

2. Importance of Family Background in Large-Scale Education Studies

Policymakers and researchers who invest in and carry out large-scale education studies seek to gain knowledge about core factors associated with differences in students' performance in school. One of the goals of international large-scale studies in education is to provide adequate measures of the background characteristics potentially influencing the outcomes of the education process and to analyze that influence across the countries and subunits of countries¹ participating in these studies.

Given that not all of a child's learning takes place in the classroom, the time a student spends outside school also has the potential to be relevant to his or her academic performance. For example, reading practice and comprehension is not limited to the classroom, as students are likely to encounter texts of various sorts throughout the day, such as advertisements and personal reading materials. Researchers trying to explain students' academic performance need to extend their focus beyond the school to a consideration of the activities students engage in outside of school (see, for example, Campbell, Kelly, Mullis, Martin, & Sainsbury, 2001, p. 21ff.).

A substantial amount of time outside school is shaped by the student's home, that is, the place where the student lives and which includes the people living there. In most cases, children grow up with their parents or guardians, who often influence their children's opinions and views of education as well as their opportunities to learn. In terms of education, the child's family needs to be included as a factor in such child-development processes. In general, parents' and the family's views, values, and morals are, to a great extent, passed on to the child, with that transmittal being a deliberate decision by the parents or an unconscious process. Taking into account this sociocultural reproduction process, which has been identified (Bourdieu, 1977; Bowles, 1977) and discussed in the research literature for some time, brings into play

¹ The participants in the international large-scale education studies considered in this paper include not only countries but sometimes also other geographical or political entities that are either subunits of countries or might not be recognized (yet) as sovereign countries by all countries in the world. In this paper, we use the term "country" for reasons of simplicity, with the term comprising all these kinds of geographical or political entities.

a factor that influences the outcome of a child's learning process and is additional to factors at the "core" of the education system, such as curriculum, teachers, classroom, and other school-based elements.

In turn, considering and extracting the effects of family background on student performance in school allows investigation of the influence of school factors on students' achievement "net of family background effects" (Buchmann, 2002, p. 151). Taking into account and controlling for the effect of family background leads to a better understanding of the effects that may be attributed solely to schooling and the formal learning process. Having a clear picture of what schools can and cannot influence has the potential to alter expectations of the outcomes of school reforms or policy programs. Policymakers obtain a better view of the extent of and the limits to which policies directed at the school can influence student performance. Essentially, good measures of family background are an important means of distinguishing the effects of family background from those of the formal education process.

For reasons of simplicity, we refer, in this paper, to "family background" as encompassing circumstances and living conditions grouped together in all kinds of combinations and where students are associated with adults, the latter being parents, guardians, or other adults related to the student. The "parents" do not necessarily need to be married or to live together. Single-parent arrangements and guardians are also included in these home-based living arrangements. We also, in this paper, see the family background of a student as including all those persons who are either in direct contact with that child or young person for a major part of his or her life or who, in some other way, permanently influence his or her living conditions (e.g., due to legal requirements or obligations).

As research over several decades has shown, family background itself is an important variable explaining variance in students' academic achievement. White, Reynolds, Thomas, & Gitzlaff (1993), with their meta-analysis of educational research conducted before 1980, and Sirin (2005), who reviewed similar research between 1990 and 2000, underlined the role family background has historically played in educational research. To this day, the concept of family background remains prominent, not only as a controlling variable but also as a research field of its own. For example, the international reports on PIRLS 2006 (Mullis, Martin, Kennedy, & Foy, 2007), PISA 2006 (OECD, 2007), and TIMSS 2007 (Mullis et al., 2008) dedicated either a complete chapter or at least half of a chapter to family background characteristics and their relationships with achievement.

Comparative analysis between and across countries is, not surprisingly, a feature of large-scale international studies of educational achievement. Countries or education systems participating in these studies are compared to one another with regard to their students' achievement. If countries differ in achievement outcomes, one of the reasons might be the differences in their social structure and in students' family backgrounds, and not (only or partly) because of differences in school-system structures and policies or curricula. Including family background as a potential source

of variation minimizes misinterpretation of research findings. This benefit provides an additional rationale for including family background—at least as a controlling variable—in international large-scale student assessments.

Measuring family background in a diverse set of countries with diverse cultural backgrounds, political systems, and social arrangements creates additional challenges. The measures need to be comparable across countries—that is, and most importantly, valid. For example, if income is used as an indicator of family wealth, how does the amount of money a family earns compare across countries? Clearly, simply using currency exchange rates is not sufficient because differences in the purchasing power of currencies are not taken into account. Also, the value of goods typically differs from country to country. In general, all measures of family background need to be closely examined with respect to their validity and comparability at the international level.

Finally, the question of how students' respective family backgrounds influence achievement tends to be seen not only as a highly important one but also as an issue of equality, debates on which have continued for decades. For example, the "achievement gap" discussion in the United States, initiated by the Coleman Report in the 1960s, continues to be, as noted earlier in this paper, a topic that attracts considerable attention (see Lee, 2002, p. 3f). The U.S.'s *No Child Left Behind* Act of 2001 and the ongoing discussions about it also indicate the relevancy of this topic.

All that we have said so far stresses the importance of measuring family background in international large-scale assessments in education. It is our aim, in this paper, to address these important issues and to provide answers to several questions, such as which of the practices used to measure family background yield, for use by researchers, the most adequate, reliable, and rich information. We also want, in this paper, to try to identify measures that have been proven to collect useful information and those that might be important but are missing from the literature on the international large-scale education studies discussed here. Finally, we want to provide suggestions on what can and could be done to improve the quality of measuring family background.