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**Communication in mathematics lessons.**

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Summary: Communication is one of the famous people's cultural techniques. It exists in several kinds. And oral outcomes could be created in different ways and kinds, too. There are outcomes with descriptive character, but also other with initiative or inventive character. The both last are directed for initializing comments and reactions by the participants of communication. The first does not do so. But these various aspects are not found in mathematics lessons in generality. Pupils' oral outcomes are often rarely and reduced of single words or fragments of sentences. Communication with a descriptive character has a majority all over the complete processes of communication in mathematics teaching. That is the reason to think about possibilities for intensification processes of communication in mathematics teaching directed especially to processes with initiative or inventive character. One important part of mathematics lessons is the process of mathematical modelling. It is a very complex process and pupils should be able for communication with other pupils if they like to solve the complete process successful. In the report the descriptive, initiative and inventive aspects of communication shall be described with the help of examples. Also potencies for communication shall be shown for the process of mathematical modelling on the one hand. Possibilities for teaching mathematical modelling in lessons of mathematics with the aim of initializing processes of communication between pupils shall be described on the other hand. The potencies shall be focused on special kinds of working as heuristic-experimental working, object oriented modelling and using analogies especially for geometrical contents and backgrounds.

*Classification:* C50

*Keywords:* communication; teaching; mathematical modelling