**STEAM Pakistan**

On **Aug 6, 2022**

[Javed Ahmad Malik](https://nation.com.pk/authorpost/columnist/javed-ahmad-malik/)

Have you ever thought about building a race car? A few years ago, a group of young women from Pakistan actually managed to do that. In 2018, an all-girls team from NUST not only designed and built a race car for an international engineering competition, Formula Student but also won the Race Tech Magazine’s Spirit of Formula Student Award. Building an award-winning race car is a great achievement in itself but in the context of the state of science education in Pakistan and the particular challenges faced by girls, it is an incredible feat.
Despite decades worth of evidence and advocacy emphasising the importance of girls’ education, Pakistan continues to have one of the largest populations of out-of-school girls in the world. Before the pandemic, this number stood at a staggering 10.8 million, which is 54 percent of the total number of out-of-school children in the country. Prolonged school closures during the pandemic, coupled with a rise in abject poverty worsened the chances of girls receiving formal education. A recent study led by Harry Patrinos and others at the World Bank concluded that the learning losses incurred during the pandemic were equivalent to roughly one-half years’ worth of learning.
The compound effect of pre-existing barriers to girls’ education coupled with the impact of the pandemic demands a radical departure from the traditional textbook-centered subject segregation approach in favor of integrated models of learning. This will prove to be an important remedial strategy while simultaneously providing our students with a level playing field to compete with their global peers.
Taking heed of this situation the Ministry of Federal Education and Professional Training (MoFEPT) in partnership with the Malala Fund has launched a five-year project, STEAM Pakistan. Under this project, Malala Fund and its partner organisations are supporting MoFEPT to advance secondary school-aged students’ access to science, technology, engineering, arts, and mathematics education. This technical assistance in turn will prove instrumental to the Government of Pakistan to develop, design, and mainstream STEAM education in 13,000 high schools across the country by 2027 with a specific focus on spiking girls’ STEAM aspirations.
This last point is of special significance in Pakistan’s context where a socially constructed dichotomy between science and women continues to limit the potential of millions of girls. In a study conducted by the British Council on women’s participation in science, all the young women interviewed in focus groups suggested that their male counterparts were more biologically gifted to pursue STEM subjects. Such stereotypes, often instilled in children at a young age, play a key role in shaping the worldviews of girls and curtail their aspirations to pursue science beyond high school.
It is then a little wonder that only 4 percent of the engineering jobs in the country are held by women and a mere 22 percent of the current workforce in emerging fields such as robotics are women.
Seeking to address these gaps, the launch of the STEAM Pakistan project reflects farsightedness on the part of the Government of Pakistan and is a welcome step in the right direction. However, as applaud-worthy, as it is, the STEAM Pakistan project is only the first step in a thousand-mile journey. Our girls’ aspirations to excel in 21st-century careers, which increasingly focus on science and technology, require schools, teachers, parents, communities, donors, and corporate entities to come together to support the government in making this endeavour a success. It is only through collaborative efforts that we can together build a Pakistan where our daughters can achieve their full potential.