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In the Search for Reasons Behind Students Escaping from Mathematics

Mathematics, unlike any other school subject, evokes conflicting emotions and contradictory attitudes – from the "Queen of Sciences" to widespread acceptance for mathematical ignorance. The reaction to mathematics in society seems to be based on stereotypes that "mathematicians" are opposed to "humanists". The process of studying mathematics requires systematic practice and patience, as mathematical knowledge is of cumulative nature. The promise of awards, such as a good job in the future, and the threat of the obligatory matriculation exam turn out to be insufficient.

In the case of mathematical education we can observe a process of abandoning mathematics by a part of the students who start to consider themselves "humanists". It causes serious decisions about their profile of education – e.g. class profile. This decision has numerous consequences, as it may narrow down possible paths of future education and career, finally resulting in employment and income inequalities. This phenomenon can be named "mathematical exclusion".

In my presentation I intend to show the most important elements of the image of mathematics and compare how they are regarded by students, teachers and parents. I intend to show the sources of the abandonment of mathematics in the negative attitudes towards mathematics and a specific perception of the usability of mathematical knowledge in a short and long time-perspective. I will refer to selected results of two studies on Polish students – qualitative (2010), and quantitative (2011, survey on students (N=3169), also including a sample of teachersand parents).

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