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Teachers' use of *Descriptive Assessment* methods in primary school mathematics education in Iran

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Introduction

Iran has a centralized education system, with national textbooks that are used for every school subject, including mathematics. In this education system, the assessment regulation and educational policy determine what type of student assessment teachers carry out. The latest version of this assessment regulation in primary school is called *Descriptive Assessment*. This is an approach for evaluating students' achievement by collecting and documenting evidence regarding their learning and performance. Teachers can collect this evidence through different methods including observations of students during the classes, interviews, students' portfolios, performance tasks, and various kinds of tests (Ministry of Education [MoE] & Organization for Educational Research and Planning [OERP], 2011; Supreme Council for Education [SCE], 2009). In this poster, we investigate the research question: *To what degree have the suggested assessment methods from the Descriptive Assessment regulations been implemented in the classroom practice of Iranian primary mathematics teachers?*

Method

For this we performed a multiple case study of which we present the first results at CERME11. We provide data on the assessment practice of seven Grade 4 female mathematics teachers (age $M=46$, [min, max] = [38, 54]) in Tehran. These teachers were first contacted by telephone and agreed to participate in this research. The data we used for this case study originated from four sources:

1. The teachers responded to an Iranian version of a questionnaire on teachers' assessment practice in mathematics education (Veldhuis, Van den Heuvel-Panhuizen, Vermeulen, & Eggen, 2013).
2. We interviewed the teachers individually by asking them to explain answers they provided in the questionnaire and to discuss their lesson plan for the lesson that would be observed.
3. The ensuing lesson on the development of first notions of probability was observed and videotaped.
4. We conducted a post-observation interview in which the teachers were asked to reflect on their taught lesson.

In the analyses of these data, we focused on the teachers' use of assessment methods and compared that to their prescribed use in the regulations on *Descriptive Assessment*. In two important documents, the Teacher's Guidance for *Descriptive Assessment* (MoE & OERP, 2011) and the Academic Assessment Regulation for Primary School (SCE, 2009), a variety of assessment methods is suggested such as, observing students in class, asking questions in class, administrating written test, having individual assessment conversation, offering performance tasks and having students working on project. As described in the guidelines, performance tasks are an instrument for measuring students' activity and attempts in practical and observable situations. Performance tasks focus on both students' knowledge and skills. Asking students to write a mathematics problem and its solution is an example of a performance task.

Result and conclusion

Currently, the data of our study have not yet been fully analyzed, therefore in this poster proposal, we only include a description of one assessment method (see Table 1, teachers' use of performance tasks). In the table, the information from the four data sources are combined to show whether teachers reported or showed that they use a particular type of performance task for a particular purpose and with which frequency.

Table 1: Teachers' practices and beliefs about using performance tasks

Performance task		T.1	T.2	T.3	T.4	T.5	T.6	T.7
Type	Designing something	✓		✓	✓	✓		
	Using a tool	✓	✓	✓			✓	✓
	Giving a presentation	✓	✓		✓	✓		✓
	Writing a text			✓	✓	✓	✓	
	Participating in a project							
Purpose	To improve students' learning skill	✓	✓	✓				
	To motivate students	✓						✓
	To involve students in the teaching process		✓		✓			
	To make teaching efficient						✓	
Frequency	More frequently than monthly					✓		✓

We expect to have finalized our analyses before CERME11. So, at the conference we can present the results in full detail and answer the research question.

References

- Ministry of Education (MoE) & Organization for Educational Research and Planning (OERP) (2011). *Teacher's guidance for descriptive assessment*. Tehran: Author [PERSIAN]
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