

Abstract

The purpose of this study was to gain an insight into the attitudes of primary school teachers towards the constructivist approach to the teaching of mathematical problem-solving. A mixed methods approach was used with quantitative data being gathered through a teacher questionnaire and qualitative data being gathered through interviews with a combination of principals, deputy principals and teachers. The study took place in three urban primary schools in the Cork area and the sample size was thirty-six. The primary aim of the research was to determine the main challenges associated with problem-solving, both for teachers and students. It was also hoped that the most effective strategies for teaching problem-solving could be identified, as well as ways of improving the teaching of problem-solving.

The results of the study indicated that teachers generally possess positive attitudes towards the teaching of problem-solving. A challenge for teachers when teaching problem-solving, however, was enabling their students to devise their own strategies for solving problems, an important element of constructivism. Many of the difficulties faced by students surround the language of mathematical problems. Reading problems and withdrawing the relevant information were identified by teachers as challenges for their students. Respondents displayed good use of constructivist approaches in their teaching of problem-solving. Use of concrete materials and reflecting on students answers were emphasised by teachers as important classroom tasks. A cause for concern arising from this study is that almost half of respondents felt that their initial teacher training prepared them poorly to teach problem-solving. This led to a strong recommendation that teacher training institutes examine their mathematics education programmes.