SHAKTIPUR NEEDS ELECTRICITY: USING ROLE PLAY TO INTRODUCE MIDDLE SCHOOL STUDENTS TO DEMOCRATIC PROBLEM SOLVING

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Abstract

Conventional classroom teaching-learning does not empower students to understand and act in the world outside the classroom and participate in social decision making. Simulating real world contexts in the classroom is known to have several pedagogic advantages (Brown 1989). Involving students in mock decision making by simulating social contexts in the classroom gives the opportunity for teachers to provide inputs about democratic problem solving. Role play in the classroom has several pedagogic advantages. Students can express their ideas and defend them, critique other's ideas and viewpoints. Students understand that making decisions can be complex when social issues involve economic, ethical and other aspects. Context simulations provide opportunities for students to describe facts and evaluate them. (Simonneaux 2001, 2002)

This paper describes the experiences of a role play session with middle school students as part of an 8-day course on Energy and Environment. The context for the role play was a debate. The people of a small town called Shaktipur had already decided that they needed to locate a Power Plant in their town and were now asked to to decide on choosing an appropriate energy source for the power plant. The context was aimed to give us insights on students' understanding of energy sources for power plants. The activity was carried out with two sets of students in two independent, but similarly conducted sessions.

The group dynamics among the students in the two sessions was found to be different, as was the outcome of the role play. They differed both in qualitative and quantitative ways. The paper will present the exploration and analysis of students' favoured energy source options, and the factors that influenced their choices. The paper will also comment on the effectiveness of the role play of a debate in contributing to democratic decision making as well as on the researcher's role and intervention. The paper aims to generate guidelines for creating democratically effective role play situations in actual classroom settings.

References:

Brown, J. S. et al. (1989). Situated cognition and the cultural learning. *Educational researcher*, 18(1), 32-41.

Simonneaux, L. (2002). Analysis of classroom debating strategies in the field of biotechnology. *Journal of Biological Education*, 37(1), 9-12.

Simonneaux, L. (2001). Role-play or debate to promote students' argumentation and justification on an issue in animal transgenesis. *International Journal of Science Education*, 23 (9), 903 – 927.