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Stimulating productive mathematical noticing: developing a framework for exploring the affordances of task and talk.

Adams, G. (ed.), Proceedings of the British Society for Research into Learning Mathematics (BSRLM). Vol. 35, No. 1. Proceedings of the day conference, St. Patrick's College, Dublin, Ireland, February 28, 2015. London: British Society for Research into Learning Mathematics (BSRLM). 13-18 (2015).

Summary: This small scale action research doctoral study aims to deepen understanding of how children can be supported to notice and use mathematically relevant ideas in the course of their class-based mathematical activity. The focus is on supporting and encouraging ways to look rather than dictating what to see. I employ the theoretical lens of ecological psychology to develop a framework to analyse the affordances of children's tasks and of classroom dialogue in stimulating mathematical noticing. In this study, noticing is positioned as a particular type of mathematical engagement; this paper focuses on the development and early use of an analytic tool.

Classification: C22 C32 C72 D22

Keywords: teaching; educational research; action research study; primary education; mathematical noticing; stimulation; motivation; affordances; ecological psychology; mathematical tasks; dialogue; procedural engagement; conceptual engagement; consequential engagement; critical engagement; engagement for noticing; noticing structure; noticing patterns and properties; noticing relationships
<http://www.bsrlm.org.uk/IPs/ip35-1/BSRLM-IP-35-1-03.pdf>