

# The effect of educational systems on differences in the performance of children of different backgrounds and on the improvement of their learning outcomes, with reference to Cyprus

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## Abstract

Socioeconomic inequalities in education are an important issue for both researchers and policymakers, since student achievement was found to be associated with students' socioeconomic status (SES). Consequently, educational effectiveness research attempts to investigate not only factors associated with student learning outcomes (i.e., the quality dimension of effectiveness), but also whether effective schools can reduce the initial differences observed in student achievement which can be attributed to student background characteristics that are unlikely to change (i.e., the equity dimension of effectiveness). This report aims to explore the relationship between these two dimensions of effectiveness at the school and country level. To achieve this aim, secondary analyses of data from PISA 2015 and 2018 are conducted. Specifically, we first investigate whether variables associated with economic prosperity (such as SES, GDP and GNI) can explain differences in student learning outcomes. Then, we explore whether educational systems which appear effective in relation to quality are also effective in relation to the equity dimension of effectiveness. Subsequently, we examine whether an improvement in the effectiveness status of countries in relation to one dimension can lead to the improvement of the other dimension. Through within-country analyses, the relation between the two dimensions of educational effectiveness at the school level in Cyprus is examined. The results show that GDP has a significant effect on student achievement in each subject (Mathematics, Science, and Reading), therefore educational systems should control for this effect when establishing policies for promoting equity in education. The findings of this study also reveal a strong relationship between quality and equity at both the country and the school level. The across country analyses showed that the achievement gap (in Mathematics, Science, and Reading) based on SES tends to be smaller in countries and schools which achieve better learning outcomes. It is also shown that the great majority of countries that can be considered as among the most effective in terms of the quality dimension are also among the most effective in terms of the equity dimension. As regards the relationship between the two dimensions of effectiveness at the school level in Cyprus, the great majority of the schools that can be considered as among the most effective in terms of the quality dimension were also found to be among the most effective in terms of the equity dimension. The implications of the findings for promoting quality and equity are drawn.

**Keywords:** educational effectiveness research; quality and equity in education; socioeconomic status (SES); Program for International Student Assessment (PISA).

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