

## Face Off: Face On: Kids Discussions in Two World

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### Background

A pilot study of a Paideia Seminar was trialled in 2008 (Sinclair & Davies, 2009) in two classrooms at a New Zealand school (ages 11 to 13 years). This pilot study found that the complexity of the discussion increased when teacher talk was reduced and the interactions included mostly student-to-student responses. Students responding to each other with a question, challenge, or expansion of ideas led to enhanced outcomes. This student questioning and answering each others questions was an important revelation to the teachers to see/assess how the students had assimilated and understood what at times they had painstakingly "taught".

Running a Paideia Seminar requires much discipline. To ensure optimal student questions and interactions requires an appropriate and provocative statement posed by the teacher, high quality preparation by the students on the content knowledge of the question, and post-seminar feedback discussion. The success and the high interest generated from this pilot study indicate that broadening the project to include ten schools, in 2010, will provide a wider platform for testing this alternate pedagogy. This pilot study paper was presented at BERA, 2009 and is currently under review with the British Journal of Educational Research.

The proposed project is an extension of the pilot study, namely, trialing on-line learning as part of the preparation process. As indicated, a major finding of the research was the importance of quality preparation of content knowledge for the seminars to be highly successful. Therefore, the researchers are interested in finding out

- A) What happens to the Complexity of Discussion and the Nature of Interaction when students are given an opportunity to participate in an on-line discussion as preparation for the face-to-face Seminar? The researchers speculate on the potential of e-learning as part of this preparation and wish to pursue this idea through the use of software such as Moodle, which has interactive capability.
- B) What happens to the Complexity of Discussion and the Nature of Interaction from the teachers when responding to students during an on-line discussion, in preparation for the face-to-face seminars and face-to-face.

### Research Questions

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### Methods

We wish to conduct the project in ten schools of varying socio economic environments across Auckland. The students will be aged 11-13. We will gain normative practice evidence in four classes in each of these Intermediate Schools of normal classroom discussions. We will then keep two of these classes as control groups throughout the project and the other two classes will be the experimental groups, implementing the intervention, namely, the Paideia Seminar and the on-line

discussion as preparation for the Seminar. We will instruct the teachers and students on how to use Moodle (open source software). The study will use an exploratory design, from what Cresswell (2003) refers to as a mixed methods approach. This approach will involve the researchers first collecting qualitative data and then subjecting the responses to quantitative analysis. Because this method includes both qualitative and quantitative data (Fraenkel & Wallen, 2006), it is considered that the findings will provide a more complete picture of the study undertaken.

## **Frame**

The data for both on-line discussion and face to face will be sub-divided into two main categories: The Nature of Interaction and The Complexity of the Discussion. The Nature of the Interaction will be analysed according to the type of interaction – eg student to student with a question, student to student with a challenging statement, student to teacher with a question, teacher to student with an answer etc.

Within the Nature of Interaction, we are interested in the varying complexities of the discussions. Therefore, the dialogue, in both on-line and face-to-face will be analysed accorded to the five-stage 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, students are able to appreciate the significance of the parts in relation to the whole, and can internalise different ideas from other sources and make connections. At the extended abstract stage, students are able to make connections not only within the given subject area but also beyond it. The responses involve the student going outside the known and being able to elaborate and transfer the principles and ideas underlying a specific instance. 'Relational' and 'Elaborative' constitute a change in the quality of thinking that is cognitively more challenging than surface learning (Hattie, 2009, p. 28).

## **Research findings**

The researchers believe this research will contribute to the literature on the role of cognitive conflict and its impact on the quality of student discussions. In particular, what happens when a teacher provides a provocative statement in which students are expected to discuss and justify their position both on-line and face to face?

Some studies (Barron, 2003; De Lisi & Goldbeck, 1999) have found that learners benefit from a more transactive form of knowledge sharing, where they are confronted with ideas that are different from their own. It is through such cognitive dissonance, that they begin to think in a more critical way and perhaps reconsider previously held views (Barron, 2003). Through negotiation and re-negotiation, co-construction and re-stating of ideas, there is opportunity to consider a range of perspectives and create a new shared knowledge (Anderson & Haddad, 2005).

This project will be part of an international collaboration with academics, Dr Terry Roberts and Dr Laura Billings from the Paideia Centre at the University of North Carolina. Roberts and Billings direct the Center, have a long track record on providing resources and training for teachers, and are probably the world's more eminent researchers of this method.