

**Topic:** Methods of Activating Students in Education of Chemistry

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**Abstract**

This dissertation work aims at teaching methods in the subject of chemistry and it concentrates mainly on methods with quite a high proportion of activation of pupils. The benefits and disadvantages of activating teaching methods, possible criteria for their choice, conditions for their putting into practice and similar, are described.

Later, the work focuses on four chosen activating methods, namely brainstorming methods, project method, didactic games and work with a fictional and another type of a text which is applied here into natural science teaching, namely into chemistry teaching. A story with a chemical experiment can serve as an example.

The research part contains a case study of putting project teaching methods into practice which includes a record and analysis of the condition and of the problem connected with its implementation, as well as the initiation of the project with the help of brainstorming methods. Participation observing, questionnaires, mini polls and discussions were used in our case study. Altogether 184 second year students for the teaching profession of the Pedagogical Faculty of Hradec Králové University took part in the research. On the basis of the results of the research and the realization of the mini project on the chromatography theme itself, the conclusion, that the work on the project brings many prevailing positives despite its imperfections and problems, and that is both for students and teachers, was made. As was verified, the evaluation of students is the most problematic in the whole project. Participation observations and discussions were used during the course of brainstorming methods realization. On the basis of the participation observation results the conclusion that both brainstorming methods were proved as a suitable “springboard” for a pupil’s own choice of a particular way of the project was made. It will serve as motivation at the same time as well.

The work also suggests already made and verified teaching materials (preparations and suggestions) for work of a teacher in the chemistry teaching (didactic games and work with fictional and another type of a text).

**Key words:** activating teaching methods in chemistry, brainstorming, brainwriting, didactic games, chromatography, work with text, project teaching method