
Revisão de livros

Revisao de História de Investigações Matemáticas. João Pedro da Ponte, Hélia Oliveira, Maria Helena Cunha e Maria Irene Segurado. Lisboa: IIE. 1998.

Revisto por Peter Gates
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I found this book fascinating. It has been written by four experienced mathematics educators and researchers who have been responsible for many innovative projects and programmes in Portugal. The book is a report of a research project “Matemática para Todos – Investigações na sala de aula”. The purpose of this project was not only to look at the nature of mathematics teaching and learning, but also to look into the problems teachers face when trying to change, and how we might make this process of change easier.

The project based itself around four main thematic questions: (1) what is the nature of mathematics? (2) What is the significance of social interaction in the learning process? (3) How do we best manage curriculum change? And (4) what role can narrative analysis play in researching teaching and learning?

This is not merely a book about mathematics teaching; it is a book about improving our understanding of mathematics teaching. This is because it is located right at the heart of the process – in the classroom. It is interesting that the enjoyment of listening to stories is a cross-cultural phenomenon. We seem to like to know the details of what others do – especially when these stories can tell us something about ourselves or about how others engage in the sorts of things we do ourselves. This book is based on the telling of a number of ‘stories’ about mathematics lessons. These stories however are not just ‘photo-novellas’ of the mundane everyday life of the teacher. They are actually narrative biographies of episodes from various classrooms where teachers are working to change the nature of mathematics teaching by offering activities where pupils are offered opportunities to pose questions and problems. Rather than simply solve the problems of others.

After introducing the project which resulted in this book, the authors — João Pedro da Ponte, Hélia Oliveira, Maria Helena Cunha and Maria Irene Segurado — discuss the issue of investigations, and the use of narrative methods in educational

research. These are brief but very readable chapters. The heart of the book however is the main section: “Histórias”, ten stories of mathematical investigations. I found the stories enthralling in themselves, because they gave me insights not only into teachers’ classrooms, but also into their thinking. However the research team have provided a commentary on elements of the teachers knowledge as annotations to the main stories. This gave me a further insight into the minds of the researchers that I found kept forcing me back to the stories trying to resolve questions that had appeared in my head. The book closes with a section on the implications, conclusion and reflections on the stories.

There are two particularly interesting elements of this book for me and which are highlighted throughout — the role of the teacher in introducing pupils to investigative methods, and the significance of social interaction in the classroom. I think these have been somewhat overlooked in previous years and are now just coming more to the surface. This book therefore helps that surfacing.

I would recommend this short (142 pages) book to researchers, teachers and anyone interested in knowing more about the life of the classroom. Because what comes through clearly for me in this book — is that there is life in mathematics classrooms — at least in Portugal!

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Revisao de Investigação em Educação Matemática: Implicações curriculares. João Pedro da Ponte, José Manuel Matos e Paulo Abrantes. Lisboa: IIE. 1998.

Revisto por José Carrillo
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Este libro está escrito con el propósito de ser útil para la práctica del profesor de matemáticas, la elaboración del currículo en el futuro y la correspondiente implementación educativa. Hacia todo ello enfoca las contribuciones de la investigación educativa en Portugal. Sus autores comprenden la necesidad de vincular las decisiones políticas en educación con la práctica educativa, para lo que aportan resultados basados en múltiples investigaciones en educación matemática