possibility that many migrants may not afford the costs. To make sure that both parents and children are seriously trying to learn German, there shall be regular tests to test their learning progress. These impulses are important to ensure that migrant parents and children are learning a sufficient level of German to make their daily lives much easier due to the language abilities. Besides, these lessons may lead that the families are teaching themselves German at home, thus speaking German at home at all. This can also lead to better educational achievements of migrant children.

Another possible solution to get better educational outcomes of migrant children is that the states may provide *school materials* for students whose parents do not have the financial resources to buy them on their own. For instance, schools can offer used school books or calculators which are still in a good quality for free or at least for a lower affordable price. This is not only beneficial for migrant families only but also for native students whose parents with a low socio-economic status. This is of high importance as this research has clearly found out that the educational success still depends on the socio-economic status of children's parents as especially migrant children with at least one unemployed parent have much lower average scores compared to native students who have at least one employed parent. Moreover, the vicious circle of poor socio-economic status and lower educational outcomes must be broken down by the politics. It has to make sure that even children with unemployed parents can have a good high school diploma and may have the possibility to get a job even if the families of migrant children have a low socio-economic status.

Also, more full-time schools should be developed in which *free guided homework* is offered in the afternoon. By doing so, not just migrant children will get more likely competent help while doing their homework or discussing their problems in certain subjects. According to Schnepf (2007), in states such as France or Sweden where most schools are full-time and offer guided homework after class, migrant children more likely have higher chances to obtain a good school diploma and get high education.

Because the OECD average scores for students who are born abroad are higher than in Austria and Germany, the policy makers of these states have to analyze how other states could tackle this issue to an extent that migrant students have nearly equal educational outcomes as their native counterparts.

But the policy makers need to make sure if the solutions of the other states can be easily transformed into the Austrian respectively German school system.

5.3. Further Research

It has to be analyzed in future research is to which migrant groups have more likely better educational achievements than other ones and why it is the case. Do cultural factors such as religion or tradition play an important role of determining the educational outcome of a migrant child? Is good education in a certain migrant group more important than in another one? These factors have to keep in mind to ensure that educational achievements of migrant children will be less likely generalized to all migrant groups. This discussion also leads to the attitude towards education of migrant children: Which groups of migrants have the most positive attitude towards and how in far does parenting play a role? This aspect can be considered as important because it is assumed that some migrant groups such as Turkish migrants consider their own tradition as being more important than a good school education compared to other migrant groups like Moroccans as the article of Crul and Vermeulen (2003) suggests. There shall be more future research in this area to compare the educational achievements of larger migrant groups in order to make policy acts in which migrant groups with lower educational skills may benefit from.

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