

Investigations of reflection by prospective teachers, in the frame of „The methods of pedagogical research, and the application of research results in schools” university courses

Summary of PhD thesis

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There is a growing interest in the topic of reflection in pedagogical science, as its relevance has become clear (among researchers and also in the wider public) in the professionalization of teachers during their careers. The frames of the measurement and development are not coherent, the definition and the main elements of the process of reflection has not been totally clarified yet. There are considerable differences between the main approaches, and even in the interpretation of the term in the international literature. We raise the possible connection of reflection activity with problem solving, with the processes of text comprehension and composing, with experimental and transformative learning, metacognition, self-regulating processes and critical thinking. Most of the main relevant Hungarian and international approaches deal with reflection in professional context, but there are elements of the personality-based and skill-based approaches as well. In our reflection model framework, we group the basic terms and pedagogical interpretations (reflective thinking, self-reflection, professional reflection, reflection competence, reflection literacy) to a wider, context independent group, to a smaller, context-dependent group, and to their intersection.

We present seven sub-studies, which are related to the „The methods of pedagogical research, and the application of research results in schools” university course. The analyses were carried out among prospective teachers (participants of the course) with the following aims: a) to investigate the prospective teachers’ interpretation of reflection, based on their own answers, b) the assessment of the quality of their reflective thinking, expressed in oral and written form, c) to investigate their context-independent self-reflection, and d) their opinion about the course and the development of reflection. In *the first three studies*, we formulated their definition of reflection, based on a content analysis of questionnaires, filled at the beginning and at the end of the university semester. We analysed online reflective diaries (also at the beginning and end of the semester) in *the 4th study*, based on three different approaches for levels of reflection. *The 5th study* contains the investigation of reflective thoughts about the preliminary teaching episodes at the beginning of the course, and about the modified episodes at the end, through focus group discussions and written interviews. We carried out the Hungarian adaptation of the Rumination-Reflection Questionnaire (RRQ) in *the 6th study* on a small sample and on a sample of statistically adequate size, with different analysis techniques (reliability analysis, exploratory factor analysis, detailed item analysis). *The 7th study* presents the details of a questionnaire study with open- and close-ended questions at the end of the semester, analysed with descriptive statistics and content analysis.

According to the results, the interpretation of reflection by prospective teachers is rather informal at the beginning of the semester, but most of the generic terms refer to a cognitive interpretation of skills. The definitions of reflection have become more complex and well-developed by the end of the semester, moving away from teacher role could be observed. They missed the complex character of the utilization of reflection (on the institutional and social levels), and the aspect of the academic knowledge. There was a growing amount of reflection in oral form, while there was no change in written reflection, during the semester. Rumination and reflection could be observed in similar amount. Students realized the significance of reflection only in the case of some specific activities of the course (e.g. discussion of teaching episodes). Some aspects which could have cause these observations: the characteristics of the course related to reflection, the negative attitude towards reflection or (academic) research in general, the lower level of commitment in reflective text composing. Our investigations can contribute to the empirical research, aimed at the clarification of the reflection construct. We also present the limitations of our approach, and the possible further fields of investigations.