1046-H1-1949

Joan Ferrini-Mundy* (jferrini@nsf.gov), National Science Foundation, 4201 Wilson Boulevard, Division of Research on Learning, Room 885.11, Arlington, VA 22230, and Karen Marrongelle, National Science Foundation, 4201 Wilson Boulevard, Room 885, Arlington, VA 22230. Using "real world problems" to guide mathematics learning: Challenges in instructional practice and research.

A discussion of the issues in conducting research about the impact of using real-world problems and contextualized situations as sites for students' learning of mathematical ideas. We will summarize the National Mathematics Advisory Panel's Instructional Practices Task Group report on the use of real world problems in K-8 mathematics instruction, including discussion of how "real world problems" have been defined and used in research and instructional practice. A summary of studies examining the effectiveness of this approach will be provided. We discuss needed research and implications of the findings for informing instructional practice at the K-8 level. We will also comment on related issues for the learning and teaching of undergraduate mathematics and for the preparation and professional development of K-8 teachers of mathematics. (Received September 16, 2008)