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**Explaining the law of large numbers.**

Pereira-Mendoza, Lionel et al., Proceedings of the fifth international conference on teaching statistics (5.ICOTS). Vol. 2. , (ISBN 90-73592-14-3). 731-736 (1999).

Summary: The study examined 40 students' explanations of a statement referring to decreases in variance with sample size. Content analysis coded 22 explanation features. Four groups of subjects were defined. Five undergraduates were unsure of the relationship described in the statement. A second group reversed the statement; a diversity-based view of within sample variability was proposed to explain their responses. Those with the best understanding gave multiple meanings to the statement. The final group described variance as decreasing with sample size – partly explained by changes in a distribution's centre or extremes. A diversity of interpretations of the statement was thus identified; the implications for good teaching of the LLN are discussed.

*Classification:* K40