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Knowledge Building with Senior Secondary Students: a New Zealand Study

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Abstract

This paper reports a study using the knowledge building community approach developed by Scardamalia and Bereiter (2010) to advance senior secondary students' interest and understanding in science. Fifty-six Year 13 students from rural and low decile (in terms of social economic status) participated in this one-year study. These students attended two five-day residential schools (in January and July) at a New Zealand research-intensive university. Throughout the year a virtual school was set up, using the knowledge building approach and the networking software *Knowledge Forum*, to support the participants to develop their capability in creating and building knowledge in science by developing, building-on, and critiquing ideas in an online community of inquiry. Data collected from the questionnaire surveys, interviews, and content analyses clearly showed that the knowledge building process was effective in enhancing the participants' understanding and knowledge of science, and had a positive impact on their schoolwork. What the participants valued most was the opportunity to engage with like-minded people and the opportunity to discuss academic matters and challenge each other's viewpoints, both face-to-face and online.

Keywords

Knowledge Building, computer-supported collaborative learning, science education, inquiry-based learning

Biography



Kwok-Wing Lai is Director of the Centre for Distance Education and Learning Technologies at the University of Otago College of Education in Dunedin, New Zealand.

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