



Engaging Students in Inquiry-Based Learning through Knowledge Building

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Abstract

Inquiry-based learning has been an effective and exciting model of science instruction for teaching and learning. It involves students in questioning, investigating, building new understanding and communicating their learning to others. Teachers design lesson to engage students using authentic situations with opportunities for them to generate questions to formulate hypothesis while providing reliable sources of knowledge to check for understanding. Research suggests that using inquiry-based learning can help students be more creative, positive and independent (Kuhne, 1995). Other research shows that inquiry-based learning improves student achievement (GLEN, 2001).

The power of an inquiry-based learning is its potential to transform learners with deep engagement for new understanding. Engaging students using knowledge building constructivist approach provides a natural environment for it to take place effectively. Numerous research findings have shown that knowledge building induces motivation to learning.

Knowledge Forum provides the socio-metacognitive environment for such learners in an online knowledge building community to grow and has structures promoting engagement. The collaborative tools in knowledge forum provide the necessary features to enable engaged learning through critical thinking and problem-solving. The challenge is thus to make use of the engagement that is made possible through authentic, hands-on learning in ways that develop new understanding.

This paper aims to study the engagement level of students in an inquiry-based learning lesson through knowledge building. The empirical research will provide quantitative and qualitative evidences of engagement of students in inquiry-based learning. It will also underline the challenges faced by teachers in using such an approach.