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Speiser, Robert; Walter, Charles N.; Maher, Carolyn A.

Representing change.

van den Heuvel-Panhuizen, Marja, Proceedings of the 25th conference of the International Group for the Psychology of Mathematics Education. Vol. 4. , (ISBN 90-74684-16-5). 209-216 (2001).

We report on data from a summer institute for high-school students, part of a 13-year longitudinal study of the development of mathematical ideas. The students were invited to discuss the motion of a cat, given 24 time-lapse photographs taken in less than a second. As students explain, justify, and convince others, a re-examination of previous explorations, including prior reasoning, is often triggered. The student data are analyzed through detailed examination of how students work with a variety of representations in order to build arguments, through extended social interaction. (orig.)

Classification: C33