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What Works in Migrant Education? A Review of Evidence and Policy Options

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ABSTRACT

Education plays an essential role in preparing the children of immigrants for participation in the labour market and society. Giving these children opportunities to fully develop their potential is vital for future economic growth and social cohesion in OECD countries. But migrant students in most OECD countries tend to have lower education outcomes than their native peers. Extensive previous research has described the system level, school level and individual level factors that influence the education outcomes of migrant students. Building on such previous research, this paper looks at the ways in which *education policies* can influence these factors to help provide better educational opportunities for migrant students.

RÉSUMÉ

L'éducation joue un rôle crucial dans la préparation des enfants d'immigrants au monde du travail et à la vie sociale. Donner à ces enfants l'opportunité de développer pleinement leur potentiel est une nécessité pour assurer la croissance économique future et la cohésion sociale dans les pays de l'OCDE. Cependant, les résultats scolaires des étudiants migrants sont en moyenne plus faibles que ceux des natifs dans la plupart des pays de l'OCDE. De nombreux travaux de recherche ont décrit les facteurs influençant la performance des migrants, au niveau du système d'éducation dans son ensemble, comme au niveau de chaque école et de chaque individu en particulier. En s'appuyant sur les résultats de la recherche existante, ce papier étudie comment les *politiques d'éducation* peuvent à leur tour influencer ces facteurs, afin de donner aux étudiants migrants les meilleures opportunités.

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WHAT WORKS IN MIGRANT EDUCATION? A REVIEW OF EVIDENCE AND POLICY OPTIONS

By Deborah Nusche[1]

1. INTRODUCTION

1. Migrant education is receiving increased attention in all OECD countries. Net migration to the OECD has tripled since 1960. The proportion of students who are foreign-born or have foreign-born parents now exceeds 10% in Germany, Belgium, Austria, France, the Netherlands and Sweden, and is above 20% in Switzerland, Australia, New Zealand, Canada and Luxembourg (OECD, 2007)

2. Demographic developments, especially population ageing, are likely to further accelerate immigration inflows. The successful integration of migrants into OECD labour markets is not only a matter of providing equal opportunities to all residents; it is a social and economic necessity. Education plays an essential role in preparing the children of migrants for participation in the labour market and in society. Giving these children opportunities to fully develop their potential is vital for future economic growth and social cohesion in OECD countries.

3. However, in most OECD countries, migrant students tend to have lower education outcomes than native students. Often their *access* to high quality education is restricted by a range of factors, including residential segregation, selective mechanisms and resource inequality. In addition, their *participation* in schools is often interrupted as they tend to drop out and leave school early more frequently than their native peers. Finally, as the PISA studies have consistently shown, there are significant *performance* gaps between native and migrant students in most OECD countries, with first-generation migrants lagging on average about 1.5 school years behind their native counterparts (OECD, 2007).

4. These are dreary results. But the PISA studies also show that this situation is not inevitable. For example, in Australia, Canada and New Zealand, there are virtually no performance differences between migrant students and their native peers. Migrant students perform better in these countries than in the rest of the OECD, even when socio-economic background is controlled for. In Switzerland, students of Turkish origin perform significantly better than students of Turkish origin in Germany and Austria despite their otherwise similar background characteristics. In Sweden, second-generation migrants make greater gains vis-à-vis first-generation students than in other OECD countries. These country differences suggest that

[1] The author would like to thank Moonhee Kim for her overall guidance as well as substantial contributions to the section on school choice. Deborah Roseveare and Miho Taguma are thanked for their valuable support, advice and comments. This paper also benefitted from comments on earlier drafts by Laurence Lessard-Philips, Janna Teltemann, Beatrice Schindler-Rangvid and Gregory Wurzburg.

when the right conditions are provided, the educational gap between migrant and native students can be significantly narrowed if not closed.

5. Extensive previous research has described the range of factors influencing the educational success of migrant students. While broader societal conditions such as immigration, housing and social policies may influence migrant education outcomes, many factors of disadvantage are in the remit of education policies (for a review, see for example Brind *et al*., 2008; Heckmann, 2008):

- First, structural features of education systems such as school choice, tracking, selection mechanisms and resource inequalities may contribute to segregation and have disproportionately negative impacts on migrant students.

- Second, features of each individual school such as teacher expectations, classroom environments and school organisation contribute to shaping migrant students' learning experience.

- Third, individual student characteristics including socio-cultural background and language proficiency are also important determinants of migrant students' educational success.

6. Building on such previous research, this paper looks at the ways in which education policies can influence these factors to help provide better educational opportunities for migrant students.

7. First, in section two, the paper focuses on policies that aim to alter the structure and inputs of education systems. Such *system level policies* may include measures to desegregate schools and to redistribute financial and human resources. They are generally implemented by national or state authorities and often have implications for all students enrolled. While in some countries policies designed to change the socio-demographical mix of students are difficult to achieve politically, they seem to hold promise to contribute to closing the achievement gap.

8. Then, section three deals with *school level policies* that seek to shape school and classroom environments as well as school-home relationships. While all OECD countries have recognised the importance of providing language support and integrating intercultural approaches into course content and teaching strategies, research shows that there are great variations in the degree to which these policies are actually implemented at the school level. There is room for improvement in providing targeted support to bridge the school and home environments of migrant students and to make classrooms more responsive to their needs.

1.1 Scope and definitions

9. This paper is part of the analytical strand of the OECD Thematic Review on Migrant Education. It will be complemented by additional desk-based analysis (1) exploring statistical data from PISA on the current situation of migrant students in OECD countries, and (2) analysing information from participating countries to provide an overview of existing migrant education policies.

10. The educational levels covered by this review are pre-school, primary school and secondary school (ISCED 0-3). The main focus is on first- and second-generation migrants enrolled in these levels of education. Following the definition adopted by the OECD Programme for International Student Assessment (PISA), "first-generation migrants" refers to those children who were born abroad and whose parents were also born abroad, while "second-generation migrants" refers to those children who were themselves born inside the receiving country but whose parents were born abroad. By contrast, all children born in the receiving country who have at least one parent who was born inside the country are considered "native".

11. More specifically, the main emphasis of this review is on migrant students from families with low socio-economic status (SES). These children are likely to face a double disadvantage in education related to their own immigrant status and to the educational and / or financial handicap of their parents. These two disadvantages are often closely intertwined as many migrant groups experience higher levels of poverty than the mainstream native groups.

12. For the purpose of this review, "education outcomes" are defined in terms of access, participation and performance. Three criteria are thus of interest to measure the success of different policies in improving the migrant students' education outcomes: (1) whether the policies improve migrant students' access to quality education, (2) whether they enhance migrant students' participation in quality education by reducing drop-out and early school leaving, and / or (3) whether they increase migrant students' performance levels.

13. It should be noted that this paper does not aim to give an exhaustive overview of existing migrant education policies. It aims to focus on those strategies and policies where there is some evidence in terms of their impact on migrant students' education outcomes. Furthermore, the scope of this paper is limited to those strategies that are in the remit of education policy and does not consider broader strategies such as immigration, housing or social policy.

1.2 Limitations and review methodology

14. Empirical research on the policies impacting on migrant students' learning outcomes is conceptually and methodologically challenging. The term 'migrant students' refers to a highly diverse group of children with very different geographical, cultural, ethnic and linguistic backgrounds. The specific situation of different migrant groups varies according to their social and cultural background, as well as the context and characteristics of the receiving country and region. This heterogeneity makes it difficult to draw conclusions about the educational experiences of migrants in general.

15. Moreover, migrant students' educational success is shaped by a range of extra- and intra-institutional factors including family background, abilities and attitudes, organisation and delivery of teaching, school practices and characteristics of the education system. Studies measuring the impact of different education policies on migrant students' achievement tend to use data sets and methodologies providing limited measures of learning and partial indicators of the range of important factors. The outcomes and policy recommendations of such research are sometimes contested, especially when they tend to generalise results across different contexts.

16. Bearing these limitations in mind, a range of policy-relevant conclusions can nonetheless be drawn from the numerous studies available in this field. This review intends to synthesise common results from the economics, education, psychology and sociology literatures. It involved a systematic search for policy evaluations and academic papers analysing migrant education strategies. Essentially, three types of policy-related research were included in the review: large-scale quantitative studies, experimental studies and case study evaluations. Each methodology has its advantages and drawbacks:

17. Most of the *large-scale quantitative studies* use existing variations in population characteristics and outcomes to study the effects of different policies on migrant students' educational success. For example, to study the effect of class size reductions they may compare the outcomes of migrant students who are in smaller classes to those who are in bigger classes, and use statistical controls for other key determinants of the outcomes. One of the strengths of such methods is that they allow to use data from large and representative samples. On the other hand, weaknesses of such studies include that the data used are often cross-sectional *i.e.* gathered at only one point in time, and that unmeasured variables may impact on the relationship between policies and outcomes.

18. By contrast, *experimental studies* have the advantage of being able to measure largely unbiased relationships between policies and outcomes. They compare outcomes of individuals with similar background characteristics assigned randomly to either experience a particular policy or to be assigned to a control group that does not experience this policy. The major weakness of these studies is that they typically involve small and unrepresentative samples. Experiments in this field are also very rare.

19. Unfortunately, for some of the policies covered in this report, neither large-scale quantitative studies nor experimental evidence was available. However, many policies have been evaluated in small-scale *case studies*, either quantitative or qualitative. Such case studies use a range of different methods, such as analyses of achievement data, participant questionnaires and interviews to understand the ways in which policies influence the learning experience of those migrant students enrolled in the case study schools. Often the conclusions from such case studies cannot be generalised beyond the particular students who experienced the policy. But they can help us understand certain processes in which these policies may play out and can suggest hypotheses for further testing.

20. While hundreds of studies are available in some of the policy fields covered, the findings are sometimes contradictory due to differences in the research design, data sets, statistical techniques and analytical approaches. Therefore, and because of the sheer number of relevant studies, specific targeted searches were also made for prior *reviews and meta-analyses* of the topics covered. These helped to uncover different conceptual and methodological strands of the literature and to make sense of contradictory research findings.

21. In addition, previous *OECD Thematic Reviews* on related topics such as teacher policy (OECD, 2005a), assessment approaches (OECD, 2005b), early childhood education and care (OECD, 2006a), equity (Field *et al.*, 2007), as well as the analytical reports of the OECD PISA studies (OECD, 2004; 2006b; 2007) were reviewed for relevant findings. The paper also draws from education chapters of OECD Economic Surveys (e.g. OECD, 2008).

22. The evaluative literature in this field is dominated by English-language research. Many of the studies reviewed refer to policies in English-speaking countries, such as Australia, New Zealand, the United Kingdom and the United States. In addition, English-language studies were available on some policies in Denmark, Israel, the Netherlands, Sweden and Switzerland. Articles published in French and German were also occasionally drawn from.

2. SYSTEM LEVEL POLICIES

23. The educational outcomes of migrant students are not only influenced by arrangements specifically targeted at migrant students but also by the more generic policies and educational structures in each country. This first part focuses on ways in which the structure and inputs of education systems can be shaped to improve the access, participation and performance outcomes of migrant students in OECD education systems.

24. Section 2.1 identifies changes in educational structures likely to reduce segregation and improve migrant students' access to high quality instruction. Section 2.2 focuses on ways in which additional resource inputs can be efficiently allocated to ensure that migrant students participate as much and perform as well in education as their native peers. Section 2.3 discusses one particular resource input, teaching staff, and the ways in which high quality teachers can be attracted to, and retained in, schools with high proportions of migrant students.

2.1 Reducing educational segregation

25. Many OECD school systems face challenges related to the segregation of students along socio-demographic lines. The clustering of students with similar background characteristics may lead to polarised education systems with some schools enrolling mostly well-off and native students and others enrolling large numbers of disadvantaged and migrant students.

26. Research suggests that concentration of migrant students in schools can be detrimental to their education outcomes. Regression analyses using cross-country data from studies such as TIMMS, PIRLS and PISA show that across OECD countries a higher degree of segregation is associated with a higher unexplained test score gap between native and migrant students (Schnepf, 2004; Scheeweis, 2006).

27. Schnepf (2004) shows that in Canada, France, Germany, New Zealand, Switzerland, the UK and the US, students in schools where migrants are overrepresented had lower performance levels than students in other schools even if students' and schools' socioeconomic background were held constant. The high concentration of migrant students was found to have a negative effect on the performance of both natives and migrants in these schools. Studies from countries such as the Netherlands and Sweden confirm the negative impact of migrant concentration in schools on student performance (Karsten *et al*., 2006; Nordin, 2006; Szulkin and Jonsson, 2007).

28. The concentration of migrant students in schools often reflects residential patterns. In the traditional catchment area model, students are assigned to a school in their neighbourhood. Thus, where housing is highly segregated, schools tend to be segregated as well. The schools perceived to be of better quality are often located in areas where property prices and rents are higher. Good quality schooling thus often has an implicit price in the housing market and migrant students from low socio-economic backgrounds may not have access to it (Field *et al.*, 2007).

29. In addition, in countries allowing for school choice, the concentration of students along socio-demographic lines is sometimes reinforced by the choices parents make regarding the school in which they enrol their children. Research shows that native parents tend to be more likely than migrant parents to use

school choice to opt out of schools with high concentration of migrants, thus reinforcing segregation between schools (Hastings *et al*., 2005; Rangvid, 2007b).

30. Finally, segregation may be aggravated by the design of educational systems, especially by policies that are broadly referred to as "ability grouping", *i.e.* the sorting of students into classrooms, tracks and schools according to their perceived intellectual ability (Ammermüller, 2005; Schneeweis, 2006). Research suggests that in countries practicing ability grouping, migrant students tend to be more likely than natives to be grouped into the tracks with lower curricular standards and lower average performance levels (e.g. Resh, 1998; Mickelson, 2001).

31. As discussed in Section 1.1, residential and housing policies are beyond the scope of this paper. The remainder of this section will look at educational structures and policies related to school choice and ability grouping that may help desegregate schools and classrooms and enhance migrant students' education outcomes.

Managing school choice to avoid segregation

32. To ensure that all children have access to good quality schools, many countries have introduced school choice arrangements. School choice aims to ensure the right of parents to decide which school their child will attend, independently of the area they live in. It is also expected to increase efficiency in education, by enhancing competition between schools and pushing schools to improve quality and reduce costs.

33. There is little empirical evidence to clearly support or reject these expectations. Overall, the results from PISA 2006 indicate that student performance is higher in systems with a higher degree of school choice and competition, but this positive effect is no longer significant when other factors related to student performance are included into the estimation (OECD, 2007). Empirical studies conducted in different countries often report mixed results, showing that some types of school choice have a positive impact on certain groups of students, but other types do not (Björklund *et al*., 2004; Mickelson *et al*., 2008).

34. Although the empirical evidence on the impact of school choice is mixed, there is a risk that it may lead to increased socio-demographic segregation between schools. This sub-section explores the ways in which school choice may reinforce segregation and suggests a number of policy options to mitigate its potentially negative effect on migrant education.

School selection criteria

35. One strand of the literature focuses on the criteria used by oversubscribed schools to select among applicants. In fact, school choice rarely means that parents have complete freedom of choice. As school places are limited, the schools with the highest perceived quality are likely to have more applicants than places. If oversubscribed schools are allowed to give preference to students with higher performance levels or who live near the school, school choice arrangements might reinforce segregation. In Sweden, for example, a school reform which allowed independent schools to select students by ability led to a marked increase in segregation across schools by immigrant status (Björklund *et al*., 2004).

36. Alternatively, several studies suggest that choice plans should use simple lotteries to pick among the applicants for oversubscribed schools in order to promote a more diverse student intake (Godwin *et al*., 2006). Education systems can also consider providing financial incentives for oversubscribed schools to enrol migrant students (Field *et al*., 2007). For example, school funding may be weighted according to socio-demographic characteristics of the student population. The idea is that good schools will seek to enrol migrant students from low socio-economic backgrounds because they know that with the additional

money provided they will be able to provide additional support for the child to show improvement trends and reach performance levels (Hoxby, 2001) (see also Section 1.2).

Reducing "native flight"

37. A second strand of the literature focuses on the issue of "native flight" in schools with already high proportions of migrant students. Studies have shown that it is mostly the more well-off native families who exercise school choice. In Denmark, for example, research suggests that since public school choice was introduced in the 1990s, segregation has increased because native students tend to choose schools with fewer immigrant and low-SES students (Bloom and Diaz, 2007). Rangvid (2007b) shows that native Danes tend to "opt out" of local schools when the proportion of migrants is between 35 and 40%. In the Netherlands, according to reports by school principals, a percentage of minority pupils exceeding 50-60% causes Dutch parents to leave the school (Karsten, 1994).

38. To encourage native students to choose schools with diverse student populations, attractive schools with special curricula can be placed in relatively disadvantaged areas. In the US, such "magnet schools" offering special math, science or art curricula have existed since the 1970s (Heckmann, 2008). They aim at providing high quality education in a specialised and integrated learning environment. Generally, transport is provided for children, mostly from well-off white families, to be brought to these schools outside their catchment areas. Some magnet schools in the United States were designed as desegregation tools using controlled choice student assignment plans. In this case, they consider a student's race in the assignment process in order to balance a school's racial diversity (Mickelson *et al*, 2008).

39. Other initiatives focus on raising the quality of existing schools with high proportions of migrant students. In Switzerland, where growing numbers of native middle class families were leaving inner city districts with ethnically diverse populations, the educational authorities responded with an area-wide model of quality assurance in multi-ethnic schools (Gomolla, 2006). The QUIMS (Quality in Multi-Ethnic Schools) programme offers extra resources and professional support to schools with 40% or more students from migrant backgrounds. Among other things, the project explicitly aims at raising the standards of education in these schools to attract more Swiss and middle class students (Gomolla, 2006).

Information and support for migrant parents

40. A third strand of the literature stresses the importance of providing information and logistical support to migrant parents in order to strengthen their capacity to exercise informed school choice. Field *et al.* (2007) point out that those students with weaker parental support are likely to be disadvantaged by school choice, because their parents may be less well informed about the available options. Language barriers, resource constraints, lower levels of education or lack of knowledge of the school system may hinder migrant parents' capacity to enrol their children in the most appropriate schools. Schneider *et al*. (2000) find that while choice policies increase the level of information of all parents, the quantity and quality of information seems to be highly correlated with parents' level of education. Hastings *et al*. (2005) find that parental preference attached to a school's test score level is lower for low-income students.

41. Practical problems such as lack of transportation, concerns about security, operating hours of schools and workplace arrangements can also hinder parents' exercise of school choice (Lacireno-Paquet, 2004; André-Bechely, 2008). If no public transportation arrangements are supplied, low-income and single-parent families will be disadvantaged. They may lack the resources necessary to support daily transport to a faraway school. But even when free buses are provided to bring children to their school of choice, migrant parents may be less likely to opt out of neighbourhood schools. While research shows that proximity is an important concern of all parents, it seems more important to low-income ethnic minority parents (Hastings *et al*., 2005).

42. Country practice provides some examples of policies to improve parental information. Godwin *et al*. (2006), for example, describe the school choice information programmes organised by a large urban district in North Carolina. Each school developed materials to promote its particular programmes and organised information and enrolment sessions for parents. Other activities included volunteers undertaking home visits to low-income and immigrant families, "choice booths' in shopping malls, a district-wide information fair and hotlines in English, Spanish and Vietnamese to explain the different available programmes. Documentation shows that 95% of families submitted their choices in the following year and that African-American parents participated at an even higher level (Godwin *et al*., 2006).

43. Some policies attempt to influence the preferences of native and migrant parents simultaneously. In Denmark, the *Copenhagen Model* for Integration was recently introduced by the Copenhagen city authorities to address native flight and segregation (Bloem and Diaz, 2007). The model is based on limited municipal intervention to expand the choice options for migrant students. Schools with a predominantly native student population are trying to attract migrant students by providing specific preparation and training for teachers and guaranteeing an integration worker or a translator of ethnic minority background to be employed at the school. Likewise, schools with high proportions of migrant students are trying to reach out to ethnic Danish parents to have them enlist their child in school through various PR campaigns. In particular, schools are collaborating with kindergartens to persuade parents to choose the local district school.

Reducing the negative impacts of ability grouping

44. While the concentration of students with *similar socio-demographic background* is widely considered undesirable, many systems deliberately favour the concentration of students with *similar levels of ability* in schools and classrooms.

45. Ability grouping is a very common education policy, used in most countries at some stage of the educational trajectory. In a broad sense, it refers to policies and practices that sort students within classrooms, between classrooms and between different types of schools according to criteria such as their previous grades, teachers' recommendations, subject-matter achievement or standardised tests of intelligence (Schofield, 2005).

46. These policies have a common goal of creating some degree of academic homogeneity within classrooms, tracks or schools. Some researchers argue that such grouping practices are necessary to adapt curricula and teaching practices to the specific needs of students with different levels of ability, providing instruction at the optimal level and pace of each achievement group (Slavin, 1987; Lou *et al.*, 1996).

47. Studying the structure of peer effects, Hoxby and Weingarth (2005) suggest an alternative model. They find that a higher achieving peer is better for a student's own achievement all else being equal, but that high achievers do appear to benefit from interacting with peers a bit below them. They suggest that policies that aim at creating interactions between high and low achievers should maintain continuity of achievement levels.

48. At the same time, there are risks that ability grouping may hinder the learning of those who are grouped into the lowest tracks (Field et al., 2007). Being labelled as a "low-ability student" at an early age may lead students to internalise low expectations and loose motivation for, and interest in, education (Jussim and Harber, 2005). Moreover, in some settings, lower tracks may provide less stimulating learning environments, due to differences in curricular standards, teacher expectations, instructional methods and student compositions (Oakes, 1995; Ammermüller and Pischke, 2006; Entorf and Lauk, 2006).

49. The potential negative impacts of ability grouping are especially salient for migrant students. In some environments, migrant and low-SES students are disproportionally grouped into the least academically-oriented schools or tracks (Resh, 1998; Mickelson, 2001; Prenzel *et al.*, 2005; Strand, 2007). Some types of ability grouping, especially when it happens at an early age, may lock them into low level instructional environments before they have had a chance to develop the linguistic, social and cultural skills to prove their full educational potential (Entorf and Lauk, 2006). This sub-section investigates the reasons why migrants are often concentrated in low-ability classes and explores a range of policy options to reduce the potential negative impacts of ability grouping.

Avoiding biases in grouping practices

50. Research shows that ability grouping is in fact often based on criteria other than sheer intellectual capacity and potential as implied by the term "ability" (Schofield, 2005). Numerous studies show that other factors such as socio-economic background, ethnic origin and migrant status also seem to play a role in the grouping process.

51. Studies from a range of countries show that at similar achievement levels, migrant, minority and low-SES students are sometimes more likely to be placed into the lower tracks of mainstream education than their native peers. In North Carolina, Mickelson (2001) finds that African American students are more likely than white students with similar achievement scores to be placed in low level tracks. In Israel, Resh (1998) concludes that socioeconomic status, ethnic origin and gender affect assignment to different educational tracks. In Germany, Prenzel *et al*. (2005) find that, after controlling for reading and mathematics scores in PISA, a child from the top quartile of socio-economic background is four times more likely to go to the highest track of secondary school than a child from the second lowest quartile of socio-economic background. In the UK, Strand (2007) reveals that, after controlling for prior attainment, Black Caribbean pupils are less likely to be entered for the higher tier papers in GCSE science and mathematics than their peers (at a level around 67% of that of White British students).

52. Moreover, a recent OECD study on equity (Field *et al.*, 2007) revealed that some migrant and minority groups are more likely than native peers to be diagnosed as having "special needs" which results in their placement in separate institutions providing special education. In the United States, African-American students are nearly 2.5 times more likely than whites to be identified as "mentally retarded"; in Switzerland more than half of the children in special classes and schools are not of Swiss nationality; in Flanders, children with foreign nationality are transferred to special education faster than their native peers; and in Hungary about 40% of Roma children have been labelled as "mildly mentally disabled" (Field *et al.*, 2007). Studies show that the overrepresentation of migrant and minority children in special needs schools can partly be explained by factors such as language difficulties, culturally different behaviour, lack of early childhood support and negative stereotyping (Donovan and Cross, 2002).

53. In systems where students are sorted into different school types based on teachers' recommendations, the disproportional assignments of migrant students to lower tracks or school types may be related to biases in teacher judgements. In Germany, for example, Spinath (2005) shows that the diagnostic competencies of German teachers concerning their primary school students were very poor. Parental involvement can also play a role. In some settings, native parents with more advantaged socioeconomic characteristics may be more likely to override teachers' recommendations and more often get their children into a more academic track (Oakes, 1995; Schütz *et al.*, 2007; OECD, 2008).

54. The above findings suggest that the assignment to different tracks based on teachers' diagnosis does not work very well. To reduce the risk of biases in teacher judgements, education systems using ability grouping at any point in the educational pathway need to invest in developing teachers' diagnostic

competences, ensure that criteria used are fair and transparent, and provide assessment mechanisms that allow taking into account linguistic and cultural differences.

55. It might be argued that the problem of unreliable sorting could be addressed by using more objective measurements of ability, such as achievement on standardised tests. But migrant children's achievement levels at an early age may be a weak indicator of future potential (Brunello *et al.*, 2005). Indeed, students' measured ability at any given point in time is a combined result of their own intellectual potential and the previous opportunities they have received to develop this potential (Schofield, 2005). Children coming from homes that have not provided them with the linguistic, educational and financial resources necessary to support their learning may have their potential underestimated in such tests.

Postponing the age of tracking

56. The impact of tracking into different school types seems to be especially harmful to migrant students when it happens at an early age. Early separation from mainstream students may not allow them to develop the linguistic and culturally relevant skills necessary to perform well before being assigned to a lower level system. Entorf and Lauk (2006) find that separating students into different tracks at an early age amplifies the learning differences between native and migrant students that already existed before they are allocated to tracks. It seems therefore essential to give migrant children sufficient instructional time to develop their full potential before assigning them to high or low achieving groups.

57. Several cross-country studies find that, after controlling for a range of other factors, early tracking is associated with greater inequality of outcomes but does not have any discernible effect on mean performance (Schütz *et al.*, 2005, Hanushek and Wössmann, 2006, Meier and Schütz, 2007). Thus it seems that early tracking poses risks to equity without improving the overall efficiency of education systems. OECD (2008) concludes that the gains in efficiency from having more homogeneous schools are offset by the adverse effects on lower ability students of being educated in separate institutions.

58. The age of selection into different tracks accounts for more than half of the between-school differences across OECD countries and is associated with larger socioeconomic disparities (OECD, 2007). Analyses based on international student assessments suggest that each additional year of untracked schooling can contribute to reducing the overall impact of home background on student outcomes (OECD, 2007). Experiences of countries having postponed early tracking provide some information on the potential impact of such system-level policies.

59. Field *et al* (2007) provide the following evidence. Meghir and Palme (2005) find that Swedish reforms in the 1950s replacing tracking at age 12 with a comprehensive system increased overall attainment and improved equity. Pekkarinen *et al*. (2006) show that a Finnish school reform in the 1970s postponing tracking from age 11 to 16 and introducing a uniform curriculum in lower secondary schools improved equity in later earning outcomes. The most recent example is Poland where tracking was postponed from age 14 to 15 in 2002. When PISA data from 2000, 2003 and 2006 is compared, it seems that this reform is associated with improvements in the performance of low-performers without harming the achievement of high-performers (OECD, 2007).

Reducing the number of school types

60. PISA 2006 data shows that in countries with a greater number of distinct school types, student background tends to have a significantly larger impact on student performance. The number of school types or distinct educational programmes accounts for 27% of the cross-country variation among OECD countries in the strength of the relationship between socioeconomic background and student performance (OECD, 2007).

61. The risk of having many differentiated school types is that a relatively small number of very low-performing students may be concentrated in the lowest type, representing a rump of poor performance and low expectations (OECD, 2008). Another risk is that in more differentiated systems it can be easier to move weak performers to lower school types rather than investing extra resources to raise their performance (OECD, 2007).

62. Therefore, some countries or states (*e.g.* Luxembourg, the Slovak Republic, some German states) are encouraging reforms to combine several lower school types into one. In Germany, for example, some Länder have adopted two-tiered school systems instead of three-tiered systems by combining the former *Hauptschule* and *Realschule* tracks. Most of these policies are too recent to provide longitudinal evidence of their impact.

Ensuring high curricular standards for all

63. In many countries, the material covered in different tracks is very different. Ability grouping with such curricular differentiation quite quickly locks students into their initial low-track placement because they are not even exposed to the material they would need to move into higher tracks (Schofield, 2005). Some systems that use ability grouping within schools reserve high level curricula for the most "academically able" students.

64. However, some research indicates that being taught a rigorous and higher level curriculum could actually benefit *all* students. Arnett (2007), using PISA 2003 data from 32 countries finds that the more standardised the curriculum within a country, the weaker the effect of student socioeconomic background on student learning.

65. In the US, several studies have revealed that an enriched, accelerated curriculum[2] is more effective than a low-level remedial curriculum to increase the achievement of initially low-achievers (Oakes *et al*., 1990; Peterson, 1989; Levin, 1988; Burris *et al*., 2006). Analyses of data from the Second International Mathematics Study (SIMS) and the Third International Mathematics and Science Study (TIMSS) further indicated that low track, remedial curricula actually depressed the mathematics performance of American students rather than improving it (Burris *et al*., 2006).

66. These findings suggest that all students including those with initially low achievement can benefit from being given educational opportunities similar to those of initially high achieving students. Providing more similar material in different tracks can increase the educational opportunities of low-achieving students to catch up and move on to more challenging instruction. The *Accelerated Schools Project* in the United States, for example, is based on the idea that through challenging assignments building on students' strengths, all students may become academically able (Levin, 2005).

2. In their initial form, accelerated classes in the US represented an attempt to meet the needs of "gifted and talented" learners. The tradition of accelerated classes began in the 1980s. Some states, such as New York, have mandated that all school districts offer an accelerated curriculum in middle schools, to meet the needs of "gifted" students (Burris et al., 2006).

2.2 Allocating resources for migrant education

67. One of the most common policy approaches in migrant education is to allocate additional resources, in the form of finance or teaching staff, to schools enrolling high proportions of migrant students. The rationale for such redistributive policies is twofold. Migrant students are in many countries more likely to be enrolled in underfunded schools located in deprived areas, and additional resources may be necessary to bring these schools *up to parity* with the mainstream (OECD, 2005a; Darling-Hammond, 2000; Pugin, 2007). Going further, it is argued that schools enrolling high proportions of migrant students should be allocated additional resources *on top of* an equitable distribution of services and funding so that they can respond more effectively to these students' specific learning needs.

68. Whether such funding initiatives are successful in narrowing the achievement gap between native and migrant students depends of course on the types of programmes the money is actually spent on. But research has shown that the strategies used to calculate and distribute these resources also have an impact on whether they will be used effectively or not. In the design of resource allocation mechanisms, policy makers need to (1) determine target groups for additional funding, (2) decide at what administrative level of the education system these resources should be managed, and (3) distribute resources among different levels of education. The following sections will address these three issues in turn.

Determining target groups

69. The first step in devising resource allocation mechanisms is to determine the exact target group: should all students with educational disadvantages be targeted or should migrant students be singled out for specific financing? Some countries, such as France, are precluded from targeting on ethnicity for constitutional or other reasons.

70. Research has shown that migrant status often overlaps with low socio-economic status, and many migrant groups experience higher levels of poverty than the majority (Brind *et al*., 2008). Hence, allocating additional resources to schools with low-SES students is likely to reach many migrant students as well.

71. However, while poverty and parental education may be among of the most marginalising factors in terms of educational achievement, in some countries migrant students' educational disadvantage remains after controlling for socio-economic status (Brind *et al*., 2008). This suggests that funding strategies to tackle particular priority areas for migrant students are relevant.

Targeting disadvantage

72. Most funding strategies adopt an integrated approach directing additional resources to all "disadvantaged" students. They calculate per-student funding based on student background criteria that tend to be correlated with low educational performance, such as family income, parental education, migrant status and language spoken at home. Migrant students are likely to be eligible under several types of criteria, as they often face multiple disadvantages linked to their migrant background on the one hand and to their relatively low socio-economic status on the other.

73. In the US, for example, *Title I* of the Elementary and Secondary Act, the largest compensatory federal education programme, is aimed quite broadly at "disadvantaged students at risk of educational failure" (Kirby *et al*., 2003). It provides additional funding to virtually all the highest poverty schools, which are defined as those with 75% or more of students eligible for free and reduced-price lunch. *Title I* schools also serve higher than average percentages of minority, bilingual and migrant students (Kirby *et al*., 2003).

74. Another example is the Educational Priority Policy in the Netherlands, which assigns different levels of additional funding to schools depending on their students' background characteristics. For funding purposes, each native Dutch student is counted as one, while students with lower educated parents are counted as 1.25 and ethnic minority students are counted as 1.9 (Karsten, 2006). The weighting system is currently under review and will in the future be largely determined by parents' level of education rather than by their ethnicity.

75. In addition to student-based criteria, some funding strategies take into account the characteristics of local communities such as high unemployment, concentrations of migrant families and adverse structural conditions. Such approaches cover migrant students living in deprived areas in an integrated approach along with their native peers.

76. This is the approach used for the French *Priority Education Zones (ZEP)*: while resources are not explicitly targeted at migrant students, many of the concerned areas are inhabited mostly by migrants and their descendants. Schools are given educational priority status on the basis of socio-economic and educational disadvantage. *ZEP* areas receive additional teaching and non-teaching staff and additional funding, partly intended for the implementation of local initiatives (Franchi, 2004).

77. Two evaluative studies of the French *ZEP* reported discouraging results: attending a *ZEP* school had a stigmatising effect for students, parents and teachers; considerable numbers of middle class students were leaving these schools; there were large performance differences between different *ZEP*; and the policy had not led to improved education outcomes of students in these schools (Moisan and Simon, 1997; Bénabou *et al*., 2003). A common conclusion of both studies was the need to refocus funding on the areas and schools most in need. There were too many *ZEP* (800 *ZEP* across France enrolling 15-20% of all students) with each school receiving too little additional funding (Pugin, 2007). In response, the Ministry adopted reforms that, among other things, allow for more systematic screening and evaluation of schools so that they can more easily obtain or lose priority status (Field *et al.*, 2007).

78. Similarly, the British Excellence in Cities (EiC) programme targets support at all students living in disadvantaged urban areas but in fact, 60% of migrant students live in these areas and are covered by the funding (Kendall *et al*., 2005). Between 1999-06, EiC invested a total of GBP 1.7 billion to support disadvantaged schools in these areas of significant deprivation. The programme provides EiC "local partnerships" with additional resources for initiatives such as supporting the teaching and learning of the most able pupils; providing Learning Mentors to work with pupils to identify and address underlying issues which may undermine their progress; developing small school based units for pupils at risk of exclusion; designing City Learning Centres to enhance the whole curriculum using high quality ICT facilities. Recent evaluations show very good results. For example, the rate of increase in GCSE performance for EiC areas was shown to be around twice that of non-EiC areas between 2001 and 2005 (Kendall *et al*., 2005).

Targeting migrant students

79. While migrant students and native students of low socio-economic background may have similar education outcomes and share certain characteristics, the strategies needed to support the two groups are not necessarily the same. While both need additional funding, some countries highlight the need to implement funding strategies designed to meet the *specific* needs of migrant students.

80. In Switzerland, for example, the *Quality in Multi-Ethnic Schools (QUIMS)* programme focuses explicitly on ethnic and cultural diversity. It provides extra financial resources and professional support to schools with 40% or more students from migrant backgrounds. The funding is targeted for particular fields of school development in ethnically and culturally diverse schools. The fields include language instruction,

adaptation of assessments to the needs of linguistic and socio-cultural diversity, and an inclusive and non-discriminatory school ethos (Gomolla, 2006).

81. In the UK, funding from the *Ethnic Minority Achievement Grant (EMAG)* is allocated based on numbers of pupils from nationally underachieving minority ethnic groups and English language learners. The major objectives of the grant are to support whole-school change to narrow achievement gaps for underachieving minority ethnic pupils and to meet the costs of additional support to meet the specific needs of bilingual learners (DFES, 2004).

82. A recent report by Tikly *et al*. (2005) offers a critical analysis of the grant. The results in terms of achievement are mixed. While Pakistani, Bangladeshi and Black Caribbean students remain the most at risk of underachieving, the rates of improvement were greater for Pakistani and Bangladeshi students than for other groups. This indicates that the achievement gap is narrowing for these groups. While the report identifies a number of weaknesses of the grant, it highlights the following factors of success. First, the aims of *EMAG* have shifted from a mere focus on language support to a more explicit focus on underachievement. Second, the new funding formula is clear and transparent, and explicitly targets particular underachieving ethnic and language groups. Third, the role of local authorities has been enhanced to provide a broad range of support strategies.

Ensuring efficient management of resources

83. Having determined the exact target groups and levels of funding that each group should receive, the second step is to identify what level of the education system is best suited to manage the funds. While allocation to intermediate authorities may be helpful to reduce regional spending disparities, schools may be best placed to decide on the most urgent local funding priorities. Country experience suggests that approaches where intermediate authorities work together with schools to support efficient use of additional funding may work well.

Equalising regional disparities

84. In many OECD countries, immigration is a regional phenomenon, with large proportions of migrant students clustered in certain, generally poorer, areas. To develop locally coherent initiatives and respond best to local conditions, some countries have adopted decentralised funding approaches, allocating resources for migrant education to intermediate authorities such as school districts, local authorities or municipalities. In Sweden, for example, the national government redistributes resources from wealthy to poorer municipalities through a grant (Ahlin and Mörk, 2005).

85. There is evidence that such additional resources allocated to disadvantaged localities have been effective in reducing regional spending disparities (Ahlin and Mörk, 2005). Yet, while such redistributive mechanisms can be an effective tool to balance disparities *between* regions, inequities *within* disadvantaged regions may remain, and some schools may not receive the share that corresponds to their relative needs.

86. In the United States, where districts are responsible for distributing *Title I* funds from the federal level among different schools, Roza *et al.* (2005) show that some districts underfund their most deprived schools, and that in some cases *Title I* funding is actually diverted into the more wealthy schools in the district. As inequitable district funding has been severely criticised in the United States, additional resources are now increasingly distributed from the states directly to schools.

87. It can be important to earmark funds allocated to intermediate authorities, to make sure that they are indeed used for migrant education, rather than for other local priorities. In Sweden, it was found that *targeted* grants given to municipalities had a positive and significant effect on school spending whereas

general (untargeted) grants had an insignificant or even negative impact (Ahlin and Mörk, 2005; Field *et al.*, 2007).

88. In the UK, local authorities are required to devolve the largest bulk of *EMAG* funding (85%) directly to schools in order to enable them to respond most effectively to their particular needs. Even the remaining 15% retained by local authorities are "ring-fenced" *i.e.* they must be spent on the particular purpose of improving the results of underachieving ethnic groups (Kendall *et al*., 2005). This mechanism ensures that local authorities with tight resources are not tempted to use the money on other priority areas (Tikly *et al*., 2005).

Providing autonomy and support to schools

89. Giving funding directly to schools can be a way to avoid biases in spending patterns of intermediate authorities and ensure that the money indeed reaches the schools with the highest proportions of migrant students. In several countries redistributive strategies have gone in line with an extension of school autonomy, an emphasis on new systems of quality management, and professional development opportunities provided to school staff.

90. In the UK, the allocation of extra resources through the *EMAG* is based on concrete targets to raise the achievements of particular underachieving ethnic minority groups. Schools are required to use ethnic monitoring, which allows collecting and analysing achievement data in relation to students' ethnic backgrounds. This is seen as an important instrument in identifying inequalities, introducing specific interventions and monitoring success (Gomolla, 2006).

91. In the US, *Title I* schools are provided data on the performance of their students, disaggregated by characteristics such as ethnicity, poverty, limited English proficiency, disability and migrant status. They are required to reach "adequate yearly progress" (AYP) as defined by external performance standards for all their students, depending on their particular background characteristics. If schools fail to reach AYP goals for two consecutive years, they are identified as in need of improvement and provided technical assistance to help them improve. If they fail to make progress for two years after being identified for improvement, they are subject to "corrective action" by districts, which may include replacing staff, introducing a new curriculum, decreased management authority, or restructuring (Kirby *et al*., 2003).

92. A 2003 evaluation of the *Title I* funding suggests, however, that the coordination between schools and district for educational improvement did not seem to work particularly well (Kirby *et al*., 2003). Almost half of the principals in schools identified by districts for improvement were not aware that their school was considered in need of improvement. Many of them did not know what the state considered to be adequate yearly progress. Moreover, only half of the schools in need of improvement had received additional technical assistance or professional development as required by the law.

93. When funding for migrant education is distributed to schools, it is important that further guidance or professional training is provided on how the resources can be used effectively. Otherwise, school staff may not know how to fit new initiatives into their school development plans, or they may use the money on programmes that have not been demonstrated to be effective in improving migrant education (Karsten, 2006). In the US, data shows that 70% of *Title I* schools used the additional funding for pullout programmes that remove struggling students from class, even though legislation had required schools to minimise such programmes (Kirby *et al*., 2003). In fact, research has shown that there is little educational benefit in such programmes as they require students to miss parts of the normal curriculum and are often taught by less qualified teachers (Karsten, 2006).

94. Intermediate authorities can provide vital support to schools in using additional resources effectively. In the UK, Tikly *et al*. (2005) show that additional funding for ethnic minority students was more likely to impact on student achievement when the local authorities provided active support in the management and coordination of additional funds. The local authorities that were successful in raising migrant student achievement often provided good practice guidelines and advisory services for schools. They also tended to offer professional development opportunities to train school managers and governors in the use of EMAG, disseminate good practice in addressing the needs of ethnic minority students, and have provisions to monitor progress in migrant education.

95. In Switzerland, the QUIMS strategy aims to provide attractive incentives and professional support for participating teachers and schools, and highlights the importance of cooperation between schools and the local administration. Participating schools are provided with structured schemes for school improvement and additional support from the local administration, including advisory services, professional development, materials, handbooks, local networks and evaluations (Gomolla, 2006).

96. One possible downside of funding schools directly rather than local authorities is that funding may be spread too thinly across many different schools. The amount of funding may be too small to introduce new programmes or the extra funding may add little to existing projects (Karsten, 2006; Leuven, 2003).

Targeting students / families

97. Little evidence was found of any budgetary strategies where education authorities funded individual migrant students or their parents directly. Karsten (2006) discusses the possibility of "portable entitlements" where each child from a low-income group would have a personal account that parents can use to fund expenditure on their child. This money could for example be used to pay for private educational support after school.

98. Some countries offer children from low-income families means-tested assistance with meeting the costs of school-related services such as transport, meals, materials, extracurricular activities and health services (Spain, France, Ireland, Luxembourg, Netherlands, Portugal, UK). In addition, some countries exempt low-income families from some financial contributions (France, Luxembourg) and others provide subsidies to cover school fees and other expenses (Netherlands). However, these subsidies are available to migrant students along the same means-tested criteria as other students. Migrant students are generally not given more favourable treatment by virtue of their migrant status. What funding is available for migrant students specifically tends to be reserved for asylum seekers (Eurydice, 2004).

99. In some OECD countries, private foundations play an important role in supporting talented and gifted migrant students financially. There is a tradition in the United States of scholarships to ethnic minority students to promote high performance and transition to higher levels of education. In some European countries, foundations have recently become more active in this field.[3] While the involvement of private foundations may contribute to the improvement of migrant education, the evaluation of such strategies is beyond the scope of this paper.

3. In Germany, for example, the private START foundation has launched a scholarship programme in 2002 to support talented migrant students aged 14 to 18 from modest socio-economic backgrounds. The scholars receive a computer, IT materials and financial support, as well as access to networks and seminars. They are expected to provide evidence of their progress and to be engaged in local groups (www.start-stiftung.de)

Prioritising between different levels of education

100. While the question of priorities is often avoided, education ministries are sometimes confronted with competing demands for funding from different levels of the education system. This section will look at the priority sectors for migrant education.

101. There is powerful evidence that investments in the education of migrant children have the highest rate of return when focused at the earliest levels of education (Cunha *et al*., 2005). A consistent body of research has shown that learning is a dynamic process where all achievements build on foundations that are laid down at earlier ages (Cunha *et al*., 2005; Heckman, 2006a; 2006b). If gaps emerge in children's cognitive, linguistic and social abilities at an early age, these gaps will be difficult to overcome later on. Cost-benefit analyses have shown that investment in early childhood education and care (ECEC) is relatively more effective and less costly than remedial programmes later on in the lifecycle (see for example Cunha *et al*., 2005; Heckman, 2006a; 2006b).

102. Gaps in children's cognitive development have been shown to be strongly associated with family background factors, like socio-economic status, maternal education and recent immigration (Heckman, 2006). An early start in education is thus of particular importance for migrant children from low socio-economic backgrounds, as their parents may have relatively low levels of financial and human capital to invest in the cognitive and linguistic stimulation of their children (Mistry *et al*., 2008; Yeung *et al*., 2002).

103. There is strong evidence that participation in ECEC programmes can be highly beneficial for migrant children's cognitive and linguistic development. In the US, model programmes with experimental design have shown that participation in high quality ECEC programmes has significant positive effects on disadvantaged children in terms of their later educational success, criminal behaviour and income (Barnett, 1995, Leseman, 2002; Biedinger and Becker, 2006). International research from a wide range of countries corroborates these findings (*e.g.* Thorpe *et al*., 2004; McCain and Mustard, 1999; Jarousse *et al*., 1992; Spiess *et al*., 2003).

104. While migrant students are most likely to benefit from ECEC, in some countries they are less likely than their native peers to be enrolled (OECD, 2006a). When fees are charged, the participation in ECEC has been shown to be highly dependent on family income, which puts migrant students from lower socio-economic backgrounds at a disadvantage (Chiswick and Deb-Burman, 2004). On the other hand, migrant parents may also be more hesitant than native parents to enrol their children in pre-school (Leseman, 2002). Active policies reaching out to migrant parents and supporting family needs are therefore relevant.

105. Policies in most OECD countries have focused on expanding migrant children's *access* to ECEC programmes, and most of them offer ECEC free of charge to disadvantaged students. At the same time, it is crucial to invest in the *quality* of ECEC services, as low quality ECEC may in fact increase developmental risks (Leseman, 2002). Especially for children under three, childcare is often private and unregulated, which may lead to high variations in staff training, pedagogical programming and child-staff ratios (OECD, 2006a). Evaluative studies from the US find that high quality programmes are in general intensive, early starting, centre-based and combined with strong parent involvement, parent education, home activities and family support (Leseman, 2002) (see also Section 3.3).

106. While investing in better access to and quality of ECEC programmes will yield the highest rates of return, investments in the subsequent levels of education are also clearly beneficial for migrant students' educational achievements. Research has shown that the benefits gained from ECEC programmes may "fade out" over time if they are not continuously nurtured (Barnett, 1995) – this is especially true for disadvantaged children who are at higher risk to attend low quality primary and secondary schools (Lee

and Loeb, 1995). The benefits gained at early age need to be sustained through follow-up programmes and continued high quality learning experiences (Heckman, 2006).

107. Beyond ECEC, compulsory education (roughly primary and lower secondary education) should be the first priority to improve migrant students' education outcomes. By definition, the compulsory level enrols all students including all disadvantaged and migrant students, whereas in most non-compulsory levels of education migrant students are underrepresented. As the OECD study on equity (Field *et al.*, 2007) has pointed out, spending on tertiary education will rarely be an equity priority, as low income and migrant students are much less likely to benefit from such expenses. Field *et al.* (2007) suggest that those countries that offer free tertiary education while charging fees for ECEC should revise their policies.

2.3 Recruiting and retaining effective teachers for migrant education

108. Teachers are arguably the most important resource input shaping student learning outcomes. Research has shown that teaching quality is one of the most important school-level factors influencing student outcomes, regardless of student socio-economic and demographic background factors (OECD, 2005a). Quantitative studies, mostly from the US, show that measurable proxies for teacher quality such as the degree of teacher preparation and the length of teaching experience are correlated with student achievement (Darling-Hammond, 2000).

109. Yet, while migrant and disadvantaged students stand to benefit the most from high quality teaching, they are often the least likely to receive it (Field *et al.*, 2007). Research has shown that teacher preferences may direct the more qualified and more experienced teachers to schools enrolling mostly native students (Hanushek *et al.*, 2001; Bénabou, 2003; Karsten *et al*., 2006). In France, for example, the share of young inexperienced teachers and the rates of teacher turnover are much higher in the educational priority zones (ZEP) than on national average (Bénabou, 2003). In the US, the highest-poverty *Title I* schools face greater challenges than other schools in terms of higher teacher attrition and teacher inexperience (Kirby *et al*., 2003).

110. If migrant students are to succeed in education, their schools must be able to recruit high quality teachers who are effective in the classroom and who stay on the job for several years. The following sections will discuss three policy options that might help improve teaching in schools with high proportions of migrant students: (1) hiring more teachers so that every student receives more individualised pedagogical support, (2) increasing teacher pay to attract and retain high quality teachers, (3) increasing the share of migrant and ethnic minority teachers, who might be more willing and capable in educating migrant students.

Teacher quantity and class size

111. Hiring additional teachers in schools with high proportions of migrant students is an often cited policy measure to provide more responsive schooling for migrants. Higher teacher density allows schools to create smaller classes, which in turn enables teachers to provide more individualised support and keep track of each student's specific needs. Moreover, class size reductions are likely to improve the classroom climate, reducing the number of disruptions and the level of noise, and allowing more time for each student to participate and become engaged (Santiago, 2005).

112. The impact of class size reductions on student outcomes is one of the most thoroughly researched topics in education. There has been some controversy in the research with some studies finding that class size reductions have a positive effect on student achievement (Glass *et al*., 1982; Krueger, 2000; 2003) and others not finding any such effect (Tomlinson, 1988; Hanushek, 1997). Much of the disagreement is due to the fact that it is difficult to quantify the effect of class size reductions because disadvantaged students are

generally more likely to be placed in smaller classes. But if extra weight is given to studies with experimental design (Finn and Achilles, 1990; Krueger, 1999), it can be concluded that class size reductions have a small positive effect on education outcomes.

113. While the impact of smaller classes on mainstream students seems to be modest, a substantive body of literature from a wide range of countries has shown that class size reductions do have a large and significant effect on disadvantaged students, including migrant, ethnic minority and low-income children from low-educated parents (Robinson and Wittebols, 1986; Krueger, 1999; Angrist & Lavy, 1999; Lindahl, 2001; Björklund *et al*., 2005; Andersson, 2007). Moreover, these studies also show that the effect is greatest for younger individuals in earlier grades, particularly kindergarten to third grade. There is consensus in the literature that additional teacher resources would be optimally allocated if they were targeted at those who benefit the most from smaller classes, *i.e.* disadvantaged students in kindergarten and primary schools (Hanushek, 2000; Krueger, 2000).

114. While the effects of smaller classes on disadvantaged students in early grades seem to be positive, they are relatively small in comparison to the effects of teacher quality differences (Rivkin *et al*., 2000). As substantial reductions in class size require hiring large numbers of additional teachers, special attention must be paid to maintaining high teacher quality standards. Otherwise, the effect of smaller classes could be undermined by hiring teachers who are not well prepared to work with migrant students (Field *et al.*, 2007).

Paying teachers more

115. Some governments have provided additional funding to teachers in "challenging" schools in the form of higher salaries or better working conditions. Such funding schemes are intended to reduce teacher turnover rates and attract high quality teachers to schools serving low-SES, migrant and ethnic minority students. In the French priority education zones (ZEP), for example, attempts are being made to attract high quality teachers via special additional payments (Pugin, 2007).

116. However, there is some evidence that salary increases would have to be very substantial to have an impact on teacher turnover in these schools. An evaluation of the French ZEP concludes that subsidies distributed to teaching staff working in challenging schools have not been effective in reducing the very high teacher turnover rates (Bénabou, 2003). In the US, Hanushek *et al*. (1999; 2001) show that teacher turnover is more associated with student characteristics, especially ethnic background, than with salary levels. Therefore, schools serving a high proportion of academically disadvantaged black or Hispanic students may have to pay an additional 20, 30, or even 50 percent more in salary than schools with academically well-prepared white or Asian student bodies. This would mean investing much more than any of the incentives currently in place.

117. Little research has explored the impact of such special payments for teachers on the actual performance of migrant students. In one of the few available studies, Leuven *et al*. (2003) evaluate a Dutch policy where schools with at least 70% ethnic minority students were allocated extra funding to improve teacher working conditions through financial bonuses or compensation for housing or travelling cost. They find that the effects of this policy on 8th graders achievement are positive but too imprecise to be significantly different from zero. They conclude that the policy is very unlikely to be cost-effective. A possible explanation for these disappointing results is that the programme did not provide teachers with any incentives to improve student achievement.

118. Some countries have introduced performance-related pay structures for teachers working in schools enrolling high proportions of migrant or ethnic minority students. Ladd (1999, in Karsten, 2006) evaluated a team pay scheme in Dallas where he finds that pass rates increased and drop-out rates

decreased compared to other cities. The most positive results were found for Hispanic and white students, but no effect was found on black students. Also in the US, Eberts *et al* (2002, in Karsten, 2006) studied individual merit pay and found that drop-out rates of low-achievers decreased in schools using performance-related pay but no other output factors improved.

119. Overall, there is some evidence that higher salaries for teachers in challenging schools may contribute to raising teachers' satisfaction and attracting high quality teachers to these schools. But the evidence also indicates that such salary increases would need to be quite substantial to make a difference in teacher turnover rates.

Hiring teachers with migration backgrounds

120. In many OECD countries there is a growing disparity between an increasingly diverse student population and a largely homogeneous teacher workforce. To make the teaching workforce more representative of the student population, some countries have implemented initiatives to hire more teachers from ethnic minority or migrant backgrounds.

121. In England and Wales, for example, the Teacher Training Agency (TTA) has introduced measures to attract more visible ethnic minority entrants to the profession. These measures have included targeted advertising, mentoring schemes, taster courses, training bursaries, and the setting of recruitment targets for initial teacher training institutions (Carrington and Skelton, 2003).

122. Such policies are often based on the assumption that the presence of teachers with migrant or ethnic minority backgrounds can positively influence migrant or ethnic minority students' education outcomes. It is argued that teachers of the same ethnic or racial background may serve as effective role models, enhancing the self-confidence and motivation of migrant students, and ultimately leading to improved education outcomes (Clewell and Villegas, 1998; Carrington and Skelton, 2003).

123. While such teacher role model effects are widely believed to exist, little empirical research has been conducted to explore the effect of teachers' ethnic or migrant background on student outcomes. Moreover, what evidence is available mostly comes from the United States and deals with the particular situation of African American and Hispanic students whose families may have lived in the US for many generations. The results may not be easily transferable to other countries or to the situation of first- and second-generation migrants.

124. The conclusions of this body of research are mixed. Using data from Texas, Lopez (1995) finds that ethnic minority teachers were able to maximise gains in student achievement in classrooms where their ethnicity was dominant among the student population. But in a study based on a nationally representative survey, Ehrenberg *et al*. (1995) find little association between student achievement and the racial match between teachers and students in the US. Dee (2004) uses performance data from Tennessee's Project STAR where students and teachers were randomly matched within participating schools. The results show that assignment to an own-race teacher does significantly increase the math and reading achievement of both black and white students. In Sweden, Lindahl (2007) also finds that ethnic minority students obtain better scores in national math exams when the share of ethnic minority teachers increases. But no such effects are found in Swedish and English.

125. In addition to these studies looking only at student performance outcomes, other research has explored the ways in which the match between teachers' and students' demographic backgrounds impacts on teacher-student interactions. The results of this body of research show that there may be unintended biases in teacher behaviour when dealing with students from other demographic backgrounds. A consistent body of evidence from the US shows that teachers tend to have more positive perceptions and higher

expectations of students who share their demographic backgrounds (Beady and Hansell, 1981; Ehrenberg *et al*., 1995; Quiocho and Rios, 2000; Dee, 2005). There is also some tentative evidence that teachers may have more positive interactions with students of the same origin (Casteel, 1989). Same race teachers may also be more likely to encourage students to pursue higher education: in the US, Hess and Leal (1997) show that the share of minority students who enrol in college in urban school districts is positively correlated with the share of minority teachers in these districts.

126. In summary, while the available evidence is limited, it is generally supportive of the assumption that increasing the share of minority / migrant teachers may have a positive influence on migrant students' learning experience and education outcomes.

127. However, having a migrant or ethnic minority background is neither necessary nor sufficient to teach migrant students successfully. Other research has identified a wide range of important characteristics of effective teachers that are unrelated to their demographic backgrounds (Santiago, 2005). Therefore, concerns about teachers' origin should not override other important considerations in recruitment decisions. Alternative policies that improve the effectiveness and intercultural awareness of all teachers, such as improved teacher training to deal with diverse student populations, may be a relatively attractive way to improve migrant students' education outcomes.

3. SCHOOL-LEVEL POLICIES

128. The previous section discussed policies concerning the structure and inputs of education systems. The present section is concerned with the processes taking place in individual schools. It deals with policies aiming to change school and classroom characteristics in order to take migrant students' needs into account. Section 3.1 addresses policies to support the language learning of students who speak a different language at home, while Section 3.2 addresses strategies aimed more broadly at taking into account the diverse student backgrounds in schools and classrooms. Finally, Section 3.3 deals with policies that go beyond the school-level to reach out to parents and communities and have an impact on those background characteristics that play a role in students' motivation and performance at school.

3.1 Language learning

129. Proficiency in the language of instruction is a fundamental determinant of successful education outcomes. Language skills are essential for most learning processes such as listening, reading, writing and interaction with teachers and peers.

130. Migrant students who do not master the language of instruction are at a significant disadvantage in schools. Cross-country data from PISA show that migrant students who do not speak the language of instruction at home are roughly one year of learning behind their native peers. At the same time, those migrant students who do speak the language of instruction at home are about half a year behind. This means that there is about *half a grade level difference* between migrants who do and do not speak the language of instruction at home (Christensen and Stanat, 2007). Regression analyses based on PIRLS, TIMMS and PISA also show that speaking a foreign language at home significantly decreases pupils' achievements in both primary and secondary schools (Schnepf, 2004).

131. Measures to improve the language proficiency of migrant students are therefore a priority in education policies across OECD countries. But countries vary greatly in the methods and programmes adopted to reach this aim. Research in this field provides some guidance on the strategies that are likely to be successful in supporting migrant students' language as well as content learning.

An early start in language learning improves school readiness

132. As discussed earlier in this report, educational support for migrant students is most important and effective in early childhood. This is also true for language support. Many second-generation children grow up in families that are relatively isolated linguistically. Despite having spent all their childhood within the country, they may have limited proficiency in the language of instruction when they start primary school (AERA, 2004; Knapp, 2006). Providing early language assistance to these children is an important part of improving their school readiness and allowing them to start on an equal footing with their peers.

133. Language training can begin in very early childhood and care programmes. Research has shown that phonological awareness – being able to listen to language and to hear rhymes and syllables in words – is an important determinant of later reading and writing ability (Leong and Joshi, 1997). The phonological awareness necessary for school success can be effectively developed through specific training programmes at the pre-school level (for a meta-analysis, see Ehri *et al*., 2001). Some studies in Germany have analysed the impact of phonological awareness training on both native and migrant children (who speak a different

language at home), showing that it produces equally positive results for both groups (Gräsel *et al*., 2004; Penner, 2005).

134. Building on early phonological awareness training, migrant children should receive special language and literacy support before entering primary school. Research in the US has shown that children can acquire the basic language skills necessary for reading and writing quite quickly when they are taught a systematic curriculum from early on. For example, the *Success for All* programme in the US combines group instruction and individual tutoring at the pre-school and primary school level. A study in Philadelphia showed that children from low-income Asian families who began *Success for All* in kindergarten were reading nearly at grade level by the end of first grade (Slavin and Yampolski, 1992). However, OECD (2006) reveals that very few countries provide systematic language support based on explicit curricula in pre-primary education.

135. Careful observation and monitoring of each child's language development is an important precondition to provide appropriate and systematic support. Information gathered on the language skills of pre-school children should be used to provide targeted support. In Germany, for example, several Länder have introduced screening processes to identify pre-school children in need of additional language support (Bertschi-Kaufmann *et al*., 2006) and to distribute additional funding to primary schools accordingly (Mengering, 2005).

136. But even if migrant children have learned basic communication and literacy skills early on, they are still at a greater risk of failure in school than their peers. Research indicates that while it takes children approximately two years to develop "communicative" language skills, it can take up to seven years for students to become proficient in the "academic" language used in school environments (Cummins, 1979). Systematic and ongoing language support is therefore necessary at all levels of education.

Integrating language and content learning

137. The issue of language learning is especially salient for newcomer school-age children. In some countries these children are immediately placed into the mainstream classroom and receive additional language support, whereas in others they are placed in special preparatory classes before transferring to mainstream education (OECD, 2006b).

138. Preparatory language classes may work well to provide students with basic linguistic skills, but the separation of migrant students from the mainstream should be short and transitory in nature. Field *et al.* (2007) reveal that in Norway 20% of migrant students never leave the special language training class and in Switzerland most migrant children are still not deemed capable of integrating into mainstream classes after two years in special beginners' classes. According to Field *et al.* (2007), extra funding for such separate classes may sometimes be counterproductive and encourage schools to retain pupils in these classes for too long.

139. While second language students need targeted and continued language support, there is little evidence that this support can be effectively offered in "pull-out programmes" that are not closely integrated with the curriculum (AERA, 2004). Pull-out programmes where migrant students are withdrawn from mainstream classes to receive special language support has been common practice in some countries in the past (UK, US, Netherlands). But research has revealed many disadvantages of this approach: it produces hardly any additional teaching time, it requires students to miss parts of the normal curriculum, it may have a stigmatising effect, it is often taught by less qualified teachers, and there may be little coordination between the language teacher and the classroom teacher (Loewenberg and Wass, 1997; Karsten, 2006).

140. There is little empirical research on the specific features of successful second language support programmes. But by comparing different country approaches, Christensen and Stanat (2007) have identified a number of characteristics that seem to contribute to successful language learning. First, the more successful countries provide systematic high standards and requirements for their second language courses and the course programmes are based on centrally developed curriculum documents.[4] Second, the teachers providing language support are specifically trained in second language acquisition and thus bring the essential capacities necessary to provide high quality instruction. Third, these programmes are time-intensive and offered in a continuous way throughout primary and secondary schools.

141. Research has also shown that it is neither necessary nor desirable to postpone academic teaching until students fully master the language of instruction (Watts-Taffe and Truscott, 2000). Language development and cognitive development are interconnected and language learning seems to work best when learners use language for meaningful purposes (Au, 1998). It is therefore essential to ensure that language classes are closely connected to the mainstream curriculum. One way to integrate language and academic learning is to develop content-area curricula for second language learning, as in some areas in the US (Harklau, 1994). Another important measure is to ensure close cooperation between language teachers and classroom teachers, an approach that is widely used in countries that seem most successful in educating migrant students such as Australia, Canada and Sweden (Christensen and Stanat, 2007).

142. Language learning can and should also take place in the mainstream classroom. In England, separate centres for English as an Additional Language (EAL) were terminated in the late 1980s because they had been found to produce racially discriminating outcomes (Leung, 2004). The focus is now on placing English language learners in age-appropriate mainstream classes as soon as possible. All teachers are expected to provide EAL development opportunities through special curriculum activities. In addition, EAL specialist teachers provide advice and guidance to subject teachers on how to include English language learning opportunities in content lessons and provide collaborative support in classes with EAL students (Leung, 2004).

143. Additional support can also be provided by the educational administration. In their evaluation of *Aiming High: The African Caribbean Achievement Project*, Tikly *et al*. (2006) report that the local authorities most successful in educating migrant students had provided good practice guidelines on language support to all teachers and offered a range of different staff development strategies in this area.

Valuing the mother language

144. There has been some controversy about the role of the mother language in the education of migrant students. Traditionally, the research on language learning has been dominated by the "interdependence hypothesis" (Cummins, 1979) suggesting that it is necessary for children to have a good command of their mother language in order to be able to become proficient in the language of instruction.

145. There is no clear consensus in the research literature to support or reject this hypothesis. Hundreds of small-scale studies on the impact of mother language education are available, especially from the US and Canada. Most of the available studies focus on transitional bilingual education, which means teaching non-English-speaking students to read and write in their native tongue, teaching them content in their native tongue and gradually transitioning them to English over a period of several years (Rossell and Baer, 1996). Different reviews and meta-analyses of these studies have reached sharply conflicting conclusions. A number of literature reviews concluded that most methodologically acceptable studies

4. In Sweden for example, the subject "Swedish as a second language" (SSL) has a curriculum parallel to mainstream Swedish lessons and the qualification acquired in SSL can be part of the exams necessary for entering higher education (Axelsson, 2005).

found bilingual education to be no more effective than English-only programmes (Baker & DeKanter, 1982; Rossell and Baker, 1996). But several meta-analyses concluded to the contrary that bilingual education led to better educational outcomes than English-only instruction (Willig, 1985; Greene, 1997; Slavin and Cheung, 2005). Differences in findings are mainly due to disagreement over what types of studies are considered "scientific enough" to be included in the review.

146. While it is not clearly proven that mastering one's mother language is a prerequisite for proficiency in a second language, countries may want to support mother language education as an important goal in itself. Valuing migrant students' mother language can be an essential component of intercultural education, ensuring that migrant children feel that their cultural and language background is appreciated as much as that of the majority (Brind *et al*., 2007). It has been argued that learning the mother language is an important step towards integration because it helps children bridge the gap between their home and school. The mother language teacher could even play the role of a cultural intermediary between families and the school (Driessen, 2005).

147. Today, only few OECD countries pursue a bilingual approach. In the US, policies in the 1960s and 70s favoured programmes where children were taught to some extent in their mother language and then transferred gradually to instruction in the national language, but since the 1990s such policies are less widespread (Slavin and Cheung, 2005). In the Netherlands, mother language teaching was actually abolished in 2004 (Driessen, 2005). In many other countries, whether bilingual education is provided or not generally depends on decisions made at the municipality or school level (OECD, 2006b). Only in Sweden do students have a legal right to native language instruction and schools have to provide such classes if at least five students with the same language live in the municipality.

148. The limited use of bilingual approaches in migrant education may also be due to practical and logistical obstacles: providing mother tongue education to all migrant students can be very costly and difficult to implement, especially when many different language groups are present in the country. It can be difficult to find a sufficient number of qualified teachers and to provide high quality guidelines and materials connecting mother language instruction to the mainstream curriculum. It may also be difficult to provide mother language education when the language spoken at children's home is a dialect or an informal spoken language.[5]

149. Christensen and Stanat (2007) conclude from the conflicting evidence base that "neither monolingual nor bilingual approaches to language support need to be fundamental tenets of policy". Indeed, many different arrangements using the native language to differing degrees can be successful in helping migrant students achieve in education, such as hiring a bilingual classroom assistant, offering selective subjects in the mother language, or proposing the mother language as part of foreign language learning in the official curriculum. Instead of using an all-or-nothing approach to mother language education, countries may provide for a mix of various organisational programmes for instruction in one, two or more languages.

150. If countries decide to provide second language support only, it is all the more important that second language instruction is provided early, connected to the mainstream curriculum and meets high standards of quality, as discussed in the previous sections.

5. In the Netherlands, for example, all Moroccan children used to be taught Standard-Arabic which is in fact very different from their actual home language, which would be Moroccan-Arabic dialects or Berber varieties. As a result, these students were in fact obliged to learn two languages that were foreign to them, Standard-Arabic and Dutch. Not surprisingly, evaluative studies showed that their command of Moroccan Arabic was limited and that their Standard Arabic was very poor (Driessen, 2005).

3.2 Intercultural education

151. In almost all OECD countries, there is recognition that schools should implement measures to recognise the increasing cultural diversity of their students. Policies and practices that take into account the ethnic and cultural differences between students are broadly referred to as "intercultural" or "multicultural" education (Eldering, 1996). While these terms are used differently across OECD countries, there is broad agreement in the literature that for intercultural education to be successfully implemented institutional changes must be made, including changes in the curriculum and teaching materials; the expectations, attitudes and behaviours of teachers and the goals and culture of the school (Banks, 1993).

Valuing diversity in curricula and teaching materials

152. The study and correction of bias in curricula and textbooks is one of the earliest and most predominant aspects of intercultural education. Monocultural curricula and course content may create or reinforce feelings of isolation and exclusion when migrant groups are marginalised or presented negatively or inaccurately (Tikly *et al*., 2006). Many countries have made efforts to rethink and transform traditionally monocultural curricula, textbooks and teaching materials to include perspectives, examples and information from a variety of cultures and groups (Bennett, 2001).

153. A number of countries have investigated the degree to which school textbooks or teaching materials take account of the perspective of migrant students who might be using them (Bennett, 2001). In Italy, for example, comprehensive analyses of textbooks were conducted in 1993 and 1999 (Falteri, 1993; 1999). The first analysis revealed that while elementary textbooks often contained images of other cultures, these images lacked explanatory text or even titles. In textbooks for younger children the representation of other cultures often placed them on an inferior level to Western culture. Later analyses showed some progress in the depiction of foreign cultures, but extra-European immigration was mostly treated as "a major problem facing Italy" (Chaloff, 1999).

154. Beyond the inclusion of intercultural aspects in national textbooks and curricula, there have been some evaluations of the degree to which the curriculum is developed and adapted *at the local level* to include relevant intercultural perspectives. These studies show that the widespread rhetoric about intercultural education has only partly been translated into practice.

155. In the Netherlands, while intercultural education has been part of national policy, a 2002 evaluation showed that only 20% of schools had integrated intercultural education in their curricula (Hermans, 2002). Another evaluative study also stresses the need for governments to ensure that intercultural education is actually implemented at the school level (Driessen, 2000).

156. A Danish evaluation cited in Eurydice (2004) further reports that there is great variation between schools in the extent to which their practice reflects a cross curricular international dimension. The report recommends that guidelines should be developed at the national level and cooperation between municipalities and schools in this field should be enhanced.

157. In the UK, an evaluation of the *Aiming High: African Caribbean Achievement Project* in 30 case study schools (Tikly *et al*., 2006) reveals that a significant number of African Caribbean students are struck by their invisibility in the curriculum and exasperated by the white European focus of instruction. At the same time, the evaluation also notes that all 30 case study schools had made some progress on African Caribbean inclusion in the curriculum over the duration of the project, as many heads of Math and English were rewriting schemes of work and developing the curriculum.

158. While there seems to be agreement across OECD countries on the importance of integrating intercultural perspectives into the curriculum, hardly any empirical research is available on the impact of

curriculum and textbook changes on student learning. Due to the uneven implementation of initiatives and the lack of scholarly research on the relationship between curriculum reform and migrant student outcomes, such measures are sometimes perceived as having failed to produce results (Bennett, 2001).

Changing teacher expectations

159. Course content and teaching materials are only a small part of students' experience at school. Intercultural education is also mediated through the "hidden curriculum" expressed in teacher expectations and attitudes for student learning (Bennett, 2001).

160. A consistent body of literature shows that low teacher expectations can have a devastating effect on student motivation and performance. In fact, experimental research has revealed that erroneous teacher expectations may become self-fulfilling prophecies, *i.e.* they may lead students to perform at levels consistent with those expectations (see for example Rosenthal and Jacobson, 1968; Brophy & Good, 1974; Rosenthal & Rubin, 1978). Brind *et al*. (2008) describe this as a "cycle of low expectations, low aspirations and low attainment". In a recent review of the last 35 years of empirical research on teacher expectations, Jussim and Harber (2005) conclude that self-fulfilling prophecies clearly exist and are most important for students from stigmatised social groups, such as migrant students.

161. There is evidence that teacher expectations are formed partially on the basis of race, ethnicity and social class (Heckmann, 2005), which may lead to unintended and unacknowledged biases in teacher behaviour. A consistent body of research indicates that teachers are likely to have lower expectations and less positive evaluations of students who do not share their ethnic / racial characteristics. In the US, a range of studies has shown that teachers' race and ethnicity impacted on their perceptions of minority students, *e.g.* whether they expected their students to be successful in college (Beady and Hansell, 1981), whether they believed the student worked hard, whether they would recommend the student for honours (Ehrenberg *et al*., 1995) and whether they perceived the student as being disruptive, inattentive or rarely completing homework (Dee, 2005). In the UK, a recent survey has shown that an overwhelming majority of both high and low achieving African Caribbean pupils were aware of lower academic expectations that some teachers had of them (Tikly *et al*., 2006).

162. In a literature review covering this topic, Schofield (2006) suggests that the negative effect of low teacher expectations on migrant students can be reduced by promoting awareness of differential teacher behaviour and by providing strategies for behaviour change. But little evidence can be found on specific teacher training programmes helping teachers to develop more positive expectations towards all their students.

163. In one of the few available experimental studies, Kerman (1979) provides evidence on a successful initiative developed in the US almost three decades ago. The *Teacher Expectation Student Achievement* (TESA) programme enrolled teachers in five-week workshop-based courses using peer observation and feedback, demonstrations and role-playing activities. The programme emphasised the importance of both challenging low-achieving students and increasing positive interactions with them. Teachers were provided with information about their interaction with diverse students and allowed them to discuss and practice more effective behaviours. A three-year evaluative study of 2000 low-achieving students taught by participating teachers indicated that they had improved academically and had fewer discipline problems than their control classroom peers.

Training teachers for intercultural education

164. Teaching students from a wide range of different cultural and linguistic backgrounds with different experiences and socio-economic backgrounds takes a complex set of skills that many teachers

may not have through formal training. The provision of teacher training needs to be updated and adapted, so that teachers can mobilise the knowledge and skills necessary to provide effective instruction for all students. One of the skills that seems to be particular important for teachers to achieve greater equity in diverse classrooms is formative assessment, i.e. frequent, interactive assessments of student progress and understanding of individual learning needs to adjust teaching (OECD, 2005b).

165. Most OECD countries now have requirements for teacher training institutes to include topics associated with intercultural education in initial teacher training (Eurydice, 2004). However, institutions for initial teacher education are at least partially free to determine their own curriculum and generally they are not provided with any clear instructions as to how they should implement intercultural training.

166. Case study evidence from a range of countries shows that the official guidelines on intercultural teacher education are not always easily implemented (Norberg, 2000; Hermans, 2002; Garreta Bochaca, 2006). In Catalonia, a recent survey reveals that the overwhelming majority of Catalonian teachers had received no initial training on cultural diversity (Garreta Bochaca, 2006). A Swedish evaluation of teacher education in the early 90s showed that intercultural education was marginalised in teacher education and that a monocultural approach was prevailing despite official guidelines to provide an intercultural perspective (Batelaan *et al*., 1992 in Norberg, 2000). A later report from Sweden indicates that where intercultural courses exist, they are generally voluntary (Norberg, 2000). Case studies from the Netherlands further illustrate that while intercultural education plays an important role in policy documents and curricula, the topic is not receiving high priority in teacher education (Hermans, 2002). In all three countries, surveyed students of teacher training institutes expressed the view that intercultural education should receive more attention in courses and field experiences.

167. In-service training can be another way of helping teachers develop the skills necessary to take their students' diversity into account. However, teachers in most countries have no obligation to undertake professional development related to intercultural education. Previous OECD studies recommend the introduction of a minimum requirement for teachers to undertake professional development in this domain, linking participation to promotion or recertification (OECD, 2005a; Field *et al.*, 2007)

168. In a few countries, national guidelines are beginning to point to the importance of ongoing professional development in intercultural education. In Finland, for example, the teacher training programme established in 2001 prescribes that training related to linguistic minorities and immigrants is a priority area for teacher professional development, and in Portugal, legislation on teacher qualifications specifies skills related to intercultural education that teachers should acquire through lifelong learning (Eurydice, 2004).

169. In the UK, a whole-school professional development programme[6] introduced by the Department for Children, Schools and Families (DCSF) to raise the confidence and expertise of primary teachers to support their bilingual students has produced promising results. Qualitative case study evidence shows that the confidence of teachers and teaching assistants had been enhanced, and that the effect of the pilot activity had encouraged bilingual students to have higher expectations of themselves, to be more confident, to ask more questions and be more focused (White *et al*., 2006). The statistical evaluation using multilevel modelling finds that over the duration of the pilot (2004-2006), Key Stage 2 results in English had improved more for programme schools than for similar non-programme schools (Benton and White, 2007). In 2006, the pilot became a national strategy programme and schools were provided with professional development materials to share best practice between schools.

6. "*Raising the Achievement of Bilingual Learners in Primary Schools"*

170. Further research is needed to study the types of teacher training most likely to be successful in raising the achievement of migrant students. To consolidate and develop the evidence in this field, the OECD Centre for Educational Research and Innovation (CERI) is currently conducting an activity on Teacher Training for Diversity.[7]

3.3 Parental involvement in schools

171. The close relationship between family background and student outcomes is well-established. Students' interaction with their parents is one of the mechanisms through which this relationship operates. Parents may not only provide direct support in terms of after-school tutoring, learning materials and homework supervision, but through their interactions with their children they also communicate certain values and expectations about education that students are likely to internalise. In some countries, programmes to strengthen the links between school and home are now high on education policy agendas. In the United States, for example, schools receiving federal *Title 1* funding are required to spend part of the money on parent participation programmes.

172. The impact of parental involvement is a well-researched field. Literature reviews and meta-analyses of empirical studies confirm that parental involvement in education is associated with improved student outcomes (Jeynes 2005, 2007; Fan and Chen, 2001; Desforges and Abouchaar, 2003; Schofield, 2006). This effect seems to work in two main forms: parental involvement at home, including discussion about school, homework supervision and reading with children; and parental involvement at school, including contact with teachers, attendance of events and volunteering at school activities. Moreover, the evidence shows that the various forms of parental involvement are beneficial for student achievement regardless of background factors such as immigrant status or ethnicity (Desforges and Abouchaar, 2003; Schofield, 2006, Jeynes, 2007).

173. However, while parental involvement matters for all children, immigrant parents, especially those with lower SES, seem to be less involved than native-born parents (Turney and Kao, 2006). While migrant parents often have high aspirations for their children, they may face multiple barriers to involvement in school, such as language difficulties, weak knowledge in school subjects or lack of time and/or money to invest in their children's education. They may also feel alienated and unwelcome in a foreign school environment (Desforges and Abouchaar, 2003). The child might also play an important mediating role in promoting or discouraging their parents' involvement (Edwards and Alldred, 2000).

174. These findings have important implications for policy. Initiatives to boost parental involvement need to address the complex set of factors likely to inhibit parental support in migrant families. Schools need to find ways of communication that appeal to parents with different levels of education, language skills and understanding of the school system. They need to build parents' capacity in supporting their children while at the same time training teachers to interact with parents effectively.

Bringing education into homes

175. Home visiting programmes are one of the most commonly used approaches to foster parental involvement in their children's education. Such programmes send facilitators into the homes of "at-risk" families to improve children's education by working together with parents. This approach is widely used at the pre-school level. A literature review by Gomby (2005) reveals the following advantages of home visiting programmes: they can serve socially or geographically isolated families, they can be tailored to the specific needs of individual families and they can have positive outcomes on siblings.

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7. For more information see: www.oecd.org/document/2/0,3343,en_2649_35845581_40507138_1_1_1_1,00.html

176. A particular home visiting initiative, the Home Instruction Program for Preschool Youngsters (HIPPY) has been widely implemented in many OECD countries including Israel, USA, Turkey, Chile, Germany, Mexico, the Netherlands, Australia and New Zealand (BarHava-Monteith *et al*., 1999). The programme aims to increase parents' awareness of their possibilities and capacities as home educators. It is targeted specifically at disadvantaged families, including low-income, migrant and ethnic minority families. It involves fortnightly visits by tutors from the same community who teach parents how to facilitate their children's learning using structured workbook activities. The programme has been repeatedly evaluated and the evaluation results from different countries show significant performance advantages in the cognitive ability of participating versus control group children (Lombard, 1994; Alder, 1995; Burgon, 1997).

177. In a review of evaluations of six US-based pre-school home visiting programmes, Gomby (2005) reveals some features of successful initiatives. First, programmes offering home visiting services in combination with ECEC programmes produce more long-lasting results than those that offer home visiting services alone. Second, the intensity of services matters. If the visits are limited or infrequent, it may be difficult to establish close relationships and to bring about behaviour changes. Third, the success of the programme depends on the relationship between the home visitor and the parent. Paraprofessionals with similar demographic backgrounds as the community being served may be able to establish higher levels of trust and understanding with the families. To ensure quality of the visits, the visitors need pre-service and ongoing training and should be paid and supported adequately so that turnover rates are minimised.

Schools reaching out to parents

178. As an alternative or in addition to home visiting programmes, schools may encourage parents to become engaged in school-based activities. One example is the INSPIRE project conducted in Birmingham (UK) where the local authority provided training, materials and funding to schools to prepare them to work alongside parents. The approach taken in this project was to target one class per school where each child would bring a 'special' adult from home or from the community to work together with them and the teacher on activities related to the math curriculum and to collaborative work. Over 40 000 parents become involved every year, including those who have been hard to engage such as ethnic minority parents (Brind *et al*., 2008). The impact has been assessed through self reports by participants. Staff and parents reported a 70% increase in educational activity at home and 60% of teachers reported increased achievement among involved students (Desforges and Abouchaar, 2003).

179. In some countries, schools have appointed special professionals to ensure effective liaison between schools and homes. In London (UK), for example, the School Home Liaison Project was initiated in 1995 by the London Diocesan Board for Schools to promote partnerships between schools and parents. Liaison activities include support for raising achievement, communication with families, improvement of social provision and access to medical care. Parent groups such as community language classes, parenting skill sessions or toy library services may also be established. An evaluation report shows that the project has led to better communication between families and schools, more parents coming forward to seek help and support, an improvement in parents' understanding of school issues and better teacher understanding of family situations (Hallam and Castle, 1999). According to the report, one of the success factors was the clearly defined role of the project workers. The project workers were accountable to individual schools but trained and supervised by the Project; thus they were seen by parents and pupils as both part of the school and as "different" and therefore more easily approachable.

180. Further research indicates that parental involvement programmes are most effective when targeted in specific subject areas. In a review of family influence on literacy learning in the US, Sheldon and Epstein (2005a) find that 22 out of 23 targeted reading programmes that taught parents to become involved with their children in reading and language activities produced significant gains in student

performance in these areas. Many of the students participating in the studies were from ethnic minority or immigrant groups. Using longitudinal data from elementary and secondary schools, Sheldon and Epstein (2005b) also show that effective implementation of practices that encouraged families to support their children's mathematics learning was associated with higher mathematics test scores.

181. While there are clear indications of positive outcomes of parental involvement programmes, some researchers have deplored the lack of scientific rigour in programme evaluations (Desforges and Abouchaar, 2003; Mattingly *et al*., 2002). For example, Mattingly *et al* (2002) analyse the research design, data, and analytical techniques used in the programme evaluations of 41 parental involvement programmes and report serious design, methodological and analytical flaws inherent in most of the studies. They do not conclude that the programmes are ineffective, but that the available evidence is not sufficient to scientifically prove their impact on student achievement, or to analyse which types of programmes are more effective than others.

182. While more experimental research is needed to study the degree to which different types of parental involvement programmes enhance student outcomes, there is a wealth of evidence showing that parental involvement matters for migrant students' education outcomes. Well-focused efforts to remove the abovementioned barriers that inhibit migrant parents' involvement are therefore likely to be successful in narrowing the achievement gap.

REFERENCES

AERA (2004), "English Language Learners: Boosting Academic Achievement", AERA Research Points, Vol. 2, No. 1, pp. 1-4.

Ahlin, A. and E. Mörk (2005), "Effects of Decentralization on School Resources", *Working Paper 2005:5*, Institute for Labour Market Policy Evaluation (IFAU), Uppsala.

Alder, C. (1995), "Research on the Home Instruction Program for Preschool Youngsters", Paper presented at the *Second Research Seminar of HIPPY International*, 29-31 May 1995, Jerusalem, Israel.

Ammermüller, A. (2005), "Educational Opportunities and the Role of Institutions", Centre for European Economic Research (ZEW), Mannheim & Research Centre for Education and the Labour Market, Faculty of Economics and Business Administration, Maastricht University.

Andersson, C. (2007), "Teacher Density and Student Achievement in Swedish Compulsory Schools", *Working Paper 2007:4*, Institute for Labour Market Policy Evaluation (IFAU), Uppsala.

André-Bechely, L. (2007), "Finding Space and Managing Distance: Public School Choice in an Urban California District", *Urban Studies*, Vol. 44, No. 7, p. 1355–1376.

Angrist, Joshua, and Victor Lavy, 1999, "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement", *The Quarterly Journal of Economics*, Vol. 114, No. 2, pp. 533-575.

Arnett, S. M. (2007), "Influences of National Education Policies on the Academic Achievement of High- and Low-Social Status Students", paper presented at the *European Forum - Assessing the Quality of Education and Its Relationship with Inequality in European and the Modern Societies*, Florence.

Au, K.H. (1998), "Social Constructivism and the School Literacy Learning of Students of Diverse Backgrounds", *Journal of Literacy Research*, Vol. 30, pp. 297–319.

Axelsson, M. (2005), "Mother Tongue Teaching and Programs for Bilingual Children in Sweden", in Söhn, J. (ed.), *The Effectiveness of Bilingual School Programs for Immigrant Children,* Programme on Intercultural Conflicts and Societal Integration (AKI)*,* Social Science Research Center Berlin (WZB), Berlin.

Baker, K. and A. DeKanter (1981), "The Effectiveness of Bilingual Education Programs: A Review of the Literature." Final Draft Report, U.S. Department of Education, Washington, DC.

Banks, J.A. (1993), "Multicultural Education: Historical Development, Dimensions, and Practice", *Review of Research in Education*, Vol. 19, pp. 3-49.

BarHava-Monteith, G., N. Harré and J. Field, (1999), "Hippy New Zealand: An Evaluation Overview", *New Zealand Journal of Social Policy*, Vol. 12, pp. 106-121

Barnett, S.W. (1995), "Long-term Effects of Early Childhood Programs on Cognitive and School Outcomes", *The Future of Children*, Vol. 5, No. 3, pp. 25-50.

Batelaan, P., J. Gundara, G. Markou and T. Piipo (1992), "Interculturalism in Swedish Teacher Education: Evaluation of the Teacher Education Reform", *UHAG -rapport*, 1992: 18.

Beady, C.H. and S. Hansell (1981), "Teacher Race and Expectations for Student Achievement", *American Educational Research Journal*, Vol. 18, No. 2, pp. 191-206.

Bénabou, R. F. Kramarz and C. Prost (2003), "Zones d'Education Prioritaire: Quels Moyens Pour Quels Résultats? Une Evaluation sur la Période 1982 – 1992", INSEE – 200318, available at www.insee.fr/fr/ffc/docs_ffc/es380a.pdf

Bennett, C. (2001), "Genres of Research in Multicultural Education", *Review of Educational Research*, Vol. 71, No. 2, pp. 171-217.

Benton, T. and K. White (2007), "Raising the Achievement of Bilingual Learners in Primary Schools: Statistical Analysis", Research Report No. DCSF-RR006, National Foundation for Educational Research, Department for Children, Schools and Families, Nottingham.

Bertschi-Kaufmann, A., M. Gyger, U. Käser, H. Schneider and J. Weiss (2006), "Sprachförderung von Migrationskindern im Kindergarten", Literaturstudie erstellt im Auftrag des Departements Bildung, Kultur und Sport des Kantons Aargau, Switzerland.

Biedinger, N. and B. Becker (2006), "Der Einfluss des Vorschulbesuchs auf die Entwicklung und den Langfristigen Bildungserfolg von Kindern: Ein Überblick über Internationale Studien im Vorschulbereich", *Arbeitspapiere – Working Papers Nr. 97, 2006*, Mannheimer Zentrum für Europäische Sozialforschung, Mannheim.

Björklund A, P-A. Edin, P. Fredriksson, Krueger, A. (2004), "Education, Equality and Efficiency – An Analysis of Swedish School Reforms during the 1990s", *IFAU report 2004: 1*, Institute For Labour Market Policy Evaluations, Uppsala.

Björklund A, M. Clark, P-A. Edin, P. Fredriksson & A. Kreuger (2005): *The Market Comes to Education in Sweden: An Evaluation of Sweden's Surprising School Reforms*, Russell Sage Foundation.

Bloem, N.S. and R. Diaz (2007), "White Flight: Integration through Segregation in Danish Metropolitan Public Schools", Humanity in Action, Team Denmark.

Brind, T., C. Harper, K.Moore (2008), *Education for Migrant, Minority and Marginalised Children in Europe*, a report commissioned by the Open Society Institute's Education Support Programme.

Brophy, J. E. and T.L. Good (1974), *Teacher-Student Relationships: Causes and Consequences*, Holt, Rinehart, and Winston, Inc, New York, NY.

Brunello, G., M. Gianni, and K. Ariga (2004), "The Optimal Timing of School Tracking", *IZA Discussion Paper No. 995*, Institute for the Study of Labour (IZA), Bonn.

Burgon, J. (1997) *Appendix F: The HIPPY programme in family service centres. Final report Family service centres evaluation,* Department of Social Welfare Wellington.

Burris, C.C., J.P. Heubert and H.M. Levin (2006), "Accelerating Mathematics Achievement Using Heterogeneous Grouping", American Educational Research Journal, Vol. 43, No. 1, pp. 105-136.

Carrington, B. and C. Skelton (2003), "Re-thinking 'Role Models': Equal Opportunities in Teacher Recruitment in England and Wales", *Journal of Education Policy*, Vol. 18, No. 3, pp. 253-265.

Casteel, C.R. (1989), "Teacher-Student Interactions and Race in Integrated Classrooms", *Journal of Educational Research*, Vol. 92, pp. 115-120.

Chaloff, J. (1999), "Current Research into Education for Immigrants in Italy", paper presented at the *Fourth International Metropolis Conference*, Washington, DC, December 9, 1999, CHIP – Child Immigration Project, Fondazione Censis, Rome

Chiswick, B.R. and Deb-Burman, N. (2004), "Pre-School Enrollment: An Analysis by Immigrant Generation", *IZA Discussion Paper No. 1226*, available at http://ssrn.com/abstract=571721

Christensen, G. and P. Stanat (2007), "Language Policies and Practices for Helping Immigrants and Second-Generation Students Succeed", The Transatlantic Taskforce on Immigration and Integration, Migration Policy Institute (MPI) and Bertelsmann Stiftung.

Clewell, B.C. and A.M. Villegas (1998), "Diversifying the Teaching Force to Improve Urban Schools: Meeting the Challenge. Introduction", Education and Urban Society, Vol. 31, No. 1, pp. 3-17.

Cummins, J. (1979), "Linguistic Interdependence and the Educational Development of Bilingual Children", *Review of Educational Research*, Vol. 49, No. 2, pp. 222-251.

Cunha, F., J. Heckman, L. Lochner and D. Masterov (2005), "Interpreting the Evidence on Life Cycle Skill Formation", *Working Paper 11331*, National Bureau of Economic Research, Cambridge, MA:

Darling-Hammond (2000), "Teacher Quality and Student Achievement: A Review of State Policy and Evidence", *Education Policy Analysis Archives*, Vol. 8, No. 1, http://epaa.asu.edu/epaa/v8n1

Dee, T.S. (2004), "Teachers, Race, and Student Achievement in a Randomized Experiment", *The Review of Economics and Statistics*, Vol. 86, No. 1, pp. 195–210.

Dee, T. S. (2005), "A Teacher like Me: Does Race, Ethnicity or Gender matter?", *American Economic Review*, Vol. 95, No. 2, pp. 158-165.

Desforges, C. and A. Abouchaar (2003), "The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievements and Adjustment: A Literature Review", Research Report No. 433, Department for Education and Skills, London, available at www.dfes.gov.uk/research/data/uploadfiles/RR433.pdf

DFES (2004), "Aiming High: Supporting Effective Use of EMAG", *DfES/0283/2004*, Department for Education and Skills, London.

Donovan, M.S. and C. Cross (eds.) (2002), *Minority Students in Special and Gifted Education*, National Research Council, National Academies Press, Washington, D.C.

Driessen, G. (2000), "The Limits of Educational Policy and Practice? The Case of Ethnic Minorities in The Netherlands", *Comparative Education*, Vol. 36, No. 1, pp. 55-72.

Driessen, G. (2005), "From Cure to Curse: The Rise and Fall of Bilingual Education Programs in the Netherlands" in Söhn, J. (ed.), *The Effectiveness of Bilingual School Programs for Immigrant Children,* Programme on Intercultural Conflicts and Societal Integration (AKI), Social Science Research Center Berlin (WZB), Berlin.

Eberts, R., K. Hollenbeck and J. Stone (2000), "Teacher Performance Incentives and Student Outcomes", *Journal of Human Resources*, Vol. 37, No. 4, pp. 913–927.

Edwards, R. and P. Alldred (2000), "A Typology of Parental Involvement in Education Centring on Children and Young People: Negotiating Familiarisation, Institutionalisation and Individualisation", *British Journal of Sociology of Education*, Vol. 21, No. 3, pp. 435-455.

Ehrenberg, R.G., D.D. Goldhaber, D.J. Brewer (1995), "Do Teachers' Race, Gender, and Ethnicity Matter? Evidence from the National Educational Longitudinal Study of 1988" *Industrial and Labor Relations Review*, Vol. 48, No. 3, pp. 547-561 .

Ehri, L.C., S.R. Nunes, D.M. Willows, B. Valeska Schuster, Z. Yaghoub-Zadeh and T. Shanahan (2001), "Phonemic Awareness Instruction Helps Children Learn to Read: Evidence from the National Reading Panel's Meta Analysis", *Reading Research Quarterly,* Vol. 36 No. 3, pp. 250-287.

Eldering, L. (1996), "Multiculturalism and Multicultural Education in an International Perspective", *Anthropology and Education Quarterly*, Vol. 27, No. 3, pp. 315-330.

Entorf, H. and M. Lauk (2006), "Peer Effects, Social Multipliers and Migration at School: An International Comparison", *HWWI Research Paper*, Hamburg Institute of International Economics, Hamburg.

Eurydice (2004), *Integrating Immigrant Children into Schools in Europe*, European Commission, Brussels.

Falteri, P. (1993), "Interculturalismo e immagine del mondo non occidentale nei libri di testo della scuola dell'obbligo", *I Quaderni di Eurydice*, No. 8.

Falteri P. (1999), "Osservazioni sulle Modalità Con Cui Vengono Presentati l'Immigrazione e gli Immigrati nei Libri di Testo Della Scuola Elementare, in *Primo Rapporto sull'Integrazione Degli Immigrati in Italia*, Dep. Affari Sociali, Roma, pp. 197-205.

Fan, X. and M. Chen (2001), "Parental Involvement and Students' Academic Achievement: A Meta-Analysis", *Educational Psychology Review,* Vol. 13, No. 1, pp. 1-22.

Field, S., M. Kuczera and B. Pont (2007), *No More Failures: Ten Steps to Equity in Education*, OECD, Paris.

Finn, J.D and C.M. Achilles (1990), "Answers and Questions about Class Size: A Statewide Experiment", *American Educational Research Journal,* 27, pp. 557-77.

Franchi, V. (2004), "Analytical Report on Education", National Focal Point for France, Agence pour le Développement des Relations Interculturelles (ADRI) / Agency for the Development of Intercultural Relations, Paris.

Garreta Bochaca, J. (2006), "Ethnic Minorities and the Spanish and Catalan Educational Systems: From Exclusion to Intercultural Education", *International Journal of Intercultural Relations*, Vol. 30, No. 2, pp. 261-279.

Glass, G.V., L.S. Cahen, M.S. Smith and N.N. Filby (1982), *School Class Size: Research and Policy*, Sage, Beverly Hills, CA.

Godwin, R.K., S.M. Leland, A.D. Baxter, S. Southworth (2006), "Sinking Swann: Public School Choice and the Resegregation of Charlotte's Public Schools", Review of Policy Research, Vol. 23, No. 5, p. 983-997.

Gomby, D. (2005), "Home Visitation in 2005: Outcomes for Children and Parents", *Invest in Kids Working Paper No. 7*, Committee for Economic Development, Invest in Kids Working Group, Washington, D.C., available at www.ced.org/docs/report/report_ivk_gomby_2005.pdf

Gomolla, M. (2006), "Tackling Underachievement of Learners from Ethnic Minorities: A Comparison of Recent Policies of School Improvement in Germany, England and Switzerland", *Current Issues in Comparative Education*, Vol. 9, No. 1, Teachers College, Columbia University, New York.

Gräsel, C., N. Gutenberg, T. Pietzsch, E. Schmidt (2004), "Zwischenbericht zum Forschungsprojekt Hören – Lauschen – Lernen: Umsetzung und Evaluation des Würzburger Trainingsprogramms zur Vorbereitung auf den Erwerb der Schriftsprache", Universität des Saarlandes, Saarbrücken.

Greene, J.P. (1997), "A Meta-Analysis of the Rossell and Baker Review of Bilingual Education Research", *Bilingual Research Journal*, Vol. 21, No. 2 and 3.

Hallam, S. and F. Castle (1999), *Evaluation of a School-Home Liaison Project - London Diocesan Board for Schools*, Institute of Education, University of London, London.

Hanushek, E.A. (1997), "Assessing the Effects of School Resources on Student Performance: An Update", *Educational Evaluation and Policy Analysis,* Vol. 19, No. 2, pp. 141-64

Hanushek, E.A., J.F. Kain and S.G. Rivkin (1999), "Do Higher Salaries Buy Better Teachers?", *Working Paper No 7082*, National Bureau of Economic Research, Cambridge, MA.

Hanushek, E.A. (2000) "Evidence, Politics, and the Class Size Debate, in The Class Size Policy Debate", *Working Paper 121*, Economic Policy Institute, Washington D.C.

Hanushek, E.A., J.F. Kain, S.G. Rivkin (2001), "Why Public Schools Loose Teachers", *Working Paper 8599,* NBER Working Paper Series*,* www.nber.org/papers/w8599

Hanushek, E.A. and L. Wössmann (2006), "Does Educational Tracking Affect Performance and Inequality? Differences-In-Differences Evidence across Countries", *Working Paper No. 11124*, National Bureau of Economic Research, Cambridge, MA.

Harklau, L. (1994), "ESL versus Mainstream Classes: Contrasting L2 Learning Environments", *TESOL Quarterly*, Vol. 28, No. 2, pp. 241-272

Hastings, J., T. Kane and D. Staiger (2005), "Parental Preferences and School Competition: Evidence from a Public School Choice Program", *Working Paper No. 11805*, National Bureau of Economic Research, Cambridge, MA.

Heckman, J. (2006a), "Investing in Disadvantaged Young Children is an Economically Efficient Policy", paper presented at the Committee for Economic Development, Pew Charitable Trusts, New York, NY, available at www.ced.org/docs/report/report_2006prek_heckman.pdf

Heckman, J. (2006b), "Skill Formation and the Economics of Investing in Disadvantaged Children", *Science*, Vol. 312, pp. 1900-1902.

Heckmann, F. (2008), *Education and the Integration of Migrants*, NESSE Analytical Report 1 for EU Commission DG Education and Culture, EFMS, Bamberg.

Hermans, P. (2002), "Intercultural Education in Two Teacher-training Courses in the North of the Netherlands", *Intercultural Education,* Vol. 13, No. 2, pp. 183-199.

Hess, F.M. and D.L. Leal (1997), "Minority Teachers, Minority Students, and College Matriculation: A New Look at the Role-Modeling Hypothesis", *Policy Studies Journal*, Vol. 25, No. 2, pp. 235-248

Hoxby, C.M (2001), "Ideal Vouchers", Harvard University typescript, available at http://www.hks.harvard.edu/inequality/Summer/Summer01/papers/Hoxby01.PDF

Hoxby, C.M. and G. Weingarth (2005), "Taking Race Out of the Equation: School Reassignment and the Strucutre of Peer Effects", available at http://www.hks.harvard.edu/inequality/Seminar/Papers/Hoxby06.pdf

Jarousse, J.P., A. Mingat and M. Richard (1992), "La Scolarisation Maternelle à Deux Ans: Effets Pédagogiques et Sociaux", *Éducation et Formation*, Ministère de l'Éducation Nationale et de la Culture, Paris.

Jeynes, W.H. (2005), "A Meta-Analysis of the Relation of Parental Involvement to Urban Elementary School Student Academic Achievement", *Urban Education*, Vol. 40, No. 3, pp. 237-269.

Jeynes, W.H. (2007), "The Relationship Between Parental Involvement and Urban Secondary School Student Academic Achievement: A Meta-Analysis", *Urban Education*, Vol. 42, No. 1, pp. 82-110.

Jussim, L., & Harber, K. D. (2005), "Teacher Expectations and Self-fulfilling Prophecies: Knowns and Unknowns, Resolved and Unresolved Controversies", *Personality and Social Psychology Review*, Vol. 9, No. 2, pp. 131-155.

Karsten, S. (1994), "Policy on Ethnic Segregation in a System of Choice: the Case of the Netherlands", *Journal of Education Policy*, Vol. 9, No. 3, p. 211 – 225.

Karsten, S. (2006), "Policies for Disadvantaged Children under Scrutiny: the Dutch Policy Compared With Policies in France, England, Flanders and the USA", *Comparative Education*, Vol. 42, No. 2, pp. 261–282.

Karsten, S., C. Felix, W. Meijness, J. Roeleveld and E. van Schooten (2006), Choosing Segregation or Integration? The Extent and Effects of Ethnic Segregation in Dutch Cities", Education and Urban Society, No. 38, pp. 228-247

Kendall, L., S. Golden, S. Machin, S. McNally, C. Meghir, M. Morris, P. Noden, L. O'Donnell, K. Ridley, S. Rutt, I. Schagen, S. Stoney and A. West (2005), "Excellence in Cities: The National Evaluation of a Policy to Raise Standards in Urban Schools 2000-2003", Department for Education and Skills, UK.

Kerman, S. (1979), "Teacher Expectations and Student Achievement", *Phi Delta Kappan*, Vol. 60, No. 6, pp. 716-718.

Kirby, S.N., J.S. McComba, S. Naftel, S.E. Murray (2003), "A Snapshot of Title I Schools, 2000-01", Department of Education, Washington, D.C.

Knapp, W. (2006), "Language and Learning Disadvantages of Learners with a Migrant Background in Germany", paper prepared for the Intergovernmental Conference *Languages of Schooling: Towards a Framework for Europe*, 16-18 October 2006, Council of Europe, Strasbourg.

Krueger, A (1999): "Experimental Estimates of Education Production Functions", *The Quarterly Journal of Economics*, Vol. 114, No. 2, pp. 497-532.

Krueger, A.B. (2000), "Understanding the Magnitude and Effect of Class Size on Student Achievement", The Class Size Policy Debate, Working Paper No. 121, Economic Policy Institute, Washington D.C.

Krueger, A (2003): "Economic Considerations and Class Size", *Economic Journal*, Vol. 113, No. 485, pp. F34-F63.

Ladd, H. F. (1999), "The Dallas School Accountability and Incentive Program: An Evaluation of Its Impact on Student Outcomes", *Economics of Education Review,* No. 18, pp. 1–16.

Lee, V.E. and S. Loeb (1995), "Where Do Head Start Attendees End Up? One Reason Why Preschool Effects Fade Out", *Educational Evaluation and Policy Analysis*, Vol. 17, No. 1, pp. 62-82.

Leong, C.K. and R.M. Joshi (1997), "Relating Phonologic and Orthographic Processing to Learning to Read and Spell, in Leong, C.K. and R.M. Joshi (Eds.), *Cross-language Studies of Learning to Read and Spell. Phonologic and Orthographic Processing*, Kluwer Academic Press, Dordrecht, pp. 1-29.

Leseman, P.P.M. (2002), "Early Childhood Education and Care for Children from Low-income or Minority Backgrounds", A Paper for Discussion at the OECD Oslo Workshop, June 6-7 2002, OECD, Paris.

Leung, C. (2004), "Integrating EAL Learners into the Mainstream Curriculum", *NALDIC Quarterly*, No. 2.1, pp. 3-10, NALDIC, Watford.

Leuven, E., M. Lindahl, H. Oosterbeek, D. Webbink (2003), "The Effect of Extra Funding For Disadvantaged Students on Achievement", SCHOLAR Working Paper Series, WP 39/03, Department of Economics, University of Amsterdam.

Levin, H.M. (1988), "Accelerated Schools for At-Risk Students", *Report No. 142*, Center for Policy Research in Education, Rutgers University, Brunswick, NJ.

Levin, H.M. (2005), "Accelerated Schools: A Decade of Evolution", in Fullan, M. (ed.), *Fundamental Change*, pp. 137-160/

Lindahl, M (2001): "Home versus School Learning: A New Approach to Estimating the Effect of Class Size on Achievement", *IZA Discussion papers no. 261*.

Lindahl, E. (2007), "Gender and Ethnic Interactions among Teachers and Students – Evidence from Sweden, *Working Paper 2007:25*, Institute for Labour Market Policy Evaluation (IFAU), Uppsala.

Loewenberg, M. and B. Wass (1997), "Provision for the Development of the Linguistic Proficiency of Young Immigrants in England and Wales and France: A Comparative Study", *Comparative Education,* Vol. 33, No. 3, pp. 395-410.

Lombard, A.D. (1994), *Success Begins at Home: The Past, Present and Future of the Home Instruction Program for Preschool Youngsters (2nd edition)*, Dushkin Publishing Group, Guilford, CN.

Lopez, O. S. (1996), "The Effect of the Relationship between Classroom Student Diversity and Teacher Capacity on Student Performance," ERIC Document, ED 386 423.

Lou, Y., P.C. Abrami, J.C. Spence, C. Poulsen, B. Chambers, S. Apollonia (1996), "Within-class Grouping: A Meta-Analysis", *Review of Educational Research*, Vol. 66, No. 4, pp. 423-458.

Mattingly, D.J., R. Prislin, T.L. McKenzie, J.L. Rodriguez and B. Kayzar (2002), "Evaluating Evaluations: The Case of Parent Involvement Programs", *Review of Educational Research*, Vol. 72, No. 4, pp. 549-576.

McCain, M.M. and J.M. Mustard (1999), *Reversing the Real Brain Drain: Early Years Study Final Report*, Government of Ontario, Toronto.

Meghir, C. and M. Palme (2005), "Educational Reform, Ability and Family Background", American Economic Review, Vol. 95, No. 1, p. 414-424.

Meier, V. and G. Schütz (2007), "The Economics of Tracking and Non-Tracking", *Ifo Working Paper No. 50*, Munich.

Mengering, F. (2005), "Bärenstark – Empirische Ergebnisse der Berliner Sprachstandserhebung an Kindern im Vorschulalter", Zeitschrift für Erziehungswissenschaft, Vol. 8, No. 2, pp. 241-262.

Mickelson, R.A., M. Bottia and S. Southworth (2008), "School Choice and Segregation by Race, Class, and Achievement", available at: http://epsl.asu.edu/epru/documents/EPSL-0803-260-EPRU.pdf

Mistry, R.S., J.C.Biesanz, N.Chien, C. Howes, A.D. Benner (2008), "Socioeconomic Status, Parental Investments, and the Cognitive and Behavioral Outcomes of Low-income Children from Immigrant and Native Households", *Early Childhood Research Quarterly*, Vol. 23, pp. 193-212.

Moisan, C. and Simon, J. (1997), "Les déterminants de la réussite éducative en ZEP", L'Inspection Générale de l'Education Nationale (IGEN), available at http://lesrapports.ladocumentationfrancaise.fr/BRP/984001171/0000.pdf

Norberg, K. (2000), "Intercultural Education and Teacher Education in Sweden", *Teaching and Teacher Education*, Vol. 16, pp. 511-519

Nordin, M. (2006), "Ethnic Segregation and Educational Attainment in Sweden", Department of Economics, Lund University, available at www.nek.lu.se/NEKMNO/Ethnic%20Segregation%20and%20educational%20Attainment%20in%20Sweden.pdf

Oakes, J., T. Omseth, R. Bell, P. Camp (1990), "Multiplying Inequalities: The Effects of Race, Social Class, and Tracking on Opportunities to Learn Mathematics and Science", *RAND*, Santa Monica, CA.

Oakes, J. (1995), "Two Cities' Tracking and Within-School Segregation", *Teachers College Record,* Vol. 96, No. 4, pp. 681-690.

OECD (2004), *Learning for Tomorrow's World: First Results from PISA 2003*, OECD, Paris.

OECD (2005a), *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, OECD, Paris.

OECD (2005b), *Formative Assessment: Improving Learning in Secondary Classrooms*, Centre for Educational Research and Innovation (CERI), OECD, Paris.

OECD (2006a), *Starting Strong II: Early Childhood Education and Care*, OECD, Paris.

OECD (2006b), *Where Immigrant Students Succeed: A Comparative Review of Performance and Engagement in PISA 2003*, OECD, Paris.

OECD (2007), *PISA 2006: Science Competencies for Tomorrow's World*, OECD, Paris.

OECD (2008), *OECD Economic Surveys: Germany*, OECD, Paris.

Pekkarinen, T., S. Pekkala, and R. Uusitalo (2006), "Education Policy and Intergenerational Income Mobility: Evidence from the Finnish Comprehensive School Reform", *IZA Discussion Paper No. 2204*.

Penner, Z. (2002), "Plädoyer für eine Präventive Frühintervention bei Kindern mit Spracherwerbsstörungen", in Von Suchodoletz, W. (ed.), *Therapie von Sprachentwicklungsstörungen. Anspruch und Realität*, Kohlhammer, Stuttgart.

Peterson, J.M. (1989), "Remediation Is No Remedy", *Educational Leadership*, Vol. 46, No. 6, pp. 24-25.

Prenzel, M., J. Baumert, W. Blum, R. Lehmann, D. Leutner, M. Neubrand, R. Pekrun, J. Rost and U. Schiefele (eds.) (2005), *PISA 2003: Ergebnisse des Zweiten Ländervergleichs Zusammenfassung*, PISA-Konsortium Deutschland.

Pugin, V. (2007), "La Politique d'Education Prioritaire: Bilans et Perspectives", *Millénaire*, Le Centre Ressources Perspectives du Grand Lyon, Lyon.

Quiocho, A. and Rios, F. (2000), "The Power of Their Presence: Minority Group Teachers and Schooling", *Review of Educational Research*, Vol. 70, No. 4, pp. 485-528.

Rangvid, B.S. (2007a), "School Composition Effects in Denmark: Quantile Regression Evidence from PISA 2000", *Empirical Economics*, Vol. 33, pp. 359–388.

Rangvid, B.S. (2007b), "School Choice, Universal Vouchers and Native Flight out of Local Public Schools", *Working Paper, May 2007:3*, AKF, Danish Institute of Governmental Research, Copenhagen.

Resh, N. (1998), "Track placement: How the 'Sorting Machine' Works in Israel. *American Journal of Education,* Vol. 106, No. 3, p. 416-438.

Rivkin, S.G., E.A. Hanushek and J.F. Kain (2000), "Teachers, Schools, and Academic Achievement", *Working Paper 6691 (revised)*, National Bureau of Economic Research, Massachusetts.

Robinson, Glen E. and James H. Wittebols (1986)*, Class Size Research: A Related Cluster Analysis for Decision-Making*, Education Research Service, Arlington, VA.

Rosenthal, R., and L. Jacobson, (1968), *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*, Holt, Rinehart, and Winston, New York, NY.

Rosenthal, R. and D.B. Rubin (1978), "Interpersonal Expectancy Effects: The First 345 Studies", *The Behavioral and Brain Sciences*, Vol. 3, pp. 377-415.

Rossell, C. and K. Baker (1996), "The Educational Effectiveness of Bilingual Education", *Research in the Teaching of English*, Vol. 30, No. 1, pp. 7-74.

Roza, M. with L. Miller and P.Hill (2005), "Strengthening Title I to Help High-Poverty Schools: How Title I Funds Fit Into District Allocation Patterns", Working Paper, Center on Reinventing Public Education, Seattle.

Santiago, P. (2002), "Teacher Demand and Supply: Improving Teaching Quality and Addressing Teacher Shortages", *OECD Education Working Papers*, No. 1, OECD, Paris.

Schneeweis, N. (2006), "How Should We Organize Schooling to Further Children with Migration Background?", *Working Paper No. 0620*, Department of Economics, Johannes Kepler University, Linz.

Schneider, M., P. Teske, and M. Marshall (2000), *Choosing Schools: Parents, School Choice, and the Quality of American Schools*, Princeton University Press, Princeton, NJ.

Schnepf, S.V. (2004), "How Different Are Immigrants? A Cross-Country and Cross-Survey Analysis of Educational Achievement", *IZA Discussion Paper No. 1398*, IZA, Bonn.

Schofield, J.W., in cooperation with K.Alexander, R. Bangs and B. Schauenburg, (2006), "Migration Background, Minority-Group Membership and Academic Achievement: Research Evidence from Social, Educational, and Developmental Psychology", *AKI Research Review 5*, Programme on Intercultural Conflicts and Societal Integration (AKI), Social Science Research Center, Berlin.

Schütz, G., H.W. Ursprung and L. Woessmann (2005), "Education Policy and the Equality of Opportunity", *IZA Discussion Paper No. 1906,* Institute for the Study of Labour (IZA), Bonn.

Slavin, R.E. (1987), "Ability Grouping and Student Achievement in Elementary Schools: A Best-Evidence Synthesis", *Review of Educational Research*, Vol. 57, No. 3, pp. 293-336.

Slavin, R. E. and Yampolski, R. (1992), "Success for All: Effects on Students with Limited English Proficiency: A Three-Year Evaluation", Center for Research on Effective Schooling for Disadvantaged Students, Baltimore, MD.

Slavin, R.E. and A. Cheung (2005), "Synthesis of Research on Language of Reading Instruction for English Language Learners", in Söhn, J. (ed.), *The Effectiveness of Bilingual School Programs for Immigrant Children,* Programme on Intercultural Conflicts and Societal Integration (AKI)*,* Social Science Research Center Berlin (WZB), Berlin.

Sheldon, S. B. and J.L. Epstein (2005a), "School Programs of Family and Community Involvement to Support Children's Reading and Literacy Development across the Grades" in J. Flood and P. Anders (eds.), *Literacy Development of Students in Urban Schools: Research and Policy,* pp. 107-138, International Reading Association, Newark, DE.

Sheldon, S. B. and J.L. Epstein (2005b), "Involvement Counts: Family and Community Partnerships and Mathematics Achievement", *The Journal of Educational Research*, Vol. 98, No. 4, pp. 196-207.

Spiess, C.K., F. Büchel and G.G. Wagner (2003), "Children's School Placement in Germany: Does Kindergarten Attendance Matter?", *Early Childhood Research Quarterly,* No. 18, pp. 255–270.

Spinath, B. (2005), "Accuracy of Teacher Judgments on Student Characteristics and the Construct of Diagnostic Competence", *German Journal of Educational Psychology*, Vol. 19, No. 1/2, p. 85-95.

Strand, S. (2007), "Minority Ethnic Pupils in the Longitudinal Study of Young People in England (LSYPE)", Centre for Educational Development Appraisal and Research, University of Warwick and Department for Children, Schools and Families, London.

Szulkin, R. and J.O. Jonsson, (2007), "Ethnic Segregation and Educational Outcomes in Swedish Comprehensive Schools", *Working Paper 2007:2*, ISSN 1654-1189, The Stockholm University Linnaeus Center for Integration Studies (SULCIS), Stockholm.

Thorpe, K., C. Tayler, R. Bridgestock, S. Grieshaber, P. Skoien, S. Danby and A. Petriwskyi (2004), "Preparing for School", Report of the Queensland Preparing for Schools Trials 2003/4, Department of Education and the Arts, Queensland Government, Australia.

Tikly, L., A. Osler and J. Hill (2005), "The Ethnic Minority Achievement Grant: A Critical Analysis", *Journal of Education Policy,* Vol. 20, No. 3, pp. 283-312.

Tikly, L., J. Haynes, C. Caballero, J. Hill and D. Gillborn (2006), *Evaluation of Aiming High: African Caribbean Achievement Project*, Department for Education and Skills, London, available at: www.standards.dfes.gov.uk/ethnicminorities/resources/ACAPevalrsrch reportoct06.pdf.

Tomlinson, T. (1988), *Class Size and Public Policy: Politics and Panaceas*, Office of Educational Research and Improvement, Department of Education, Washington, DC.

Turney, K. and G. Kao (2006), "Home and School Involvement of Minority Immigrant Parents of Young Children", Paper submitted for consideration for the 2006 Annual Meetings of the American Sociological Association.

Watts-Taffe, S. and D.M. Truscott (2000), "Using What We Know about Language and Literacy Development for ESL Students in the Mainstream Classroom", Language Arts, Vol. 77, No. 3, pp. 258-265.

White, K., K. Lewis, and F. Fletcher-Campbell (2006), "Raising the Achievement of Bilingual Learners in Primary Schools: Evaluation of the Pilot/Programme", DfES Research report No. 758, Department for Education and Skills, UK, available at www.dfes.gov.uk/research/data/uploadfiles/RR758.pdf

Willig, A.C. (1985), "A Meta-Analysis of Selected Studies on the Effectiveness of Bilingual Education", *Review of Educational Research*, Vol. 55, No. 3, pp. 269-317.

Yeung, W.J., M.R. Linver and J. Brooks-Gunn (2002), "How Money Matters for Young Children's Development: Parental Investment and Family Processes", *Child Development*, Vol. 73, pp. 1861-1879.

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