

# GENDER GAP IN STEM: RESEARCH USING BEHAVIORAL SCIENCE METHODS

INFOGRAPHIC

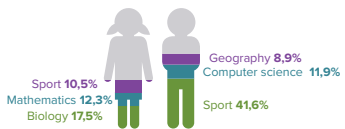


UN Women Bosnia and Herzegovina, in partnership with proMENTE— social research and experts in behavioral science, conducted a research into the gender gap in STEM (Science, Technology, Engineering and Mathematics) among primary, secondary school and university students in BiH. The research took place from June 2019 to March 2020 and included over 900 students and 170 teachers.

The findings show that the choice of women and girls for inclusion in the STEM area is determined by the following factors: stereotypes about social roles, perceived self-efficacy, and self-concept in the STEM area.

## STUDENTS' CHOICE OF FAVORITE SUBJECT IN SCHOOL

Primary school students



High school students



## STUDENTS' CHOICE OF CAREER

Primary school students



High school students

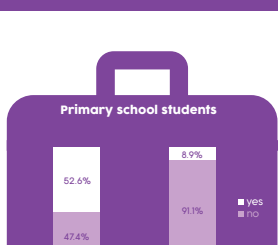


College students



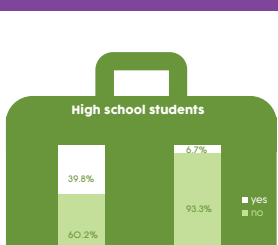
## PERCEPTION OF CAREER AMONG STUDENTS

Primary school students



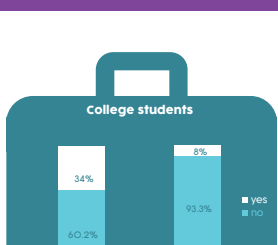
52.6% of male students and 8.9% of female students said that it was more appropriate for men to have a successful career.

High school students



As many as 39.8% of the male students thought it was more appropriate for men to have a successful career, but only 6.7% of the female students thought the same.

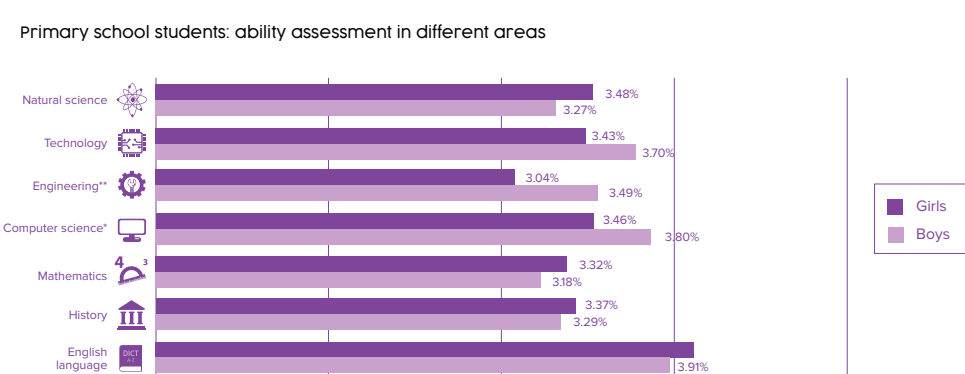
College students



34% of the male students think that it is more appropriate for men to have a successful career, but only 8% of the female students thought the same.

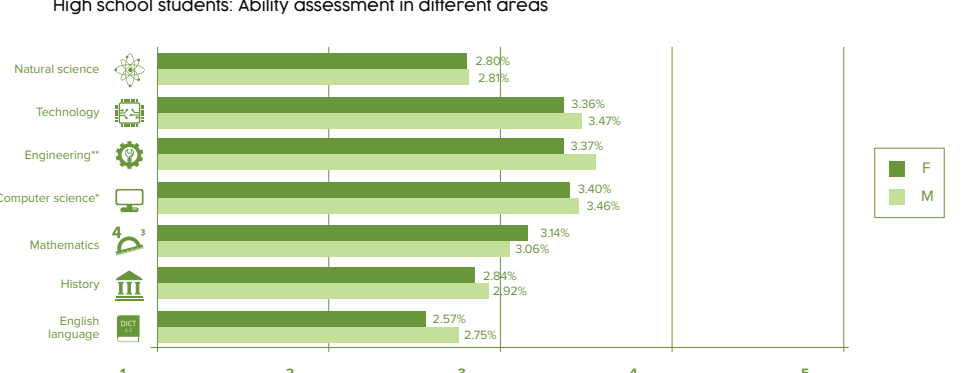
## ABILITY PERCEPTION AMONG STUDENTS

Primary school students: ability assessment in different areas



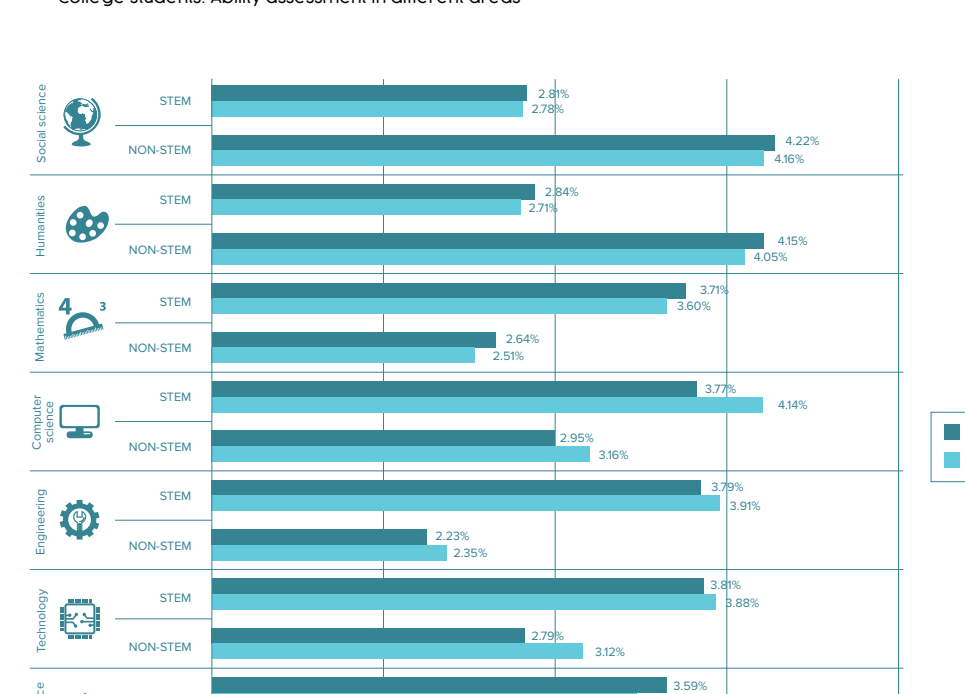
Students assessed their own abilities for different STEM and non-STEM fields. Boys assess their abilities required for the fields of engineering and computer science as being higher compared to the assessments given by the girls.

High school students: Ability assessment in different areas



Students at high school level assessed their own abilities for different STEM and non-STEM fields. The figure above shows the average values determined for the students regarding gender. No statistically significant differences were found. Also, no statistically significant differences were found with regard to grade either.

College students: Ability assessment in different areas

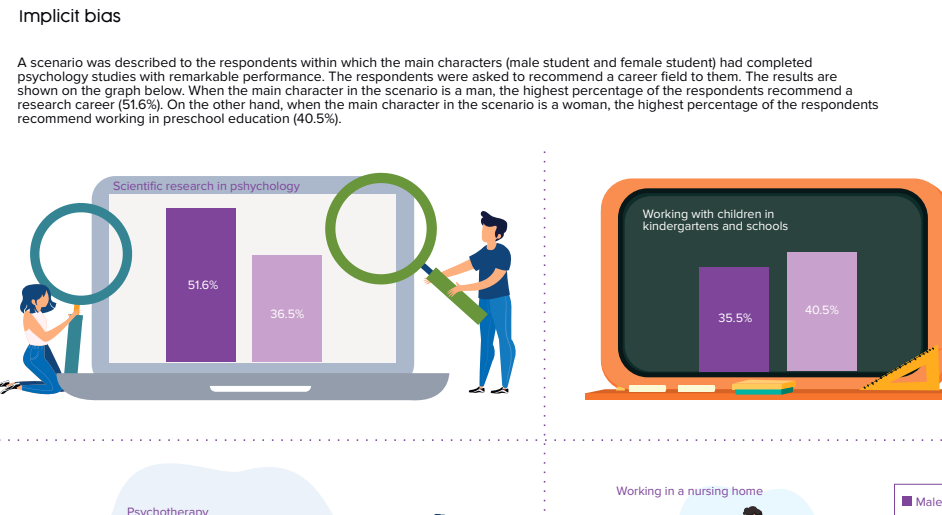


University students assessed their own abilities for different STEM and non-STEM fields. Female students, irrespective of the field of studying, assess their abilities as being lower compared to the male students. Furthermore, students (irrespective of their gender) in STEM fields assess their abilities in natural sciences, technology, engineering, informatics and mathematics as being higher, while the students in non-STEM fields (irrespective of their gender) assess their abilities in liberal arts and humanities as being higher.

## TEACHERS

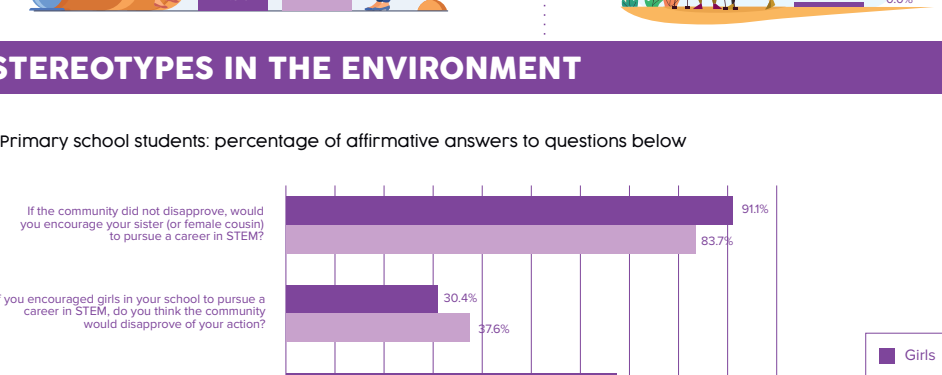
Implicit bias

A scenario was described to the respondents within which the main characters (male student and female student) had completed psychology studies with remarkable performance. The respondents were asked to recommend a career field to them. The results are shown on the graph below. When the main character in the scenario is a man, the highest percentage of the respondents recommend a research career (51.6%). On the other hand, when the main character in the scenario is a woman, the highest percentage of the respondents recommend working in preschool education (40.5%).



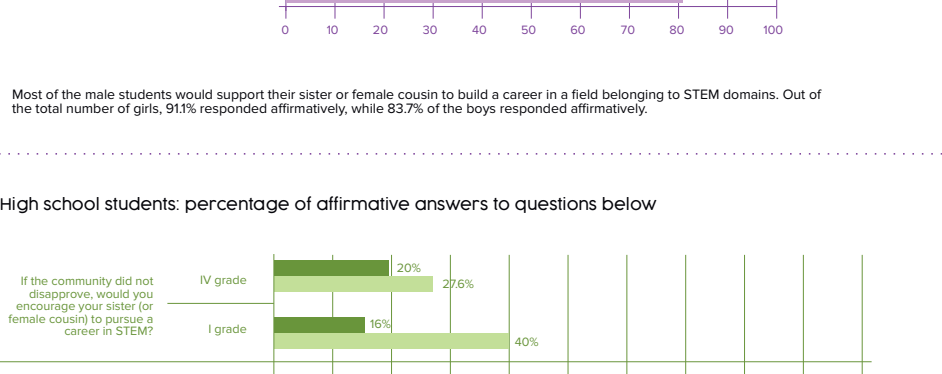
## STEREOTYPES IN THE ENVIRONMENT

Primary school students: percentage of affirmative answers to questions below



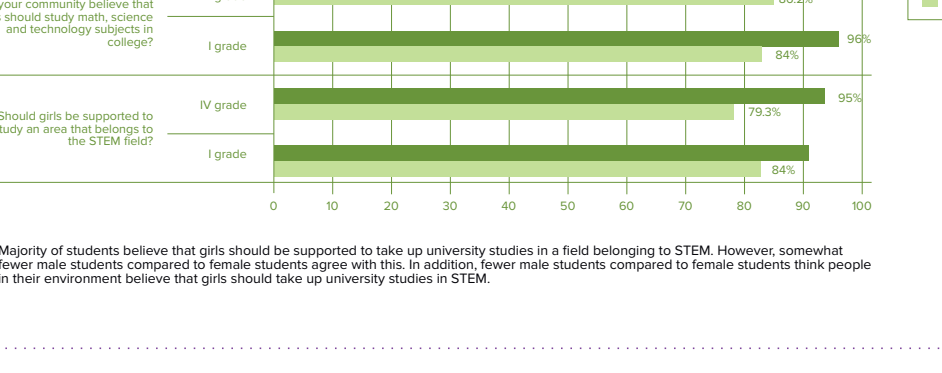
Most of the male of girls, 91% would supported their sister or female cousin to build a career in a field belonging to STEM domains. Out of the total number of girls, 91% responded affirmatively, while 83.7% of the boys responded affirmatively.

High school students: percentage of affirmative answers to questions below



Majority of students believe that girls should be supported to take up university studies in a field belonging to STEM. However, somewhat fewer male students compared to female students agree with this. In addition, fewer male students compared to female students think people in their environment believe that girls should take up university studies in STEM.

University students: percentage of affirmative answers to questions below



There is a significantly higher number of students in non-STEM fields, irrespective of their gender, who would support their sister or female cousin to build a career in STEM fields.