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Development of understanding of sampling for statistical literacy.

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Summary: The development of understanding sampling is explored through responses to four items in a longitudinal survey administered to over 3000 students from Grades 3 to 11. Responses are described with reference to a three-tiered framework for statistical literacy, including defining terminology, applying concepts in context, and questioning claims made without proper justification. Within each tier increasing complexity is observed as students respond with single, multiple, and integrated ideas to four different tasks. Implications for mathematics educators of the development of sampling concepts across the years of schooling are discussed.

Classification: K40 K70 C30

Keywords: statistical literacy; longitudinal survey; sampling; three-tiered framework; terminology; developmental model

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