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**Riemann integral: didactical mediation with GeoGebra software articulated with usual practices with 1st year graduate students in mathematics teaching.**

Amado, Nélia (ed.) et al., Proceedings of the 12th international conference on technology in mathematics teaching, ICTMT 12. Faro: University of Algarve (ISBN 978-989-8472-68-7). 464-472 (2015).

Summary: The results of an experimental teaching aiming to answer the question: how effective is a didactic mediation of concepts on Riemann integral, using Geogebra software, articulated with usual practices, by students, based on their mobilized and available retrospective knowledge? The goal was to experiment a teaching and learning modes of the Riemann integral of real functions of a real variable, using Geogebra software as instrument, articulated with usual practices. The study was based in Anthropological Theory of the Didactic – TAD by Chevallard and theory of instrumentation by Rabardel. It was a qualitative study in the form of case study, having appealed to some aspects of didactic engineering: design and a priori analysis of tasks; a posterior analysis and internal validation. The experiment showed that the blended computer and usual practices processes promote construction of knowledge by students to the Riemann integral.

*Classification:* I55 U75

*Keywords:* didactical mediation; Riemann integral; anthropological theory of the didactic; theory of instrumentation/instrumentalization