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Wijaya, Ariyadi; van den Heuvel-Panhuizen, Marja; Doorman, Michiel

Teachers' teaching practices and beliefs regarding context-based tasks and their relation with students' difficulties in solving these tasks.

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Summary: In this study, we investigated teachers' teaching practices and their underlying beliefs regarding context-based tasks to find a possible explanation for students' difficulties with these tasks. The research started by surveying 27 Junior High School teachers from seven schools in Indonesia through a written questionnaire. Then, to further examine teachers' teaching practices related to context-based tasks, four teachers were observed and video recorded in two mathematics lessons in which they were asked to deal with context-based tasks. The questionnaire data revealed that the teachers had a tendency toward a view on teaching and learning mathematics which includes encouraging students to be actively involved in solving problems in various contexts. Although this finding suggests that the teachers may offer opportunities to learn context-based tasks to students, the questionnaire data also revealed that the teachers saw context-based tasks as plain word problems. Furthermore, the observations disclosed that their teaching was mainly teacher-centered and directive, which is not considered to be supportive for learning to solve context-based tasks. Combining the findings of this study with the results from our earlier study on Indonesian students' errors when solving context-based tasks, we found a relationship between how Indonesian teachers teach context-based tasks and the errors Indonesian students make in solving these tasks. These findings support the conclusion that insufficient opportunity-to-learn to solve context-based tasks offered by teachers is a possible explanation for students' difficulties in solving these tasks.

Classification: C29 D40 D73 F93 M13

Keywords: context-based tasks; students' difficulties; teachers' beliefs; teachers' teaching practices

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