Evaluating the Impact of a Growth Mindset Intervention in Argentina

Researchers:

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Sector(s): Education

Location: Salta, Argentina

Sample: 202 public secondary schools

Initiative(s): Post-Primary Education Initiative (PPE)

Target group: Secondary schools Students

Outcome of interest: Dropout and graduation Enrollment and attendance Student learning

Intervention type: Information

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Research Papers: Growth Mindset Interventions at Scale: Experimental Evidence from Argentina

Partner organization(s): Ministry of Education, Science, and Technology of Salta, Inter-American Development Bank (IDB)

Misperceptions about the payoffs from schooling can lead families to underinvest in their child's education. In Argentina, a researcher evaluated whether informing students of their potential could be a cost-effective way to increase motivation and improve educational outcomes among secondary school students. They found that the intervention did not impact students' perceptions of the difficulty of school tasks, school climate, academic performance, or future education plans.

Policy issue

The educational decisions made by parents and children are shaped by their beliefs regarding the advantages of education. These beliefs influence various aspects of education, including school attendance, the type of school chosen, and investments made in additional educational resources (e.g., tutoring). Research from low- and middle-income countries has found that low-income families often demonstrate a tendency to invest less in schooling due to specific beliefs; however, their behavior can be altered when they receive information about the benefits of education and the quality of schools. Moreover, other studies have demonstrated that providing individual-level feedback to parents and children about their child's academic performance can be a low-cost way to increase educational attainment. However, these interventions have mostly focused on providing information about students' current abilities rather than their potential.

Emerging evidence from experimental psychology in the United States has suggested that providing information about the potential to improve intelligence can positively affect students' self-perceptions and school performance by creating a "growth mindset." However, little research has been conducted to understand the effects of providing this information to students at scale in low- and middle-income countries. Could information about student potential delivered at scale be an effective way to increase students' motivation and educational attainment in a middle-income context?

Context of the evaluation

Primary and secondary school is both compulsory and free in Argentina. Secondary school enrollment rates are higher than most other countries in the region. However, youth in secondary school are less likely to graduate than their peers in other upper-middle-income countries. Additionally, although Argentine youth used to rank among the highest in Latin America in international standardized tests, in 2012, they were among the lowest ranked in the world. The secondary schooling system in the Province of Salta, where this evaluation took place, is one of the lower-performing systems in the country.

Of the 334 secondary schools in the Province, 202 public schools located in urban and semi-urban areas that enrolled at least ten students in Grade 12 (the target grade for the intervention) participated in the study. Among Grade 12 students in study schools, 74 percent of students passed the grade, and just over 2 percent of students dropped out of school.



Students at a desk learning

Photo: Yuri A, PeopleImages.com

Details of the intervention

In partnership with the Ministry of Education, Science, and Technology of Salta, a researcher evaluated the impact of an information program aimed to foster a “growth mindset” on educational attainment in Argentina.

The researcher randomly assigned 202 public secondary schools in the Province of Salta to one of two groups. Grade 12 students in the first group of schools read a brief text about how intelligence can develop through practice at challenging tasks, wrote a short letter to their friend about how they related to the text, and then posted the letter in their classroom. Grade 12 students in the second group did not receive the information intervention and served as the comparison group.

The researcher utilized national assessment data from 2016 and 2017 (captured 10 months prior to and 2 months following the intervention, respectively), as well as the 2016 and 2017 census of schools, to gather information about students' academic achievement, beliefs, effort, and post-secondary plans; measures of student performance (enrollment and rates of passing, failure, repetition, and dropout); and schools' resources, support systems, and climates.

Results and policy lessons

The intervention had no impact on students' beliefs, effort, performance in school, and post-graduation plans or on the school climate.

Impact on student beliefs and aspirations: Two months after the intervention, students' perspectives on the challenging nature of their coursework, their sense of competence in math and language, and their perception of the value of in-class exams remained unchanged. However, the intervention had a negative effect on the beliefs of some students. Girls in schools that received the intervention perceived schoolwork to be more difficult and themselves to be less capable, students from low-income backgrounds also viewed themselves as less capable, and those who repeated a grade saw class assignments as less useful.

Impact on student effort: After two months, the information intervention had no impact on the student's behavior related to their schoolwork, such as attending classes and receiving private tutoring; their personal growth activities like reading, language learning, and sports; or their current commitments like work within or outside the home.

Impact on student performance and achievement: The intervention did not impact students' school performance (e.g., the likelihood of passing, repeating, or dropping out of school), math and language national assessment results, or post-secondary education plans. However, in schools with more math resources, the program negatively impacted student achievement.

Impact on school climate: The intervention did not improve the school climate, as measured by student relations, school bullying, and student vandalism. However, there is evidence that girls may have gotten along worse two months after receiving the intervention.

Taken together, an intervention aimed at cultivating a "growth mindset" among Grade 12 students in Argentina did not improve students' perceptions of task difficulty, effort, academic performance, or achievement, nor did it impact the school climate.