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Gail F Burrill*, 12155 W Luther Ave, Hales Corners, WI 53130. *Developing Concept Images
Core Statistical Ideas: The Role of Interactive Dynamic Technology*. Preliminary report.

Coming to understand a mathematical or statistical concept involves creating a mental image of that concept. A technology-leveraged approach can help students develop such a mental image and embed that image in a framework for organizing basic statistical ideas. Carefully designed applets where students take a meaningful action and observe and reflect on the consequences can help students develop dynamic mental images of central concepts such as distribution, variability or sampling with an emphasis on the use of simulation techniques. In particular, research has identified typical misconceptions students have related to core statistical concepts, and the applets and accompanying materials focus on helping students confront these misconceptions by creating visual interactive representations (mini “video clips”). The discussion will describe a research project that investigated how these dynamic interactive applets were used in a course for preservice elementary students to help them build robust concept images of key statistical ideas. (Received September 26, 2017)