

Introducing Knowledge Building Principles in a Grade 5 Classroom

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Our Authentic Problem/ Challenge:

Our Grade 5 classroom tackled the authentic problem of school improvement. The students sought and collected data related to the pillars of Equity and Well-being, and took steps to implement school improvement measures. We used some of the Knowledge Building (KB) principles throughout this process: Knowledge Building Discourse, Epistemic Agency, Idea Improvement, Idea Diversity, and Pervasive Knowledge Building.

Major Goals:

I hoped that this process would provide the opportunity for increased student voice in our school community. I also wanted to employ some of the Knowledge Building principles with my students, and try to build our abilities to contribute to each other's learning in a meaningful way.

Promising Practices:

I began to introduce Knowledge Building in my Grade 5 classroom by using the scaffold "I need to understand" during collaborative work, which I have learned can be linked with promoting "Idea Diversity" (Hong & Lin, 2018). After collaborating using the "placemat strategy" to generate survey questions, the students created a Google Forms survey and distributed it throughout the school. Next, they analyzed the data to consider the problems that their peers were experiencing, and generated ideas about next steps for school improvement. Epistemic agency resulted, as students felt compelled to pursue a variety of projects in order to improve the school, and they developed their own "opportunistic collaboration framework" (Zhang, Scardamalia, Reeve & Messina, 2009), creating spontaneous small groups to work together on projects related to the survey, including a very productive group that hosted a school sale in an effort to raise money to improve the school.

Advances and Challenges:

The biggest advance in our classroom has been related to a continued emphasis on respecting idea diversity. This affords the opportunity for more students to participate and to understand each other's differing points of view.

We are also now used to viewing ideas as improvable. As a practitioner I now apply this to many processes that we undertake, and it has changed my view so that I now truly recognize that we are in a process of continual development, and re-design.

The biggest challenge throughout this process has been related to learning when to intervene and guide students with respect to social dynamics, and when to step back and let the students figure out how to lead or be led. At first I felt compelled to direct the less-involved students to participate in the opportunistic collaboration activities, but this caused strife. I am still learning how to help students "assume collective sociocognitive responsibility", which is posited as an essential characteristic of a KB teacher (Chen & Hong, 2016, p. 273).

Reflections and Next Steps:

The process of making changes based on the results of our survey is still ongoing in our school community, and the impact of our work has now permeated throughout the entire school. As a result of our efforts, our school administration decided to create a "Student Advisory Committee" at school, and there has been the development of a school wide initiative to promote and support student

voice - a student film festival called the “GRIFF” (Golf Road International Film Festival.) This initiative began because my students discovered through their data collection and analysis, that many students felt their life experiences weren’t represented at school. Now, in an effort to represent the diverse perspectives in our school community, students across the school are learning to make films to tell their stories. Our attempts to promote and recognize “idea diversity” have truly resulted in the promotion of diversity throughout the entire school community.

References:

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- Hong, H., & Lin, P. (2018). Elementary students enhancing their understanding of energy-saving through idea-centered collaborative knowledge-building scaffolds and activities. *Educational Technology Research and Development*. doi:10.1007/s11423-018-9606-x
- Zhang, J., Scardamalia, M., Reeve, R., & Messina, R. (2009). Designs for Collective Cognitive Responsibility in Knowledge-Building Communities. *Journal of the Learning Sciences*, 18(1), 7-44. doi:10.1080/10508400802581676