

Promoting Early Adolescent Development through Whole-School Reform

The Pioneer Middle School Program, a government-led whole-school reform, led to multidimensional benefits for lower secondary school students in Morocco. This brief highlights results from a quasi-experimental impact evaluation conducted in collaboration with the Ministry of National Education, Preschools, and Sports.¹ The study was conducted during the 2024-2025 school year in 300 public lower secondary schools across Morocco.



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POLICY ISSUE

Low student performance in post-primary education is a widespread problem in many low- and middle-income countries, including Morocco. Although school enrollment and completion have increased over recent decades, many students lack the foundational skills needed to succeed in higher grades or in the labor market. Adolescence brings additional physiological, social, and academic challenges that may undermine students' engagement and persistence in school, making middle school an influential period for students' long-term education and life trajectories.

INTERVENTION DETAILS

In 2024, Morocco launched the Pioneer Middle School Program, a national whole-school reform—a comprehensive approach that transforms a school's ecosystem—first introduced in 232 schools intended to reduce school dropout as well as to improve learning and socioemotional skills. Since then, the program has been expanded to over 1,300 schools with plans to reach all middle schools by 2028.

The Pioneer School Program was first introduced in primary schools before being adapted for middle schools by introducing additional components tailored towards adolescent students.

The program begins with a six-week period of full-time remediation, during which instruction is tailored to students' actual learning levels. Throughout the rest of the school year, teachers use lesson plans and teaching materials based on a structured pedagogy approach. The program also introduces a range of extracurricular activities and establishes a dedicated school team (principal, social specialist, teacher, head supervisor) to identify, monitor, and provide individualized support to students at risk of dropping out. For example, these students are eligible to receive in-school tutoring. Schools that successfully implement the program then receive certification. In its first year, 84 of the 232 participating schools also offered socio-emotional development workshops for students in Grades 7 and 8, which were later expanded as the program scaled to more schools.²

KEY TAKEAWAYS

1 The reform helped keep students in school.

In Pioneer Middle Schools, about 3.5 out of every 100 students dropped out during the 2024-25 school year (this figure includes those who did not re-enroll in the 2025-26 school year), compared to about 5 out of 100 in similar schools without the program (a 31.4 percent decline). The program also reduced the share of students who repeated a grade by 42 percent (an 8.5 percentage point reduction).

2 Students in program schools learned three times faster.

The program had the largest impact in science, followed by French, math, and Arabic. In science, there was a greater effect on questions requiring lower-order thinking skills (“knowing”) and in chemistry. In math, students had the greatest improvement in number sense and basic operations (addition, subtraction, multiplication, and division). In Arabic and French, they improved most strongly in their oral skills. Students at all achievement levels made learning gains, suggesting the program benefits both higher- and lower-performing students.



Photo credit: Ministry of Education

3 The program helped learners build socioemotional skills.

Socioemotional skills for students in program schools improved by 0.22 standard deviations relative to students in non-program schools. Importantly, the program improved intrapersonal skills, as measured by students’ perceived control and self-discipline, as well as interpersonal skills, measured by pro-social behavior and emotional perception. Students improved the most in the intrapersonal skill “locus of control”, which captures whether students attribute outcomes to their own actions rather than to external forces. These gains appear to have been driven primarily by the whole-school reform package rather than the socioemotional skills workshops.²

4 Students at risk of dropping out benefited most from the program.

The program’s impact on reducing student dropout is more than twice as large for students considered to be at risk of dropping out (a 3.6 percentage point reduction). These students also improved their socioemotional skills more strongly. The program had no measurable effect on creativity for students overall, but creativity improved for students at risk of dropping out. Learning gains for students at risk were similar to those of other students.

5 This government-led reform delivered multidimensional benefits during the formative stage of early adolescence.

The program’s success in improving multiple educational outcomes (dropout, learning, and socioemotional skills) suggests that multi-component programs in public school systems can be effective channels to address key education challenges and increase students’ learning outcomes. At the same time, more research could help to understand the impact of each individual program component and inform decision-makers in allocating limited public resources most cost-effectively.

Citations

1. de Barros, Andreas, Alejandra Campos Quintero, Najiba El Amrani Mida, Paul Glewwe, Nikhil Kumar, and Laure Lépine. 2026. “Beyond Basics: Whole-School Reform and Early Adolescent Development,” CEGA Working Paper Series No. WPS-260, Center for Effective Global Action, University of California, Berkeley. <https://doi.org/10.26085/C3RP5W>.

2. de Barros, Andreas, Alejandra Campos Quintero, Paul Glewwe, Nikhil Kumar, and Laure Lépine. “Developing Socioemotional Skills in Early Adolescence: Experimental Evidence from Morocco’s Public Schools.” *Journal of Development Economics*. Conditionally accepted (Registered Report), 2026.