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**Interplay between semiotic means of objectification used in probability experiments.**

Tso, Tai-Yih (ed.), Proceedings of the 36th conference of the International Group for the Psychology of Mathematics Education “Opportunities to learn in mathematics education”, PME 36, Taipei, Taiwan, July 18–22, 2012, Vol. 3. Taipei: National Taiwan Normal University. 321-328 (2012).

Summary: Probability has almost vanished from curricula internationally. This article seeks to address the reasons for probability vanishing from curricula by investigating 9th grade students’ emerging probabilistic thinking while working with a TinkerPlots combinatorial problem. In this article attention is paid to the interplay of the semiotic means of objectification involved in probability experiment. Results from this research study with grade 9 students suggest that the interaction between semiotic means of objectification help students to modify, or refine their probabilistic thinking about combinatorial problems.

*Classification:* K53 K23 D43

*Keywords:* probability; probabilistic thinking; semiotic means of objectification; combinatorial problems