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Students' formalising process of the limit concept.

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Summary: The concept of limit is the foundation for many concepts such as the derivative and the integral in advanced mathematics. The limit concept has been a research topic in mathematics education for years and in the literature it is a broadly accepted fact that the limit is a difficult notion for most students. The study presented in this article is a qualitatively designed study and the research design is a teaching experiment. An academic semester teaching experiment was conducted in the course of Analysis I in the Mathematics Education Program in an Education Faculty in order to investigate students' formalising process of the limit concept. The participants of the study were selected from the 28 students taking the one semester class covering the content of limit, continuity, derivative, and integral concepts for the single variable functions. Seven participants were selected on the basis of an open-ended test, developed by the researcher, using the purposive sampling technique. Data for the study were gathered using two clinical interviews. It is concluded that the students' formalisation process of the limit concept can differ from each other. (ERIC)

Classification: I20 C30

Keywords: limit; mathematical concepts; concept formation