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**Children's wonder how to wander between data and context.**

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Summary: The knowledge and application of the problem context and its relation to data analysis is a key component in the development of students' informal inferential reasoning. This case study analyzes children's emergent understanding of the relationship between the context world and the data world while making informal statistical inferences in an inquiry-based learning environment using TinkerPlots. We focus on two fifth-grade students (aged 11) who participated in the 2010 Connections design experiment in Israel. We observe and analyze their first steps in the two worlds – data and context – in growing samples investigations. They developed gradually and inconsistently an understanding of making informal inferences considering both context and data. They moved from an initial conception of context and data as separate entities to two interconnected and relevant dimensions. We finally discuss this development and what might have supported it.

*Classification:* K43

*Keywords:* data; context; statistical reasoning; growing samples; informal statistical inference; informal inferential reasoning; statistics education

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