

ZMATH 1999c.01966

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Children's work with data. Modeling in mathematics and science collaborative.

,. 194 p. (1997).

When the first graders in Angie Putz's class wanted the school cafeteria to offer a soup other than tomato, they surveyed the students and teachers of their school. The simple question, "What's your favorite soup?" presented the students with data-handling issues faced by researchers in marketing, agriculture, and the sciences: posing productive questions, collecting and recording responses, summarizing and presenting data. Contents: (1) Children's work with data (Using research questions to guide data collection and analysis, Making sense of data, Representing and visualizing data, Summarizing data, Modeling data, Summary, References); (2) Body self-portrait project (Body self-portraits, Goals, Materials/Tools, Duration of the project, Prior knowledge, Procedure prior to constructing data model, Procedure for constructing and testing a model, Revising and testing model, Further directions); (3) Classification models across the grades (Task overview, Mathematics of the task, Benchmarks of student thinking, Multiage first/second grade, Fourth grade, Fifth grade, Possible modifications to the task, Appendix); (4) Graphing (Big ideas about graphs, Graphing in the primary grades, Expanding children's ideas about graphs, Graphing activities, Conclusions, References); (5) How children organize and understand data (Fruit flies, How do you wake up?, What do you like to play/pretend?, What is your favorite soup?, Summary); (6) How much traffic? (The project: Back to the road, 20/20 hindsight, References); (7) Shadows (Description of project, Preconditions, Process, Development, References).

Classification: K12