Historical Overview of Studies on Generalisation in Mathematics Education

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Abstract

Purpose- The aim of this paper is to provide a historical overview of studies on generalisation in mathematics education for future research. Because, generalisation is one of the most important mathematical thinking processes and the essence of mathematics. Thus, there are many studies related with generalisation.

Method- This study is survey article. Our hypothetical theoretical framework is "whose generalisation becomes the object of each study" and "where is the position of the researcher and his/her object(s) of analysis (that is, someone who is generalising)".

Findings- Considering this framework, we propose the following four periods: "human generalisation in mathematics," "human generalisation in mathematics education," "students' generalisation in mathematics education," and "learners' generalisation in education and/or interdisciplinarity."

Significance- There are various studies that is related with generalisation in discipline of mathematics education. To regard with its long history and tradition, sometimes it makes our perplexity when we want to investigate students' generalisation; because, their methodology, background theory, focus and so on are very different from each other.

Keywords: Generalisation, Mathematics education, Mathematical reasoning.