DIAGNOSTIC TEST AND PROFESSIONAL DEVELOPMENT

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Recent research in the learning of negative numbers has shown that, by the end of primary school, pupils reason about whole numbers. This 'already there' skills of pupils should be considered when introducing negative numbers in middle school (Lamb, Bishop, Philipp, Whitacre & Schappelle, 2018). This arises the question of how to disseminate this knowledge to teachers through professional development (PD) programs. The model of meta-didactic transposition is designed to analyze PD programs focused on knowledge for teaching. In this model, the notion of 'boundary object' is a decisive element: it stimulates exchanges on knowledge for teaching and has to be relevant to teaching practice. The use of a diagnostic test in a PD program focused on negative numbers meets the characteristics of the 'boundary object'. For the knowledge acquired through participation in such a PD program to be truly integrated into teaching practice, it is important that teachers internalize this knowledge: teachers have to become aware of the knowledge acquired and to use this knowledge in their practice. However, there is a lack of studies documenting such an internalization (Robutti, 2018). This is the purpose of the research. The research question is: do teachers who have participated in a PD program based on a diagnostic test, feel that they've acquired knowledge and use it in their teaching practice?

From a methodological point of view, a qualitative analysis of a questionnaire submitted to ten teachers from four schools in French-speaking Belgium who participated in a three-day PD program will be done. The questionnaire consists of five open and five closed questions (Likert scale type). The results highlight the teachers 'feeling of having developed their knowledge for teaching and the ability to express how this acquired knowledge guides their actions in their practice. Beyond the experience presented, this paper invites further reflection on the optimal use, in professional development programs, of diagnostic tests.

REFERENCES

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