

In Indonesia, a replication of a Growth Mindset intervention had significant impacts on student academic performance—particularly in schools located in regions that could benefit the most.

Student learning outcomes in Indonesia have remained lower than their regional neighbors and other middle-income countries, as suggested by the results of the Program for International Student Assessment – PISA. Aside from socioeconomic conditions and access to educational resources, student motivation may be another relevant reason behind the lag, particularly among low-income students.¹ Data from PISA indicates that the majority of 15-year-old Indonesian students do not believe that abilities and intelligence can be developed.²

In prior work in Peru, eMBeD and World Bank colleagues had demonstrated the positive impact of a Growth Mindset intervention to improve student effort and, subsequently, test scores.³ Groundbreaking research, developed by Carol Dweck at Stanford University, has shown that people with “fixed mindsets” (who believe that intelligence is static) put less effort into learning than those with “Growth Mindsets” (who believe that intelligence can be improved with effort). In Indonesia, the **Education, Poverty & Equity**, and eMBeD teams from the World Bank, developed the “Semua Bisa Pintar!” (Everyone Can Be Smart!) project, a Growth Mindset classroom program adapted to the Indonesian context, with the goal of replicating the success in Peru.

The Project⁴

Between October 2016 and May 2017, the World Bank, with support from the **Australian Department of Foreign Affairs and Trade (DFAT)**, conducted the adapted Growth Mindset intervention across 2,404 public junior secondary schools, divided evenly and randomly between those receiving the program and those serving as the control group. Nearly 160,000 students received the intervention, making this one of the largest Growth Mindset applications to date.

The intervention designed a set of four comic books to make the messages as simple, attractive, and context-relevant as possible. It featured key messages about Growth Mindset, self-belief, and perseverance, adapted for Indonesian students attending Grade 9, the last year of junior secondary school.

In the comic books, key messages were repeated several times in large, bold text, including “otakmu seperti otot” (“Your brain is like a muscle”) and “belajar dari bertanya” (“Learning by asking others”). The books used relatable characters designed in the style of modern-day cartoons and included storylines that put the characters in classroom situations that would be familiar to adolescent students in Indonesia.

The design also included classroom discussions to emphasize key messages and simplified delivery for teachers, including a lesson plan that incorporated visual, auditory, and kinesthetic sessions, to ensure that students were able to absorb the information. To avoid overloading the students with new materials, the delivery was split into two 40-minute sessions, also matching the length of classroom periods in Indonesian academic contexts.

To allow teachers to deliver the sessions with minimal preparation, the instruction manuals included guiding details like scripts and timestamps. In addition, all materials were printed and shipped directly to schools.

As part of the evaluation, the team conducted compliance checks on the materials, wrote letters to the headmasters and teachers, and conducted phone calls and emails to track the delivery and ensure that activities were carried out. The team also asked principals and teachers to send pictures of students holding up the comics at the completion of the sessions as a form of evidence of successful implementation. In order to assess its impact, data on student performance from the national standardized exam (Ujian Nasional) was analyzed, comparing students from the schools that received the intervention with those that did not.



The Results



Overwhelmingly, schools complied with the treatment.

From the total of 1,202 schools selected to receive the program materials, only 198 (16.5%) did not send a message confirming that they effectively delivered the sessions. Additionally, we verified that these non-complying schools did not have different performance than the rest of participating schools before the application of the program.



The intervention contributed to an overall increase on test scores.

Schools that were selected to receive the intervention showed an increase of 0.06 standard deviations (sd) on the aggregate score of the national standardized exam and of 0.08 sd on the Math score, conducted at the end of the academic year. Furthermore, schools that effectively complied with the activities of the intervention presented additional impacts on Science and English scores of 0.06 sd.



Students in Sumatra benefited the most.

The program was implemented in the two main islands of Indonesia, Java and Sumatra, which together represent 72% of the population of the country. However, the provinces from Java tend to have higher scores of the national exam than the ones from Sumatra. With this intervention, the impact on student performance was higher in the schools of Sumatra, where test scores increased for all subjects covered by the national exam. In schools from Sumatra that effectively implemented the sessions, test scores increased by 0.08 sd for Language and 0.18 sd for Math, while scores in English and Science increased by 0.14 sd.



A high impact at a low cost.

As with the experience from Peru, the “Semua Bisa Pintar!” program was highly cost-effective, providing substantial impacts on academic performance at an average cost of 25 cents of US dollar per student, at the moment of implementation.



Policy Implications

As in [Peru](#) and later, [South Africa](#), the Growth Mindset intervention in Indonesia demonstrates the promising impact of teaching this skill to students to improve effort and, subsequently, test scores and student performance over time. Additionally, it shows the potential for doing it at scale in a cost-effective manner.

The results also emphasize the importance of adaptation to local contexts. By simplifying the materials for students and instructions for teachers, providing humorous content, and introducing novel, country-specific visuals, the team was able to modify what has worked elsewhere for maximum impact. This demonstrates that successful interventions need not be a “one size fits all” approach but rather adapted and contextualized.

Successful interventions need not be a “one size fits all” approach but rather adapted and contextualized.

The results from Indonesia also corroborate the important takeaway that we’ve seen in other country contexts: while Growth Mindset can have an impact on all students, it seems particularly impactful on students from distinctive backgrounds. In the case of Indonesia, students from schools in Sumatra, with lower average test scores than those from Java, experienced more substantial impacts, suggesting that the intervention shifts the beliefs about learning for those who can make the most of it.

Following these promising initial results, the Indonesia Ministry of Education and Culture has engaged the World Bank for further development of this successful Growth Mindset module.


About eMBeD

The Mind, Behavior, and Development Unit (eMBeD), the World Bank’s behavioral science team in the Poverty and Equity Global Practice, works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviorally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and enhance equity.




Stay Connected

 eMBED@worldbank.org

 [#embed_wb](https://twitter.com/embed_wb)

 worldbank.org/embed

 bit.ly/eMBEDNews



Australian Government
Department of Foreign Affairs and Trade



WORLD BANK GROUP
Education



WORLD BANK GROUP
Poverty & Equity

eMBED
Mind, Behavior, and
Development Unit

1. See Blackwell et Al. (2007), Paunesku et Al. (2015), and Yeager et Al. (2014)
2. According to the latest results from PISA (2018), 29% of Indonesian students agree that intelligence can be changed over time, compared to an average of 63% for OECD countries.
3. For further information, see the results brief of our project in Peru following [this link](#) and the results of our South Africa work at [this link](#).
4. This work was supported by the Australian Department of Foreign Affairs and Trade (DFAT) through the Partnership for Knowledge-Based Poverty Reduction Trust Fund (WB Trust Fund N° TF071514, AusAID N° 56043).

Last Update: December 13th, 2019