

Andrea Ciani, Elisa Guasconi, Andrea Maffia, Elena Pacetti, Alessandra Rosa, *VideoMAT: a research into the potential of video analysis for the initial training of teachers in the field of mathematics education*

Video analysis as a tool for teacher education and professional development is the focus of an extensive international literature. Findings of research on this topic show, also with particular reference to mathematics teaching, that video analysis can foster the development of specific skills related to the construct of “teacher noticing”. Based on these premises, the paper presents the methodology and some results of an empirical research aimed at exploring the effects of the use of video analysis within an integrated workshop on “Teaching Innovation and Educational Technologies” and “Mathematics Teaching”, designed and implemented by the research group during the academic year 2023/24 in the Degree Program in Primary Teacher Education at the University of Bologna. The results examined highlight the potential of video analysis to promote in future teachers skills of analysis and reflection on teaching practices useful to support their continuous improvement.

Keywords: video analysis, teacher noticing, teacher education, mathematics teaching, kindergarten and primary school.

Delfín Ortega-Sánchez, Carlos Pérez González, *Development and psychometric validation of the TC-CIS Scale for measuring self-perceived teaching competencies in the instruction of controversial issues*

This study presents the development and psychometric validation of the Teaching Competencies in Controversial Issues Instruction Scale (TC-CIS), designed to measure perceived self-efficacy and institutional support in the

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didactic treatment of controversial issues. A cross-sectional instrumental design was applied to a sample of 684 Spanish social and experimental sciences teachers. Following an item development process based on a literature review and expert judgment ($B_N^W \geq 0.95$; $AC2 \geq 0.95$), the 10-item scale underwent Confirmatory Factor Analysis. The resulting bifactorial model demonstrated an excellent fit ($\chi^2/df = 1.15$; $CFI = 0.998$; $TLI = 0.997$; $RMSEA = 0.015$; $SRMR = 0.018$), with factor loadings ranging from 0.79 to 0.87 and a low correlation between factors ($r = 0.02$). Internal reliability was high ($\alpha_{total} = .86$; $\omega = .86$; $FC = .96$), and convergent validity was satisfactory ($AVE \geq .67$). Moreover, configural, metric, scalar, and strict invariance were confirmed across gender, age, origin, educational stage, and prior training ($\Delta CFI \leq 0.01$). However, predictive validity analysis indicated a limited discriminatory capacity regarding teachers' formative intention ($AUC = 0.572$). It can be concluded that the Teaching Competencies in Controversial Issues Instruction Scale (TC-CIS) provides a brief, robust, and culturally stable measure of teaching competencies for addressing sensitive or controversial issues in Social and Experimental Sciences classrooms, although its predictive power needs further specification and its applicability in international contexts should be explored.

Keywords: teaching competencies, controversial issues, psychometric validation, pedagogical self-efficacy, Social and Experimental Sciences education.

Amparo Jiménez Vivas, Sandra Liliana Medina Cárdenas, Francesca Fioretti, Gabriella Agrusti, *Teaching excellence. An exploratory study in Spain and Italy*

The study investigates the perceptions of teachers in Spain and Italy concerning their practices associated with teaching excellence. Grounded in recent theoretical frameworks on teaching professional competence, the research adopts an exploratory cross-national design to analyze excellence in everyday teaching. A total of 235 teachers from both countries participated in the study by completing a structured questionnaire composed of a validated scale measuring teaching excellence. Statistical analyses, including descriptive statistics, t-tests, and exploratory factor analysis, were used to compare the results across national contexts. The findings reveal a strong shared commitment among teachers to participatory and reflective teaching practices, with notable differences in dimensions such as pedagogical innovation and subject-matter expertise. The study concludes by emphasizing the importance of designing both initial and in-service teacher education

programs that support reflective practices and strengthen professional development pathways.

Keywords: teachers, teaching excellence, democratic teaching beliefs, professional development, teaching practices.

Valeria Damiani, *The whole-school approach to civic and citizenship education: results of a multi-perspective case study on participation and relationships at class and school level*

The PRIN project “The school as a democratic learning environment: promoting civic and citizenship education through the whole-school approach” aimed to analyse the different dimensions of the whole-school approach at classroom, school levels and in relation with the local community. This paper presents the results concerning two WSA dimensions, namely student participation in class and at school and teacher-student relations (the classroom climate). These dimensions were investigated through a case study conducted in one primary and lower secondary school in Rome. The research adopted different tools such as questionnaires, interviews and focus groups. Data were analysed to show the multi-perspective character of the research, examining in synergy the point of view of the school head, the teacher coordinating civic education at school, the teachers and the students. The analysis of the data made it possible to highlight key practices and implicit assumptions that characterise the dimensions of the WSA relating to participation and classroom climate. Specifically, findings showed a discrepancy between teachers’ perceptions of participation at class and school level, compared to students’ perceptions, and a different way of understanding student involvement by primary and lower secondary school teachers. The contribution closes with some insights on further research and training interventions with schools and teachers.

Keywords: civic and citizenship education, whole-school approach, Italy, primary school, lower secondary school

Maurizio Gentile, Daniele Pasquazi, *Educational poverty and professional development of teachers: an intervention model*

Secondary school appears to be the most suitable educational pathway for reducing differences in student achievement, particularly those resulting from socioeconomic, linguistic, and cultural disadvantages, which, if not effectively addressed, can negatively impact the entire schooling process. Therefore, intervening in teachers’ professional development can have a cri-

tical influence on educational outcomes by reducing student disparities. The article describes an intervention model implemented as part of a PRIN2022 project that aimed to design teaching tools by modeling educational and learning practices experienced in classrooms.

Keywords: educational poverty, inequality, teacher professional development, literacy competence, intervention model.