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Ne zgolj sposobnosti: kulturni in psihološki dejavniki, ki so vezani na razlike med spoloma v matematiki

Čeprav ženske danes predstavljajo večino univerzitetnih študentov in so v šoli pogosto zelo uspešne, so v matematiki in STEM področjih še vedno premalo zastopane. Vrzeli se ponavadi pojavijo, ko učenci prehajajo k zahtevnejši matematiki, zlasti pri nalogah reševanja problemov. Te razlike niso posledica prirojene sposobnosti, temveč kulturnih pričakovanj, vzorcev socializacije in psiholoških dejavnikov, ki ustvarjajo neenake pogoje za ženske. Teorija pričakovanj in vrednosti ter socialna kognitivna teorija pomagata razložiti, zakaj pride do tega. Obe poudarjata, da samozavest, dojemanje uporabnosti in spolno pogojena pričakovanja usmerjajo odločitve učencev, ali bodo vztrajali pri matematiki. Raziskave kažejo, da dekleta pogosto podcenjujejo svoje matematične sposobnosti, tudi ko so njihovi rezultati enaki ali presegajo rezultate fantov, ter svoje zaupanje postopoma preusmerjajo v druge predmete. Tudi način razvoja samoučinkovitosti se razlikuje: na ženske močneje vplivajo spodbuda in vzorniki, medtem ko moški ponavadi poudarjajo izkušnje obvladovanja. Stereotipi predstavljajo še dodatno plast, saj povečujejo tesnobo in porabljajo duševne vire, kar včasih pripelje do tega, da ženske prilagodijo svojo identiteto, da bi se s tem spopadle. Ta pritisk še dodatno okrepijo starši, učitelji in pomanjkanje vidnih ženskih vzornikov, kar sčasoma povzroči kopičenje slabosti. Obvladovanje teh ovir zahteva posege, ki krepijo tako znanje kot samozavest, ustvarjajo vključujoča učna okolja in zagotavljajo raznolike vzornike. Nadaljnje raziskave naj bi še naprej preučevale, kako stereotipi oblikujejo izbire, da bi lahke politike bolje spodbujale enakost med spoloma v matematičnem izobraževanju in poklicih.

Ključne besede: matematika, stereotipi, ženske v matematiki

Beyond Ability: Cultural and Psychological Factors Shaping Gender Gaps in Mathematics

Although women now make up the majority of university students and often perform very well in school, they remain underrepresented in mathematics and STEM fields. The gap tends to appear as students move into more advanced mathematics, especially in problem-solving tasks. These differences are not the result of innate ability but rather cultural expectations, patterns of socialization, and psychological factors that create unequal conditions for women. Expectancy-value theory and social cognitive theory help explain why this happens. Both highlight how confidence, perceptions of usefulness, and gendered expectations guide students' decisions about whether to persist in math. Research shows that girls frequently underestimate their mathematical ability, even when their results match or exceed those of boys, and gradually invest their confidence in other subjects. The way self-efficacy develops also differs: Women are more influenced by encouragement and role models, while men tend to emphasize mastery experiences. Stereotype threat adds another layer, increasing anxiety and consuming mental resources, sometimes leading women to adjust their identities in order to cope. These pressures are reinforced by parents, teachers, and the lack of visible female role models, producing cumulative disadvantages over time. Addressing these barriers requires interventions that strengthen both competence and confidence, create inclusive classrooms, and provide diverse role models. Further research should continue to investigate how stereotypes shape choices, so policies can better promote gender equity in mathematics education and careers.

Key words: mathematics, stereotypes, women in mathematics

Mostovi enakosti: pravičnost in vključenost spolov v akademskem prostoru in družbi

Povzetki tretjega posveta o enakosti spolov za vključujočo univerzo in družbo

Koper, 12. december 2025

Bridges of Equality: Gender Equity and Inclusion in Academia and Society

Abstracts of the Third Symposium on Gender Equality for an Inclusive University and Society

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