Ewa Swoboda

“Transgressions” of a didactical problem concerning geometric reasoning. From the researcher’s workshop.

Didactics of mathematics as a scientific discipline is transgressive – it is rooted in mathematics, though it exceeds the cognitive limitations related to the practice of mathematics itself. It enters into other areas of research and interprets one's results from different perspectives.

In my presentation I will show examples from my own research – how, while building a theory concerning teaching geometry, I support my findings with data from other scientific areas. I will show how findings from history and philosophy of mathematics, neuroscience, physics and psychology affect my explanations of the phenomena observed during the study of dynamic geometric reasoning.

Keywords: geometrical reasoning, movement, rotation