

Press release

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A nationwide 'Digital Role Model' program shifts the study choices of thousands of Ecuadorian students—but not in the way expected

Igor Asanov, Thomas Ástebro, Guido Buenstorf, Bruno Crépon, Francisco P. Flores-Taipe, David McKenzie, Mona Mensmann, and Mathis Schulte published a study in Nature Human Behaviour that reveals surprising effects of online interventions aimed at broadening students' choice of study subjects. We are honored to present the findings of the 'Showing Life Opportunities' project in Nature Human Behaviour. This publication marks a milestone for the initiative, representing a highly successful international collaboration between INCHER-Kassel, the World Bank, Innovations for Poverty Action, and others.

Young people often decide what to study without being aware of the wide variety of well-paid professions open to them. While in-person role models can shift career aspirations, they are inherently limited by scale and usually only bring young people into contact with one person in a profession. So why not use the potential of digital tools and technologies to familiarize young people with a variety of professions and show them life opportunities?

The “Showing Life Opportunities” project team investigated in a nationwide randomized controlled trial with “A” compliance—a 94% participation rate among thousands of students. The study tested the effectiveness of remote delivery of role models at scale by providing high school students in Ecuador with online video interviews—an experiment with 29,243 students in 813 schools. Students saw role model videos in both STEM (which stands for Science, Technology, Engineering, and Mathematics) and entrepreneurship careers.

Students were randomly allocated to mixed-gender set of role models. Promoting STEM and innovative entrepreneurship are both parts of Ecuador’s national strategy for improving productivity. The study demonstrates the feasibility of online delivery at low cost (86 cents per student) in a developing country setting.

The authors find that unexpectedly students shift college major enrollment away from STEM towards alternative career paths. Irrespective of the gender mix of role models, they were shown girls treated with multiple role models reduce their likelihood of choosing a STEM major, increasing enrollment in business majors instead. Boys also shift their major choice away from STEM, and move towards other majors like agriculture. But why? The authors think, that maybe this results partly from presenting students with role models who demonstrate entrepreneurship as an alternative career path. The STEM role models were perceived by the students as showing that STEM careers are more difficult, more male-dominated, and carry greater social stigma than entrepreneurship.

The Showing Life Opportunities project at the University of Kassel, which forms the basis of the recent study, is investigating how online educational courses can be used to get young

people excited about entrepreneurship and careers in science and technology. INCHER-Kassel is carrying out the project in collaboration with the Ecuadorian Ministry of Education, the World Bank, Labex ECODEC ENSAE, HEC Paris, and the University of Cologne.

The present publication in *Nature Human Behaviour*, a renowned journal for social and natural sciences, is not the only success for the project team. As early as 2021, the SLO project had won the prestigious Path to Scale Award granted by Innovations for Poverty Action, a US-based non-profit organization that sponsors experimental work in development economics. The award recognizes SLO's achievements in scaling up interventions from specific experimental settings to large-scale applications, and in 2023, the article "System-, Teacher-, and Student-level Interventions for Improving Participation in Online Learning at Scale in High Schools" by Igor Asanov, Anastasiya-Mariya Asanov (Noha), Thomas Åstebro, Guido Buenstorf, Bruno Crépon, David McKenzie, Francisco Pablo Flores T., Mona Mensmann & Mathis Schulte has been published by the renowned *Proceedings of the National Academy of Science (PNAS)*, one of the world's most cited and comprehensive multidisciplinary journals. – and for the near future the team has let us know that further high-profile publications are expected.

Bibliographical information

Igor Asanov, Thomas Åstebro, Guido Buenstorf, Bruno Crépon, Francisco P Flores-Taipe, David McKenzie, Mona Mensmann, and Mathis Schulte (2026): Remote delivery of STEM and entrepreneurship role models at scale changes college major choice in Ecuador. *Nature Human Behavior*. <https://www.nature.com/articles/s41562-026-02421-8>

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