Teaching Patience in Classrooms for Improved Student Decision-Making and Behavior in Turkey

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Sector(s): Education

Location: Istanbul, Turkey

Sample: Third and fourth grade students in 73 classes in 37 schools

Target group: Primary schools Students Teachers Urban population

Outcome of interest: Student learning

Intervention type: Training Soft skills

Data: Download dataset from The University of Chicago Press Journals

Research Papers: Fostering Patience in the Classroom: Results from Randomized Educational Interv...

Partner organization(s): Republic of Turkey Ministry of National Education, ING Bank

While patience and other non-cognitive skills are associated with a range of positive economic and social outcomes, it is not clear if and how individuals can learn to be more patient. Researchers introduced an educational program focused on teaching patience to evaluate the impact on students' decision-making and willingness to wait for a future reward over the present. Students assigned to the program demonstrated more patient decision-making, which persisted almost three years after the program. Students also were less likely to receive low behavior grades.

Policy issue

A growing body of research shows that non-cognitive skills, particularly patience and self-control, are important for educational achievements, labor success, and health outcomes. Impatient youth are more likely to consume alcohol and cigarettes, not save, and have a higher body mass index, lower grades, and more disciplinary violations at school. These correlations persist into adulthood; more patient children have better outcomes in health, education, job markets, social competence, and income over their lifetimes. Given the life-long importance across many outcomes, how, if at all, can patience be learned?

Context of the evaluation

As part of a series of evaluations to improve non-cognitive skills for students, researchers partnered with the Ministry of Education in Turkey to implement programs across public elementary schools in Istanbul, Turkey. Turkey mandates twelve years of compulsory education for students, divided into elementary, middle, and high school that each last four years. Students in public schools are mostly from lower socioeconomic backgrounds, as wealthier parents prefer to send their children to private schools. The Ministry of Education encourages schools and teachers to use up to five classroom hours per week participating in programs offered by the private sector, NGOs, government, and international organizations. The programs cover a range of topics, such as environment, art, foreign languages, health, and more. Schools that participated in this study had an average of

two classrooms per school. Teachers also assess students' disciplinary conduct by reporting behavior grades at the end of the academic year to the school administration. At baseline, students on average received a behavior grade of 4.3 out of 5.



A researcher hands out worksheets to students in Turkey

Photo: Sule Alan

Details of the intervention

Researchers conducted a randomized evaluation to test the impact of an educational program to teach patience on student's decision-making and behavior. To do so, the research team designed a new curriculum to teach students how to visualize the future and understand trade-offs between decisions in the present versus the future. The material consisted of eight mini case studies and class activities focused on topics such as imagining the future self, self-control against temptation goods, saving for a target, and evaluating alternative future outcomes. Educational consultants first trained teachers on the curriculum, and teachers then covered the materials with their students over eight weeks for at least two hours each week.

For this study, the sample consisted of third and fourth grade students in 73 classes across 37 schools. Once at least one teacher expressed willingness to participate in a training program, researchers randomly assigned their entire school to one of three groups:

1. *The initial intervention group:* In fifteen schools, both teachers and students received the program in Spring 2013.
2. *The delayed intervention group:* In ten schools, both teachers and students received the training program in Fall 2013.
3. *The comparison group:* In twelve schools, teachers received the training program after two years, but the students never received the training program as they graduated onto middle school.

Before training teachers, researchers surveyed all students, teachers, and parents to collect baseline data like gender, academic performance, and student's family socio-economic status. After schools implemented the program, researchers physically visited the classroom in four phases over three years to measure both short- and long-term impacts on student's decision-making. Researchers utilized two common methods to measure student's decision making: one tested if students would choose to receive two gifts immediately or wait for more gifts in the future and the other asked students to allocate tokens for either an earlier date or a later date which would accrue interest and gain value.

Results and policy lessons

The program increased students' patient decision-making and also led to higher behavior grades in the classroom.

Increased Patience: In both the initial and delayed treatment groups, students offered the program demonstrated more patient choices. A month after the program, students in the initial treatment group demanded on average 0.83 fewer gifts than the 3.02 gifts demanded by comparison students, in order to wait a week to receive more (a 27 percent decrease). These impacts persisted over time. Students in the initial treatment group continued to make more patient decisions eight months after the program ended, and the impacts were similar in size to the immediate effects for the delayed treatment groups. Additionally, a year after the initial treatment and six months after the delayed treatment, both groups of students continued to report more patient decision-making. While comparison students allocated 2.23 tokens to today over the future, students in both treatment groups allocated around 30 percent fewer tokens.

Students continued to make more patient decisions nearly three years after the program ended. The program was effective for all students in the short-term. However, the long-term results were only sustained for girls, students who were academically successful, and students who made consistent choices about receiving or delaying the reward regardless of how long they would have to wait.

Behavior grades: Students in both treatment groups were ten percentage points less likely to receive a low behavior grade one year after the initial treatment and six months after the delayed treatment, compared to an average of 23 percent for students in the comparison group (a 45 percent decrease). The results also suggest that increased patience led to the improvements in behavior scores. Students who exhibited more impatient behavior had lower behavior grades; specifically, allocating one additional token to the earlier date, rather than the future, led to a 14 percentage point increase in the likelihood of receiving a bad behavior grade from a base of 23 percentage points (a 61 percent increase).

Embedding character education into existing school curriculum is relatively inexpensive compared to many other educational programs. Thus, teaching patience to students at an early age can be a cost-effective way of improving non-cognitive skills along with behavior at school. However, such program may need to be more intensive or longer to prevent the effects fading for academically less successful students. More research is needed to better understand the precise channels for enhancing non-cognitive skills in the classroom.

Based on results from a series of evaluations, the Turkish Ministry of Education is now launching similar curricula in primary and post-primary schools to improve non-cognitive skills through activities. One of the researchers will serve as the lead academic to advise the Ministry on developing the content of the curricula. She will also conduct a randomized evaluation of the program, planned to begin in Fall 2019. The researcher's previous work in Istanbul, in addition to this evaluation, will inform the government's program, particularly the teacher training component.

Alan, Sule, and Seda Ertac. 2018. "Fostering Patience in the Classroom: Results from Randomized Educational Intervention." Journal of Political Economy 126 (5): 1865-1911.