Abstracts

Monica Ferrari, *Experimentation and educational research as a formative problem: notes on Egle Becchi's contribution*

The essay discusses some aspects of Egle Becchi's contribution to the reflections and actions in the field of experimentation and research in the pedagogical processes as a formative problem rooted in praxis that concerns educators, teachers, researchers and, more generally, all those who have responsibility for the quality of educational contexts. Starting from the analysis of some texts that shaped scientific debates in Italy during the 1980s, the essay retraces publications and studies related to specific experiences of research-training grafted into particular epistemological problems, key terms and heuristic constructs.

Keywords: experimentation and educational research, research-training, analysis of educational processes and projects, training of educational professionals, formative evaluation of educational contexts.

Elisa Truffelli, Giorgio Asquini, *Conceptions of assessment and learning in primary school mathematics teachers*

The paper presents an in-depth analysis of the data of a questionnaire administered to 526 primary school mathematics teachers. The questionnaire investigates the beliefs and statements in relation to the INVALSI Tests, in order to identify possible effects on teaching-learning in mathematics.

The in-depth study verifies the correlations between two validated scales (DOTIDID, Talent Ideology, and VALFOR, Formative Assessment) and some variables of the questionnaire related to personal data, teachers' beliefs regarding the knowledge and skills investigated by the INVALSI Test and

mathematics teaching and learning practices in the classroom that include the use of INVALSI items.

The significance of the correlations with the two scales is noted for different aspects, with a clear difference between teachers who believe in formative assessment (oriented to didactic planning) and those who consider mathematics as an innate talent (oriented to simple training to pass the tests). The possible impacts for in-service teacher training courses on assessment issues and the correct use of INVALSI Tests are discussed.

Keywords: INVALSI Test, Primary School, Formative Assessment, Mathematics, Teacher Training.

Alessandra Boscolo, *Body and movement in Mathematics Education. Paradigms and contexts of learning in Italy and Australia*

The implementation of educational innovations and research findings is significantly influenced by cultural and contextual factors. In this paper, we will present a study carried out in Italy and Australia on the introduction at school of Mathematics active, bodily experience learning activities. Comparing two different teaching cultures, we revealed the presence of specific contextual features and cross-cultural characteristics, which can lead to a better understanding of those activities and their possible implementation. Thanks to in-depth interviews of a number of experts in Mathematics education in both countries, it was possible to observe emerging differences in how those activities are conceived and could be declined in school practice in the two different contexts. Some cultural dissimilarities stemming from the Mathematics and Mathematics education cultural traditions of the two states under consideration, which also figured in their educational policies, are also discussed.

Keywords: laboratorio di matematica, enactive learning, hands-on mathematics, implementation, embodied cognition.

Gabriella Agrusti, *Inferential processes and reading comprehension in civic and citizenship education*

Reading comprehension is not only a prerequisite for civic and citizenship education, useful as it might be, for example, for the metacognitive domain or for teaching-learning a disciplinary subject. Knowing how to adequately use a plurality of strategies to understand a text represents both the starting and ending point of many teaching and assessment strategies in CCE. Starting with an analysis of the framework of the IEA-ICCS 2016, the

article aims to consider whether and to what extent skills related to reading comprehension are involved in the resolution of the tests used to measure the different domains assessed in the study. Specifically, the inferential pathways that respondents may have put in place in solving the tests, will be analysed. The pedagogical and evaluative implications that follow from this analysis are then presented.

Keywords: civic and citizenship education, reading comprehension, inference, IEA ICCS 2016, teaching strategy.

Angela Piu, ***In search of the key information in a narrative text. An exploratory primary school study***

The article presents a mixed-method pilot study designed to examine the didactic functioning of a learning unit for primary students that comprised a simulation game and class discussion focused on identifying the key information in a narrative text.

The research was conducted in May 2021 with 27 nine- to ten-year-olds attending "Ottavio Jacquemet" primary school in Verrés, Aosta (Italy).

Comparison of the participants' scores on tests administered both before and after the educational intervention indicated that significant gains had taken place (pre-test: $M = 4.2$ $SD = 0.9$; post-test: $M = 5.4$; $SD = 0.6$ at $p < 0.05$).

Analysis of the dialogue between the teacher-moderator and the student group suggested that the children had been stimulated to identify the key information within a meaning-building process based on: identifying textual cues; connecting and integrating the various items of information contained in the text; and revisiting any erroneous understandings reflected in the video recordings and written materials produced during the simulation game.

Keywords: summary, simulation games, lesson, case study, primary school.