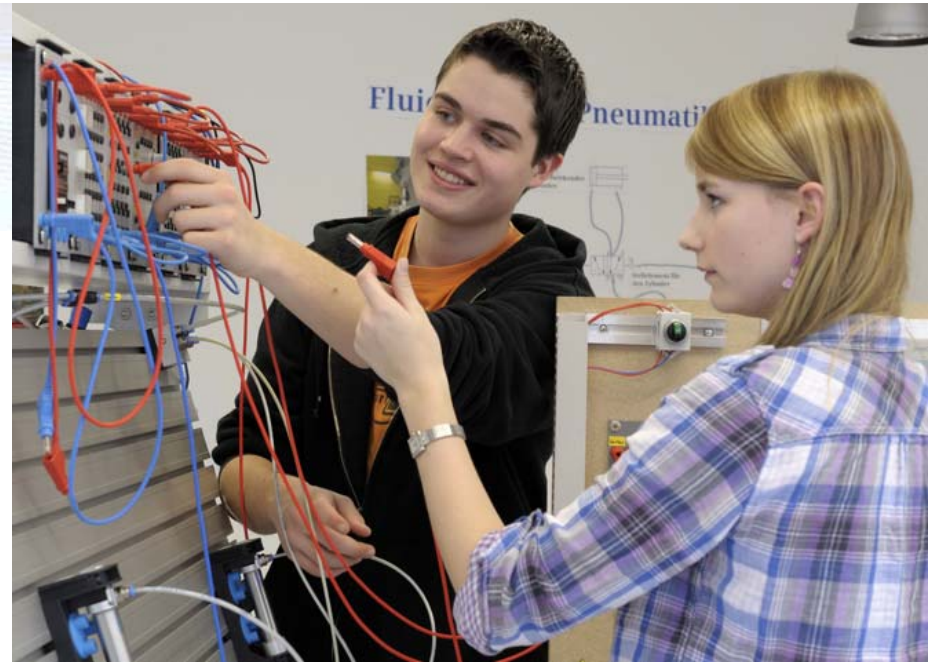


SATW

Schweizerische Akademie der Technischen Wissenschaften
Académie suisse des sciences techniques
Accademia svizzera delle scienze tecniche
Swiss Academy of Engineering Sciences



Swiss Barometer of Young Talent in STEM subjects (MINT-Nachwuchsbarometer Schweiz)

Beatrice Huber

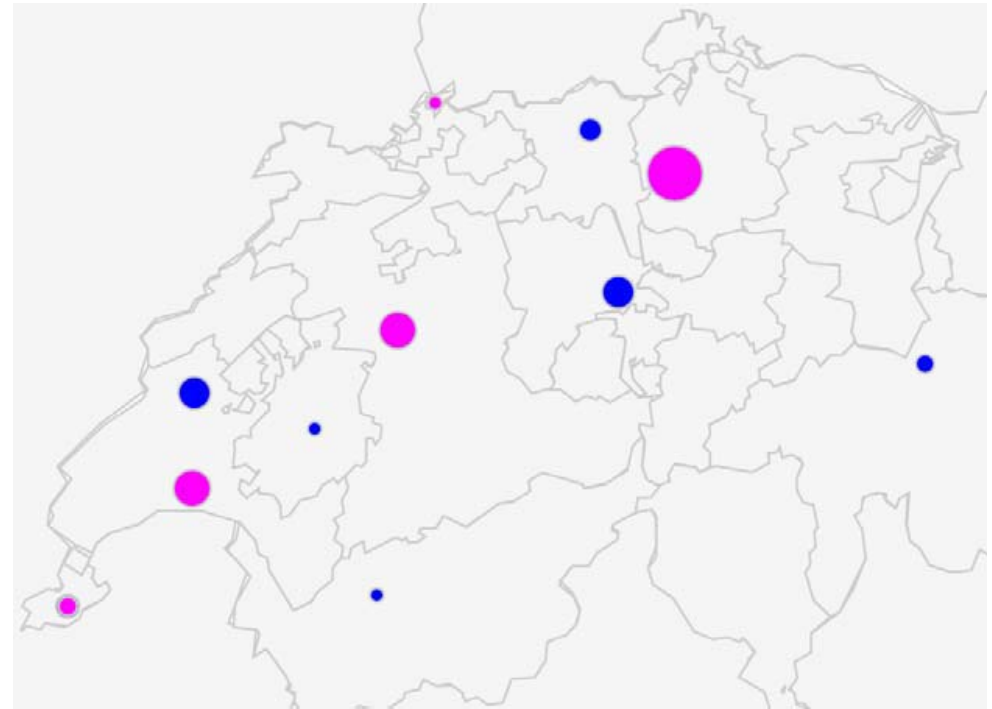
SATW

Research questions

1. Which conditions (family, school and society) encourage interest and talent in the STEM sector?
2. Why do youngsters (male and female) choose or reject studies in the STEM sector?
3. What is students' experience of their studies?

Research design

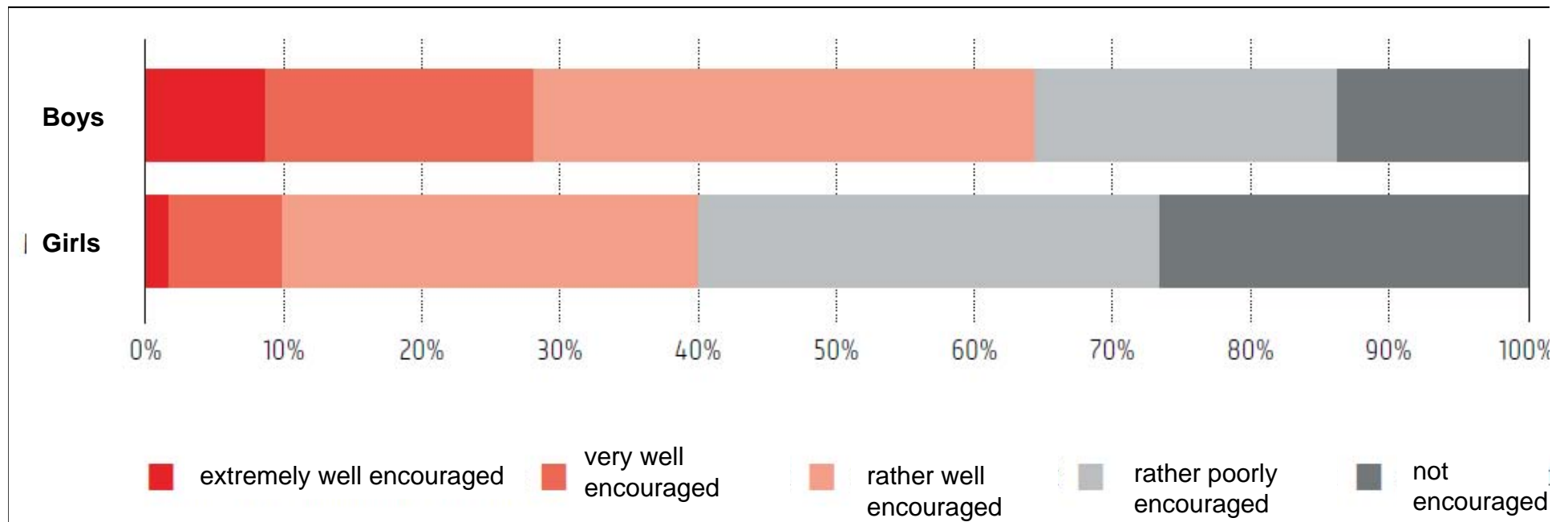
Online survey 2012
in German-speaking
and French-speaking
Switzerland



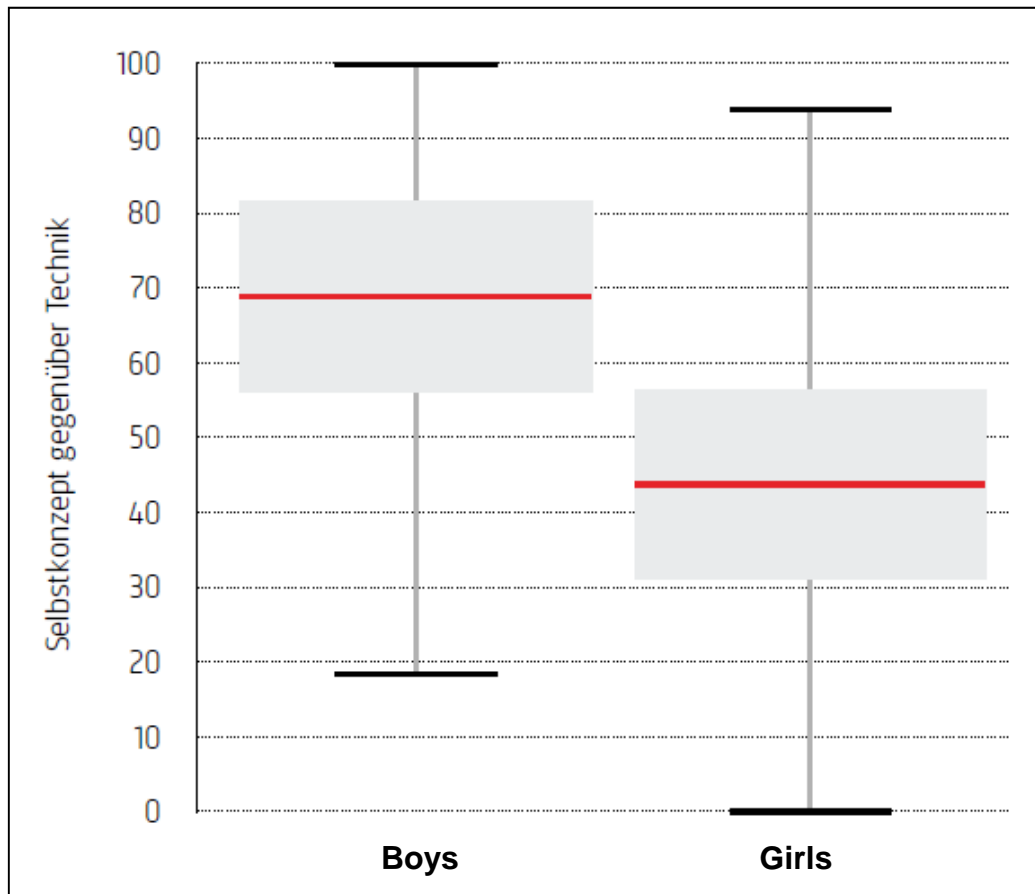
- 3507 youngsters (14-19 years old, approx. 2/3 male)
- 1598 students (STEM subjects, economics)
- 945 in employment (STEM subjects)

Survey conducted and evaluated by the School for Teacher Education of the University of Applied Sciences and Arts Northwestern Switzerland FHNW

Perceived informal encouragement in technology (614 pupils)



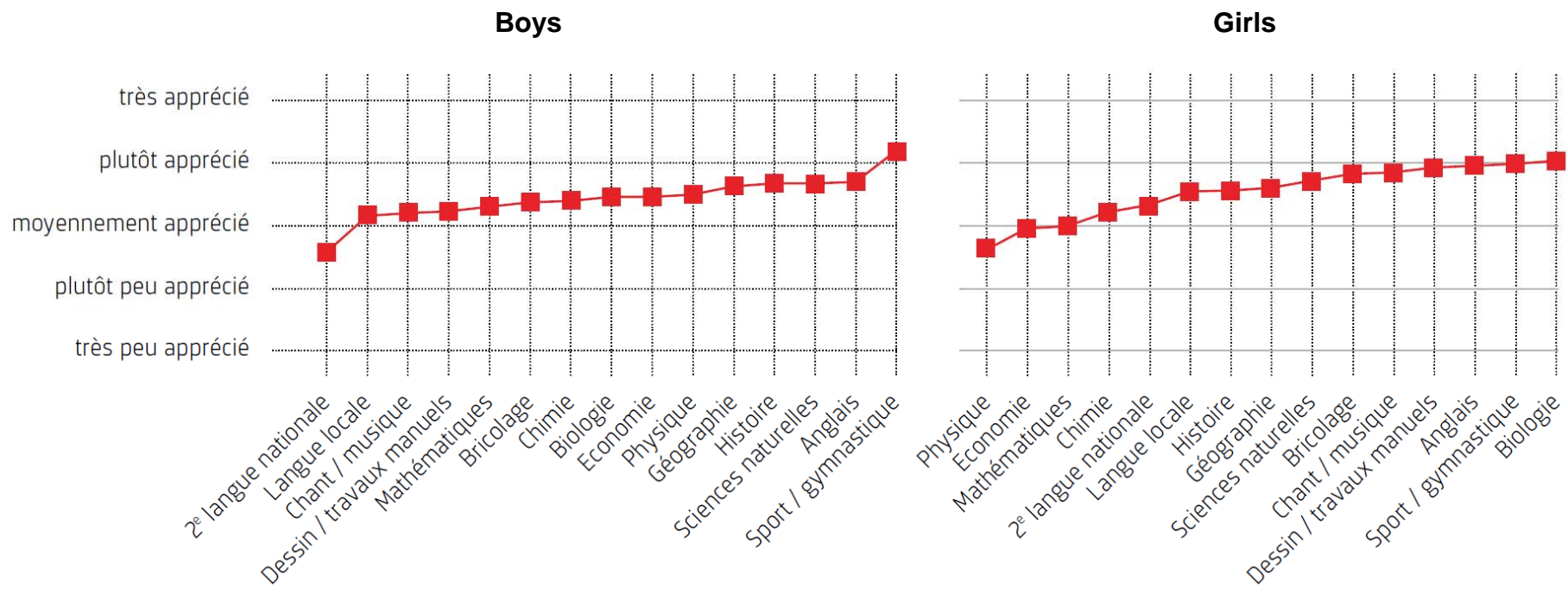
Self-concept concerning technology



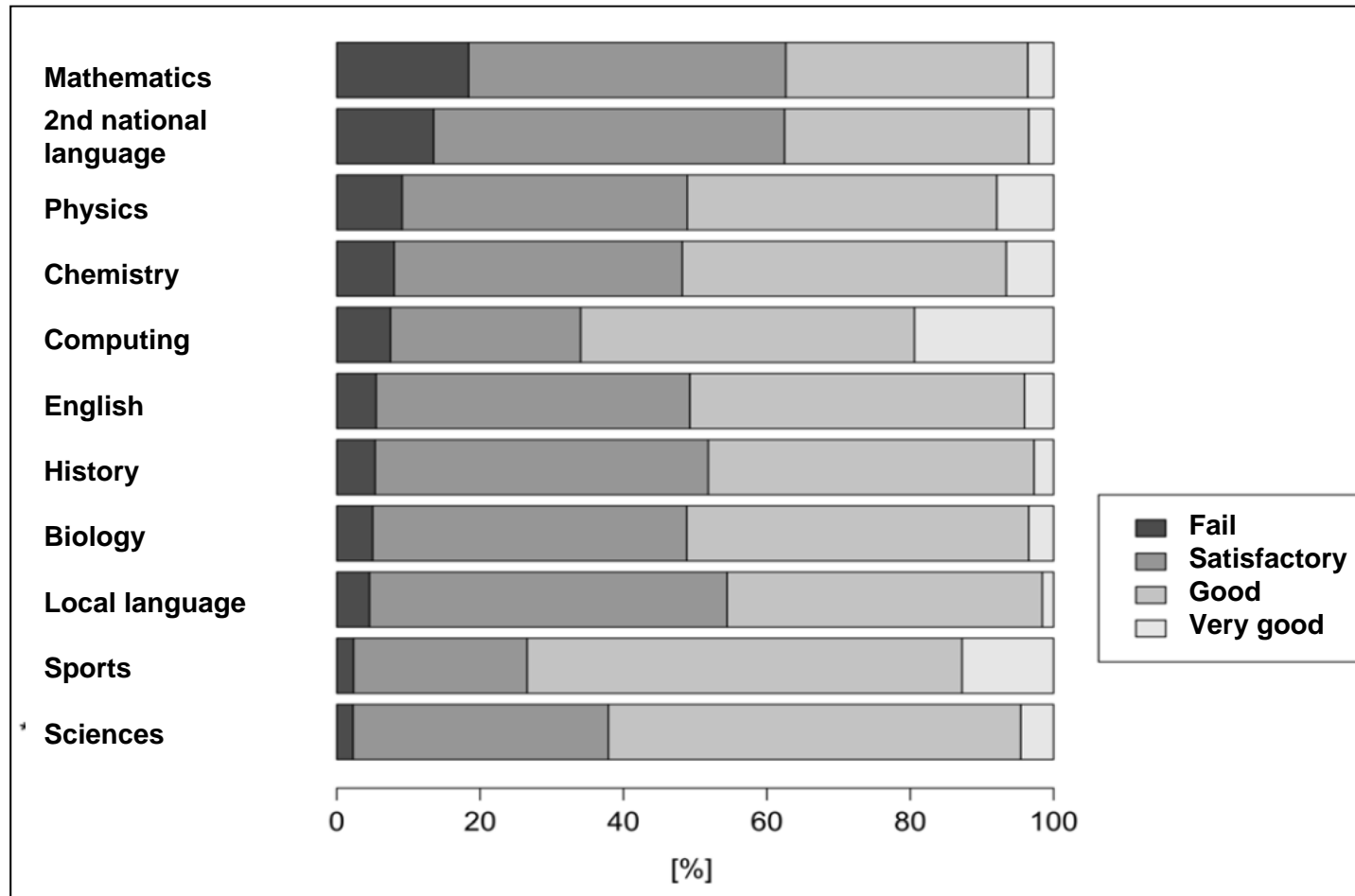
Boys and girls who were encouraged in technology have a higher self-concept than those who received little encouragement.

Girls need to be encouraged much more to achieve the same high level of identity.

Popularity of school subjects among grammar school pupils



Secondary school marks



29. Quelle importance accordes-tu aux aspects suivants pour le choix de ton métier?

	extrême-ment important	très important	plutôt important	peu important	pas du tout important
un emploi sûr	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
des tâches variées	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
la possibilité de faire carrière	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
un très bon revenu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
un prestige important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
un rapport étroit à la pratique	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
la possibilité d'exercer ses propres talents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
travailler de manière autonome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
avoir de nombreux contacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
développer de nouvelles choses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
contribuer au bien-être général	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
travailler en équipe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
la possibilité de concilier métier et vie familiale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
découvrir de nouveaux pays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
toujours apprendre de nouvelles choses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Summary/recommendations (1/2)

Higher self-concept concerning technology particularly among girls

- Greater encouragement in family, childcare and school
- Make physics lessons more appealing to girls
- Investigate marking in mathematics

Summary/recommendations (2/2)

More attractive studies and careers for women

- Interdisciplinary studies
Examples: 'iCompetence' (Computing – Design – Business), 'Health and Technology'
- Corporate culture, corporate structures and working conditions for intrinsically motivated people
- Differentiated picture of studies and careers in engineering

Next steps for the SATW

Focus on encouraging children's and youngsters' talents:

- Strengthening out-of-classroom learning locations
- Raising parents' awareness

Thank you very much!

www.mint-nachwuchsbarometer.ch

www.satw.ch/barometre-releve-MINT