

# Innovative strategies for the assessment of geology in secondary education.

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## *Abstract*

Evaluation in Slovakia is currently a frequent topic of discussions, which are focused on the unfairness of marking and its negative impact on the progress of students in education. Students' assessment is mainly focused on summative assessment. In contrast, formative assessment is a process aimed at frequent and interactive assessment of students' progress and their understanding of the subject matter. (OECD, 2019). This is a statement of what level the student is currently at and what he has to do in order to get to a higher level. As part of the research, we implemented 6 formative assessment tools in the teaching of geology in the 9th grade at two elementary schools. 98 students participated in the research. We used: concept map, prediction card, exit ticket, INSERT strategy minute ticket and self-evaluation card.

When using the prediction card, we observed an increased interest in explaining a new topic. The students carefully followed the entire course of the lesson in order to be able to mark the statements correctly. With the INSERT strategy, we obtained very valuable feedback about each student's approach to the subject matter, to their knowledge, but also to the areas that interest them in the given topic. A suitable tool for developing conceptual understanding is a concept map, which can be adapted to any curriculum. The exit ticket helps students remember the most important parts of the curriculum, which they can then connect with other information. As stated by the authors (Harris & Brown, 2013; Gordon, 2015; Hattie & Clarke, 2018), the teacher's communication with the student, a positive approach to each individual, the creation of a favorable working atmosphere that supports cooperation between students and the awareness of the teacher's position as a coordinator are important in the learning process.

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## *Keywords*

geology, assessment, innovative strategies