# Barriers Inhibiting Girls to Apply to Technology Academic Programmes -

Results from a Hungarian Focus Group Study

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Lilla Vicsek, Ph.D. (Corvinus University of Budapest, Krolify Research Institute, e-mail: <a href="mailto:lilla.vicsek@uni-corvinus.hu">lilla.vicsek@uni-corvinus.hu</a>, web: <a href="https://www.uni-corvinus.hu/vicseklilla">www.uni-corvinus.hu/vicseklilla</a>)

Erzsébet Takács, Ph.D. (Krolify Research Institute, web: www.krolify.hu)

Valéria Szekeres, Ph.D. (Óbuda University)











# 1. Hungarian Context – Recruitment Problems in Tertiary Technology Education

- Science and technology careers unpopular
- Problems:
  - a. with reaching Europe 2020 strategic aims
  - b. shortage of professionals within some segments of the Hungarian labour market
- Attempts at solving the problem so far have not succeeded
- Strategic aim: more people should apply to technology programs
- A possible solution: more female applicants



# 2. The European Context

- Similar problems in other countries
- EU: importance of combating gender stereotypes and promoting equal opportunity in education
- Initiatives with the aim to get more girls to choose technology careers ("Girls' Day", etc.)



### 3. About the Research

#### **Research questions:**

- RQ1: What possible barriers stand in the way of getting more female students to apply to technology academic programmes?
- RQ2: What means could be used to potentially get more girls to apply?

Methods: Individual and group interviews (focus groups)



# About the research cont.

Focus Groups with girl students at last year of their secondary school studies in October-November 2011

Location: 3 secondary schools

Group composition:

Group A - 11 girls with good math grades from of a medium strength high school in Budapest.

Group B - 9 girls with language specialization at a secondary school in Budapest

Group C - 12 girl students who specialized in math at a strong secondary school in the countryside



### 4. Results: Barriers

#### Lack of knowledge

- Stereotypes, misconceptions regarding some technology professions
- Negative experience with some subjects at school
- Gender stereotypes of the girls
- Lack of interest
- Low self-esteem
- Gender stereotypes, differential treatment from others (including teachers, parents, etc.)
- Absence of female role models



#### **Lack of knowledge:**

Natália: I think it is also a problem that we do not even know what professions there are nowadays. Okay, I know that there is lawyer and doctor...

Zsóki:But they are very general.

Natália: Yes, like fireman, policeman, ...but I do not even know what my father is doing exactly. All I know that it has to do with computers...

(Group B)



# 5. Results: Options of Promoting More Female Secondary Students to Apply to Technology Academic Programmes

#### Importance of:

- Increasing knowledge
- Getting to know female role models
- Direct personal experience, personal contact
  - Girls' Day programmes
  - lectures from successful female engineers or IT professionals
  - hearing the experiences of alumni students of their secondary school who study in tertiary technology education
  - open days programs at universities



# Conclusions

- diverse barriers
- difficulty: roots of some of these barriers go back to earlier stages of socialization
- ground for hope: lack of knowledge important barrier



 if universities are open to the application of certain promotion methods it is a possibility that at least some more girls might choose technology related studies



Éva: It would be good to meet with such a woman: then you could see that there is a woman in the profession if they came to our school to tell us that this is really not bad for girls either.... An open day is I think an important possibility,... so that girls can go to a workplace and look around. If there could be workers there designated, each of them to students and they show the girls around, they try to work together. I think it is really important for the girls to see what these people actually do, how this and that works... (Group C)

# Thank you for your attention!

E-mail: lilla.vicsek@uni-corvinus.hu