

## INVESTIGATION OF PROSPECTIVE MATHEMATICS TEACHERS' CONCEPTUAL STRUCTURE ABOUT LIMIT

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### Abstract

The purpose of this research is to identify prospective mathematics teachers' conceptual structures about "Limit" which is the important topic of the mathematics. Participants of the research study were 152 prospective mathematics teachers' studying in one of the public university. The Free Word Association Test was used as a measurement tool. The 'Limit' stimulus word was presented to prospective teachers through the Free Word Association Test. The data collected was recorded in frequency table, and conceptual networks that present prospective teacher's conceptual structures about limit key concept was drawn using a "cut-off point" technique regarding the frequency table. Based on the research findings, a total of 87 words were collected and 18 categories was derived from limit key concept. "Boundedness , Convergence, Indeterminate, Continuity, **Infinity**, **Derivative**, Function, Right- Left Limit" categories which were associated with 60 and higher frequency categories were more remarkable ones. As a result, it is recommended to conduct further research by stating mathematical terms to reveal conceptual structures in students' minds.

**Keywords:** Concept, Conceptual Structure, Word Association Test, Limit.