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Meanings of the concept of finite limit of a function at a point: background and results.

Ubuz, Behiye (ed.) et al., CERME 8. Proceedings of the eighth congress of the European Society of Research in Mathematics Education, Antalya, Turkey, February 6–10, 2013. Ankara: Middle East Technical University (ISBN 978-975-429-315-9). 1477-1486 (2013).

Summary: We present a description of previous work carried out by the authors on the general issue of designing and implementing a didactical planning for Spanish students from non-compulsory secondary education, 16–17 years old. The current research has as its aim to describe the meanings that students associate to specific terms from the language, such as, “to approach,” “to tend,” “to reach,” “to exceed,” and “to converge.” Prior to the study, we reviewed the mathematical use of these terms and we contrast this with the colloquial use of the terms. From the semi-structured interviews used to gather information, we provide an analysis of the written data. It is important to highlight that students have contributed with a variety of meanings, in addition to those from the previous review.

Classification: I24 C54 E44

Keywords: mathematical concepts; finite limit of a function at a point; specific terms; language