

46. Partová Edita

Diagnostics and the development of geometric knowledge through a variety of constructing tools

Geometry is the oldest area of mathematics that has been systematically elaborated theory also applied in practice. In school education students learn geometry over abstract definition, therefore we can find underachievement of their understanding of geometrical concepts and constructions. During the preparation of teachers of primary education, we seek ways to deepen and widen basic knowledge of geometry. We used it in addition to the classic construction tools also alternative devices, including the paper folding, dynamic geometry software and objects of everyday life eg. pins and string. Like paintings drawn in the sand, hand-painted and the paint program created image requires different knowledge creator, it is similar with geometric design alternative devices. The paper gave the example of the use of those devices and analyzes their advantages in understanding geometric knowledge.