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**Inquiry pedagogy to promote emerging proportional reasoning in primary students.**

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Summary: Proportional reasoning as the capacity to compare situations in relative (multiplicative) rather than absolute (additive) terms is an important outcome of primary school mathematics. Research suggests that students tend to see comparative situations in additive rather than multiplicative terms and this thinking can influence their capacity for proportional reasoning in later years. In this paper, excerpts from a classroom case study of a fourth-grade classroom (students aged 9) are presented as they address an inquiry problem that required proportional reasoning. As the inquiry unfolded, students' additive strategies were progressively seen to shift to proportional thinking to enable them to answer the question that guided their inquiry. In wrestling with the challenges they encountered, their emerging proportional reasoning was supported by the inquiry model used to provide a structure, a classroom culture of inquiry and argumentation, and the proportionality embedded in the problem context.

*Classification:* F82

*Keywords:* proportional reasoning; mathematical inquiry; classroom argumentation

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