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How can the prison context change teachers' perspective and practices about mathematic assessment?

Veronica Manzoni¹, Silvia Regola² and Chiara Giberti²

¹ Alma Mater Studiorum University of Bologna, Bologna, Italy; veronica.manzoni@unibo.it;

²University of Modena and Reggio Emilia, Modena, Italy

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Rationale and theoretical framework

Black and Wiliam (2009) use the term 'assessment' to refer to all those practices, involving both teachers and students, that provide information that can be used to modify teaching and learning activities. Assessment can be differentiated by its purposes: formative assessment (FA), or assessment for learning, and summative assessment (SA) or assessment of learning (Black & Wiliam, 2009). Generally, in ordinary Italian classrooms there is a preponderance of SA (Amado & Morselli, 2023); teachers are frequently not aware of the distinction between FA and SA and assess students' learning through written and oral tests which involve a single student called to the blackboard, performing in front of the teacher and peers (Pastore et al., 2019). The role of the context in which the entire learning-teaching process takes place is crucial to better understand teachers' perspectives and practices regarding assessment (Wong et al., 2016). This is particularly true in the multi-complexity of a prison school context, which is characterised by: (i) heterogeneous classes in terms of age (from 14 to 70 years old), socio-cultural and linguistic background, literacy and personal experiences; continue turnover of students (usually up to 10 students); (ii) frequent experiences of failure encountered by students in their educational paths, in particular in mathematics, and (iii) the fact that "evaluation" in the sense of "judgment" permeates any prison setting (Decembrotto & Maffia, 2024). Furthermore, there is a lack of literature on the issue of mathematics education in the prison context and, even more, on the specific issue regarding assessment. We present the preliminary results derived from the "Learning Math in Prison" project (LeMP) with the aim to highlight if and how, the prison context can overturn some of the teachers' perspectives and practices related to assessment in mathematics compared to those of teachers' in ordinary schools.

Data and methods

Data collected during the exploration phase of the LeMP project were qualitatively analysed to shed light on teachers' perspectives on assessment in mathematics. No specific questions on assessment were proposed thus all teachers' reflections emerged spontaneously. We consider data gathered through a digital platform collecting teachers' reflections, a focus group and individual teachers' interviews. The 4 mathematics secondary school teachers involved from 3 Italian prisons had different experiences in the prison context, none of them had a specific training for teaching in prison. All data were coded independently by all three authors considering the components of the FA (Black & Williams, 2009), then questionable cases were shared and discussed.

Preliminary results and further steps

The teachers were aware of frequent students' experiences of failure in their previous school path, especially in mathematics, and they stated that this leads students to low levels of self-efficacy.

Teachers interviewed stated that assessment in prison schools differs from that in ordinary schools. Particularly, two spontaneous overturns of perspectives and practices related to assessment emerged from teachers' comments: (i) FA as almost frequently used with respect to SA; (ii) Oral tests as a practice promoting FA and personal motivation. Although teachers did not explicitly refer to FA, several aspects in their reflections can be identified as FA practices. The prison context and in particular the need to consider the frequent variation in school attendance, the classes' heterogeneity, the frequent turnover of students and their detention conditions, allows teachers to disengage from the logic of grades and led them to personalise the assessment process by considering personal starting point and needs. The data collected also revealed that, in the prison context, the practice of calling a student to the blackboard, as usually teachers do in Italian oral tests, can be a virtuous student-centred practice as far as it is '*an emersive approach [...]in which students want to emerge*' and, as one teacher stated, as one teacher stated, the student recognises himself as effective. Oral tests allow teachers to observe students' understanding and provide them with feedback, serving as implicit assessment and enhancing their self-efficacy in mathematics. These identified overturns are two examples of how spontaneously the prison school context allows mathematics teachers to create a relaxed climate without the anxiety of grades and to promote and personalise assessment based on students' educational path and motivation. These preliminary reflections will be deepened in the next phases of the project: the other aspects of FA might be present in teachers' practices but did not emerge in data collected. Further information related to mathematics assessment practices in the prison context will be collected through the analysis of teachers' learning units design and their implementation.

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