

ZMATH 2016d.00839

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Confidence trick: the interpretation of confidence intervals.

Can. J. Sci. Math. Technol. Educ. 14, No. 1, 23-34 (2014).

Summary: The frequent misinterpretation of the nature of confidence intervals by students has been well documented. This article examines the problem as an aspect of the learning of mathematical definitions and considers the tension between parroting mathematically rigorous, but essentially uninternalized, statements on the one hand and expressing imperfect but developing understandings on the other. A small-scale study among schoolteachers sought comments on four definitions expressing differing understandings of confidence intervals, and these are examined and discussed. The article concludes that some student wordings could be regarded as less inaccurate than they might seem at first sight and presents a case for accepting a wider range of more intuitive understandings as a work in progress

Classification: K70

Keywords: confidence intervals; statistics

doi:10.1080/14926156.2014.874615