Author(s):Maree Davies (submitting/presenting), Anne Sinclair (presenting)

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Contribution

"I think that the discussions made online were really awesome, we got to argue and agree and disagree with others"

Research on the Paideia Method (a method for discussing a topic) was conducted in 20 classrooms across five schools, of varying socio economic environments (ages 11-13) in Auckland, New Zealand in 2010. The researchers sought to further examine the results from their pilot study of the Paideia Seminar, entitled ?*Talking Allowed: I like it when the teacher lets us talk without telling us what to say?* trialed in 2008 (Sinclair & Davies, 2011). In addition, in order to provide the optimum conditions to prepare the students for the face to face seminars, an online component (open source software) was added as an alternative medium to assist students in their preparation. The research questions were: What happens to the Nature of Interaction and the Complexity of the Discussion when students participate in a Paideia Seminar and an on-line discussion in preparation for the face to face Seminar? What is the optimal role of the teacher when participating in a Paideia Seminar and an on-line discussion to increase complexity of discussion?

The idea of a community of learners proposed and activated by Brown, Reuman-Moore & Hugh, (2009) has at its core, the intention to learn. The claim is that students develop deeper conceptual understandings in a community of learners compared with those who attend the more traditional classrooms (Brown & Campione, 1998; Rogoff, Matusov, & White, 1996). Within a learning community, Bahktin (1981) acknowledges the function multiple voices play in the construction of meaning and understanding, as they do not exist on their own but are reliant on the ever-changing quality of the dialogue at that moment of the interaction.

By utilising Bahktin?s (1981) idea of dialogical meaning-making, the student is able to play a more active role in their learning through talking with others in authentic exchanges, which help them to share and build meaning collaboratively (Gutierrez & Larson, as cited in Lyle, 2008). Classroom discussion is a frequently used teaching strategy, but is often unwittingly dominated by teacher talk, whereas the interactive nature of the on line discussion on Moodle and the face to face discussion via the Paideia Seminar, allows students to be more actively engaged in sharing information and perspectives through interaction with others.

There has been in recent times, increasing interest in on-line approaches for school-aged students and its impact on learning (Boulton, 2008; Chen & Wang, 2009; Jahnke, 2009; Kleine Starman, 2003; Quek, 2010; Yu, 2009). Interestingly, a recent study in Taiwan by Chiu & Hsiao (2009) with 11-12 year olds discussing on-line found that almost 70% of the collaborative groups were classified as passive or reticent and frequently off-task. Their suggestions were that there is a greater need for methods such as training or intervening approaches that enhance interaction and improve the quality of discourse in computer-mediated collaboration for elementary school students. This study will provide ideas for how this could be achieved.

Method

The study used a mixed method exploratory design, (2003). The data for normative practice, on-line discussion and face to face was sub-divided into two main categories: The Nature of Interaction and The Complexity of the Discussion. The Nature of the Interaction was analysed according to the type of interaction ? eg student to student with a question (SSQ). Within the Nature of Interaction, the dialogue in both on-line and face-to-face was analysed according to its complexity, using the five-stages of SOLO (the Structure of Observed Learning Outcomes) taxonomy developed by Biggs and Collis (1982). The five stages of SOLO are prestructural, unistructural, multistructural, relational, and extended abstract. At the prestructural stage, students acquire unconnected pieces of information, which have no organization and do not make sense. At the unistructural stage, simple but obvious connections are made but their significance is not grasped. At the multistructural stage, a number of connections may be made but the meta-connections between them are missed, as is their significance. In the relational stage, can internalise different ideas from other sources and make connections. At the extended abstract stage, students make connections not only within the given subject area but also beyond it.

Expected Outcomes

As with many European countries who have promoted curriculum reform, the principles of the newly gazetted 2007 New Zealand Curriculum put ?students at the centre of teaching and learning, asserting that they should experience a curriculum that engages and challenges them and is forward looking and inclusive? (p. 9). Is the spirit of this document a reality in classrooms? This study found that the complexity of the discussion increased when teacher talk was reduced and the interactions included mostly student-to-student responses in both a face-to-face seminar and on-line discussions. In particular the results from the on-line discussions revealed the most significant shifts from surface to deep learning. The study revealed the significance of the teacher?s role to the student-to-student responses being at a high complexity of thinking. For both the face-to-face seminars and the on-line Moodle discussion, when teachers provided opportunity and directions for students to garner domain knowledge, the resulting dialogue was higher in complexity. Ongoing challenge to students to provide evidence to support their statements was paramount. Furthermore, the study found that one of the conditions, which fostered this higher complexity of thinking, was in the selection of a highly

provocative statement or question, which generated multiple perspectives.

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Author Information

Maree Davies (submitting/presenting)

University of Auckland

Faculty of Education

Auckland, 74 Epsom Ave, New Zealand

Anne Sinclair

University Of Auckland, Faculty of Education

School of Teaching, Learning and Development

Auckland, Gate 3, 74 Epsom Ave, Epsom, Auckland, New Zealand, New Zealand