Contribute to reducing the achievement gap

The goal of this research review is to supply information of use to those working to improve educational outcomes for immigrant and minority students in order to close the achievement gap between them and non-immigrant majority students. Specifically, this report is designed to highlight work in psychology, especially the fields of social, developmental, and educational psychology that has particular importance for understanding the causes of the achievement gap between these groups and for developing strategies to reduce it.

Evidence from psychological research can advance our understanding

By focusing on research results not commonly discussed in the German context, this review aims to shed further light on factors responsible for the unequal educational outcomes of students with and without a migration background. Additionally, it aims to help further expand understanding of how some well-known determinants of educational achievement, such as socioeconomic status, exert their influence.

Three major topics

Based, first, on the strength of the existing research literature and, second, on their potential relevance to the German situation, three major topics were selected for review: stereotype threat, expectancy effects, and the effects of ability grouping. These three topics further serve to illuminate three areas of key importance for learning processes: the level of the individual student, of teachers and their interactions with students, and the institutional level, i.e. the structure of learning groups and the school system.

The research basis

This research review is based on high-quality empirical, often experimental, studies, mostly carried out in the USA, and on earlier research reviews. It is assumed that the evidence presented here is of general relevance. However, specifics of national context, prevailing stigmas, and the situation of the particular groups concerned are briefly discussed to aid in determining the extent to which the research reviewed applies to the German context.
Stereotype threat undermines academic performance

Negative stereotypes linking poor intellectual skills to group membership can substantially impair both short- and long-term performance in a variety of academic domains for immigrant and minority students. The threat (“stereotype threat”) of being judged and found wanting due to the existence of stereotypes related to one’s group identity strongly interferes with intellectual functioning in the short term (such as during testing). In addition, it can lead to reduced interest in academic accomplishment as well as to behaviors that undermine achievement in the long term.

Members of many different groups affected

Stereotype threat has a demonstrated impact on members of many different types of groups (women, the elderly, members of immigrant and minority groups) and on performance in widely varying domains. The empirical evidence presented here strongly suggests that children are aware of ethnic and gender stereotypes, and that many of the stereotype threat effects which undermine the academic achievement of older students generalize to children possibly as young as five years old. When or how strongly stereotype threat is experienced by individuals is related to factors such as their a) degree of identification with the academic field in question, b) awareness of stereotypes, and c) strength of identification with the stereotyped group.

How stereotype threat undermines academic success

Current research suggests three main mechanisms through which stereotype threat undermines academic performance: individuals may experience anxiety which leads to performance deficits, their confidence in their own ability may be damaged, and cognitive energies may be diverted to dealing with the threat. Furthermore, threatened individuals may engage in a number of behaviors that are academically counterproductive. For example, they may seek to avoid challenges or decide that success in a specific subject or in academics more generally is not important to them. Many of these behaviors, while protecting individuals’ positive sense of self in the short-term, may undermine long-term academic success.

Stereotype threat: what can be done

Strategies that may be employed to mitigate the impact of stereotype threat include the strengthening of positive non-stereotype threatened identities, providing academic mentoring and feedback in a manner that both emphasizes the teacher’s belief in the intellectual potential of the student and high standards, stimulating students to reflect on occasions when they have successfully lived up to their personal beliefs or values, and creating conditions in which immigrant students do not fear potential bias in the school environment. Other strategies available to educational institutions to lessen stereotype threat include cooperative learning programs, creating and highlighting school philosophies and practices that highlight the value of cultural diversity, building positive relations between native German and immigrant children, and employing well-qualified educators from immigrant backgrounds who can serve as strong role models for children from similar backgrounds.
Expectancy effects (self-fulfilling prophecies) can negatively affect academic achievement

There is a significant amount of evidence supporting the conclusion that the expectancies that teachers bring with them regarding students’ likely academic ability and achievement can impact students’ academic outcomes. Self-fulfilling prophecies do occur and one place in which they can be found is the classroom. Teachers’ beliefs about the capabilities of their students can, under some circumstances, significantly affect the quality of students’ current and even future academic achievement. The strength of these effects appears to vary substantially across different situations.

Students with immigrant or minority backgrounds or low socioeconomic status are particularly likely to be negatively affected

Teachers often have lower expectations for the academic performance of students from low socioeconomic status and/or immigrant and minority backgrounds. At the same time, students from such backgrounds appear to be particularly vulnerable to the effects of teacher expectancies, as do younger students and students in new environments. Therefore, expectancy effects seem likely to contribute to the achievement gap between more and less privileged students. In Germany, expectancy effects may have particularly serious consequences because children are directed into different secondary school tracks at a young age, when expectancy effects appear stronger than later.

Teachers’ expectations influence teachers’ and students’ behaviors

The main mechanism through which teachers’ expectancies impact students’ performance is the instructors’ behaviors. Lower expectations may lead to negative or otherwise unhelpful behaviors towards students on the part of instructors. In particular, the academic input teachers provide (e.g. whether they provide challenging material) and the socio-emotional climate they create in their interactions with students seem to have an impact on student achievement. Evidence suggests not only that students readily perceive differential behaviors associated with expectancies, but also that students’ awareness of these behaviors can create negative feelings about their own ability, the teacher, and the classroom setting in general, factors which in turn may negatively impact their learning.

Expectancy effects: what can be done

There is little evidence with regard to strategies that are effective in preventing the negative academic consequences of expectancy effects. At the moment, it seems most promising to aim at changing teacher behaviors – rather than attitudes – and for schools to find concrete ways to convey high expectations to all students regardless of their backgrounds. One potentially promising approach is to provide teachers with professional development activities designed to ensure that they act toward students from immigrant, minority and/or low SES backgrounds in ways likely to foster their achievement (e.g. providing challenging material, rephrasing questions or providing clues instead of quickly “giving up,” etc.), including creating a positive socioemotional climate in interacting with them.
Ability grouping with curricular differentiation can have detrimental effects on achievement

Considerable evidence exists that tracking and related kinds of ability grouping with curricular differentiation, such as Germany’s three-tiered system of secondary education, often contribute to the achievement gap between initially lower- and initially higher-achieving students by undermining the academic achievement of the former group. Because a disproportionate number of students from immigrant backgrounds are in the former group for various reasons, such forms of ability grouping are likely to increase the achievement gap between immigrants and others.

Learning contexts, teacher and peer behavior affect individual learning

One major factor that inhibits learning when low-achieving students are grouped together is that less challenging material is taught. Therefore, at least some of the students in lower-level educational environments learn less there than they would be likely to in more heterogeneous environments. Furthermore, teacher behaviors and classroom social processes in low-achieving tracks can undercut learning as well. Individual student’s achievement is also depressed by attending a school in which students’ average socioeconomic background is low compared to one in which it is higher. This effect, although sometimes considerable, appears to be weaker than the effect of peers’ average achievement level.

Ability grouping with curricular differentiation: what can be done

Limiting or abolishing learning environments populated primarily by low-achieving students through approaches such as creating more heterogeneous schools and classrooms is one solution to be seriously considered. However, it is not easy to implement and it may have unintended consequences, such as the ‘flight’ of middle- and upper-class families into private education. Nonetheless, given that the research reviewed suggests that the institutional structure of the German school system combined with the early assignment of children to different school tracks is clearly disadvantageous to a great many immigrant students, who disproportionately come from low SES backgrounds and/or are initially low achievers, de-tracking should be very carefully considered as one approach to closing the achievement gap between immigrant and other students. The aim should be to promote diversity with regard to initial ability and family background and to provide the support previously low-achieving students will need to meet the increased demands on them. Higher achieving students need not suffer from such changes if the reform is properly carried out.

Given the political difficulties of such de-tracking, another alternative to be considered is to find ways to raise the quality of curricular content and pedagogical practice in the learning environments in which immigrant and minority students are heavily represented and to implement them with careful attention to their impact on students and their long-term institutionalization.

The full report (in English as well as in German) can be downloaded in PDF format from: www.aki.wz-berlin.de.

Printed copies of the report can be ordered from:
Arbeitsstelle Interkulturelle Konflikte und gesellschaftliche Integration (AKI)
Social Science Research Center Berlin (WZB)
Reichpietschufer 50
D-10785 Berlin
E-Mail: aki@wz-berlin.de
Tel: +49 (0)30 25491352