

Social and Technological Innovations: Ways into The Knowledge Society

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Background

This study reports on social and technological innovations enabling an Aboriginal classroom to evolve into a knowledge building community. The main purpose for this research was to assess whether participants enculturated into a knowledge building environment would advance their textual, multimedia, and computer literacies. The social innovation was to develop a milieu that linked knowledge building theory (Scardamalia, 2000) with traditional Aboriginal education (Germaine, 2000). The premise was that individuals and groups in any context can create and work with knowledge; however a major barrier was that most participants believed that knowledge building and traditional Aboriginal education were incompatible. The former is based on putting ideas at the center through writing and reading; and in the latter there is more emphasis on experiential and oral learning. The technological innovation was that students used an online collaborative multimedia tool, Knowledge Forum®, to set out their theories publicly, to consider how well their ideas account for known information, to assess the productivity of one theory versus another, and through ongoing discourse, progressively improve their understanding to produce cultural artifacts of value to themselves and others (Bereiter, 2002).

Methodology

The classroom was an Aboriginal recovery program for students with profound social/emotional problems. In this year long study, participants were 20 adolescent students, their teacher, a First Nations Advisory Board, and a researcher from IKIT. In a regular 'Smudge Ceremony' activity to bring the classroom community together we introduced the idea of collaboration to advance knowledge. We asked students to write their autobiographies in the database, in part to introduce five students to the technology; they then taught another five students and so on. In class, students discussed authentic problems they wanted to pursue and created new views in the database to work on the problems of racial discrimination and understanding their native cultures. Two community elders also joined the database to answer questions about traditions, ceremonies and ways of life.

Results

Throughout the project, the teacher began to see that written discourse helped in creating an Aboriginal/knowledge building community, as did the Advisory Board. Most importantly, students enjoyed writing and reading in the database because it gave them time to reflect. Teachers, the First Nations Advisory Board and school administrators strongly objected to standardized tests of reading or writing skills; and so our suite of analytic tools underlying Knowledge Forum was used to assess literacy outcomes. Results showed that most, but not all, students contributed regularly, were using Internet research effectively, and increased their vocabulary.

Conclusions

What Knowledge building supported by Knowledge Forum afforded was the emergence of students' discourse as the primary medium for understanding what they are reading and composing. This pattern reverses the usual classroom discourse structure where the teacher is responsible for discourse. It is too soon to draw any firm conclusions about the relationship between knowledge building and traditional aboriginal approaches to teaching and learning but this study will inform the next phase of the research.

References

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