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Evaluating views of lecturers on the consistency of teaching content with teaching approach: traditional versus reform calculus.

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Summary: This study aims to evaluate the consistency of teaching content with teaching approaches in calculus on the basis of lecturers' views. In this sense, the structures of the examples given in two commonly used calculus textbooks, both in traditional and reform classrooms, are compared. The content analysis findings show that the examples in both textbooks are presented in a rather formal language and generally highlight procedural knowledge. And, even though the examples in the reform book chosen are structured using multiple representations, only a small number of them incorporated the usage of instructional technology. The lecturers' views which were gathered indicated that, although, on the one hand, the example structures of the traditional textbook largely overlapped with the characteristics of the traditional approach, the example structures of the reform textbook, on the other hand, were found to be inconsistent with the characteristics of the reform approach, especially with regard to its environment and knowledge components. At the end of the paper, some suggestions for further studies are provided for book authors and researchers.

Classification: D30 D40 I10

Keywords: calculus textbooks; traditional approach; reform approach; exemplification

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