

## Creating Dialogic Spaces: A Comparative Study of Ground Rules

Kevin Martin

*Cambridge University*

kcm38@hughes.cam.ac.uk

Nigel Calder

*University of Waikato*

nigel.calder@waikato.ac.nz

This short communication reports on a comparative case study that is in the analysis stage. It involves the examination of the ground rules that were used to facilitate a dialogic space in two discrete and diverse research studies. The first one was the learning process that took place as Year 5 & 6 children learnt to code with *ScratchMaths* as part of their mathematics programmes. The second one was the learning process undertaken as crop farmers in rural east Africa looked to develop their practice through meetings and various other communications. The intention was to compare the development of general ground rules to see if there were common actions or principles that might indicate that they are important for the establishment of ground rules in dialogic spaces in general.

Researching and understanding the nature of dialogic space has become increasingly important in many areas of education in the last 15 years, including in mathematics education. Hence a better understanding of the central elements of dialogic space, such as ground rules, is valuable and of interest to the mathematics education community, and the education community in general. A comparative case study was undertaken with a focus on the perceptions and interpretations of key participants, and the actions and processes that occurred. The two projects were set in two discrete contexts, but their key purpose, to facilitate learning, was aligned. Some initial aspects of ground rules were collaboratively identified, with both studies then independently analysed to identify emerging themes related to these ground rules. Through several iterations of analysis, including cross analysis, and co-construction through the full research team, the themes were adapted and data from both projects were considered and ascribed to the appropriate theme as supporting evidence.

While that process is still currently not fully completed there are several key elements that are emerging and that seem to be important. These are related to: developing the processes for interaction and communication; developing trust between participants; developing respectful dialogue; teacher roles; and facilitating collaborative work and the co-construction of meaning. It is not the purpose of the research to establish key elements that are critical or might ensure that a dialogic space will emerge, as the aims of mathematics education research are usually context centric and eclectic. However, if there are key common attributes and processes that are evident in, and common to, these two diverse research projects, it does suggest that they might be important for other mathematics education work when establishing dialogic space and research, and perhaps for teaching, learning and educational research in general.

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