

ATTITUDES OF FEMALE STUDENTS TOWARD TECHNOLOGY HIGHER EDUCATION PROGRAMMES IN HUNGARY

BY VALÉRIA SZEKERES, ÓBUDA UNIVERSITY, HUNGARY



Outline

- Higher education in Hungary - shortage of female engineering and IT students
- Methods of the research
- Results of the research – attitudes of students towards technology studies
- Conclusion

Higher education in Hungary

- Increase in the number of students, decline in the quality of education
- Technology and science departments are unpopular
- Methodology of science education at secondary schools is problematic

Women in higher education

- Women's number is higher than men's (women studying in secondary schools; having better grades; being more persistent)
- Female students are more successful in getting a degree - a potential source for meeting the demand of (female) engineers
- The share of men in IT and engineering is 5.8 and 3.1 times higher than that of women

Proportion of female/male students in bachelors- and masters-level higher education by subject in Hungary (school year 2017/2018)

	Share of female students	Share of male students	Share of students as percentage in all sciences
Education	79,5%	20,5%	11,2%
Arts	62,4%	37,6%	2,7%
Humanities	63,7%	36,3%	5,8%
Social sciences	63,4%	36,6%	8,3%
Business and management	56,4%	43,6%	16,4%
Law	61,2%	38,8%	4,8%
Sciences	49,6%	50,4%	3,1%
IT	14,6%	85,4%	7,5%
Engineering	24,2%	75,8%	15,8%
Agronomy and animal health	49,1%	50,9%	3,7%
Health and social sector	67,4%	32,6%	11,7%
Services	54,0%	46,0%	6,0%
Not classified according to training area	53,2%	46,8%	3,1%
Total	52,8%	47,2%	100,0%

Source: Hungarian Statistical Office (2018). The spreadsheet was compiled by HSO following a personal request.

Methods of our research

- Focus groups and semi-structured interviews with female students, and semi-structured interviews with five professors from each of the faculties of electronic, mechanical engineering and informatics
- The aim of the research is to understand the attitudes of female students toward academic programmes in technology engineering and IT; what is the proper way of the invocation of female pupils

Students' motivation

- Most female students have friends or relatives who work in the field of technology
- Many students were engaged in tinkering since childhood
- To get accepted in the profession, the possibility of a career and getting a well-paying job of high prestige

Role of parents and teachers

- Ambiguous during the choice of career
- Specific help in attaining the target, but also the incredulity of teachers lead to an attempt to deter the pupils from their objective to get for technical higher education programmes

Experience at the university

- Cool university atmosphere, closeness of students, impoliteness of boys and the lack of companionships
- Getting an MSc degree by attending a correspondence course in the future
- Social abilities (motivation, being organized, discipline, consciousness, kindness) of female students much more developed, thus exercising a beneficial impact on the organizational culture
- Professors regard some female students the best

Stereotypical thinking

- The choice to become an engineer or IT professional arouses regularly amazement; „they will become unfeminine”
- Stereotypes do not cause any dilemma to these students, they love that field since their childhood
- Male chauvinist comments on the part of male students seem to be closely related to the decisions of female students to quit the university

Advantages /disadvantages of the minority status

- Male mates willingly give help related to the university
- Professors have supportive behavior, or a permissive, rather scornful attitude
- Comments, jokes concerning the gender certainly contribute to the survival of stereotypes
- The female students, aware of gender stereotypes, use similar stereotypic expressions against women to protect themselves and to counter that they would be “others” (than the male students)

Measures to inspire female pupils to choose technical higher education programmes

- Personal impressions of an academic programme or a profession in the process of making decision on a career (Girls' Day or lecture by a female student from a faculty or a technician)
- Visual media is significant „to kill stereotypes“: to give a real picture of the content of studies and professions, to increase the self-confidence of potential girl applicants, and to present female students in situations not stereotypical

Conclusion

- To widen the potential scope of talented applicants, it is vital to attract more women to the field of technology
- The faculties should invite female technicians as role models, and multinational companies that have committed themselves to equal opportunities
- Important to open towards the issues of combating gender stereotypes and promoting equal opportunity in education both for the teaching staff and for the students

Conclusion

- To join with and institutionalize the support of professors sensible to the problem of inequality and to create a mentoring system to encourage female students
- To establish a professional organization for female students
- Special programmes (e.g. preparatory course) to female students

Thank you very much for your attention!

szekeres.valeria@kgk.uni-obuda.hu