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# **KNOWLEDGE BUILDING IN ACTION INTERMEDIATE (7-8)**

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**Knowledge Building with Exceptional Learners**

**Written by Austin Kjørven**

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**Bringing IDEAS to life!**

# 3.2 KNOWLEDGE BUILDING WITH EXCEPTIONAL LEARNERS

Written by Austin Kjørven, Grade 7 teacher, TDSB

## INTRODUCTION

Austin Kjørven is a middle school teacher in the Toronto District School Board. He began introducing Knowledge Building to a class of Grade 7 students who thrived on the student-led collaborative approach to learning. In a recent relocation within the TDSB, Austin's teaching assignment transitioned to an Intensive Support Program of 13 Grade 6–8 exceptional learners; students who have learning strengths and needs that are individually specific. Within this environment, Austin realized that once his students were able to identify their personal strengths and needs as learners, and empathize with other learners in the class, Knowledge Building would provide a framework for rich, student-led collaborative learning.

## START WITH THE KB PRINCIPLES

**Improvable Ideas** — From the onset of our learning, whether from an informal discussion about an interesting topic or a major project, students know that ideas are never complete. I often have students continue to research information, or continue to follow news stories about their projects, long after they have been submitted and have been graded.

**Real Ideas, Authentic Problems** — By introducing students to the Big Ideas from the curriculum that address authentic current problems, and by allowing them to create questions and pursue answers collaboratively, the learning process becomes self-actualized and appreciated.

**Democratizing Knowledge** — In my experience with KB, emphasizing the importance of shared ideas and collective contributions not only leads to rich idea development, but also highlights the role that students play as contributors in building ideas. Students come to realize that they are not only valued, but relied upon as integral parts of the process. Like any team, without all members actively present and participating, then KB can't reach its full potential.

**Idea Diversity** — As students develop a deeper understanding of themselves as learners, particularly with regards to their strengths and needs, they are able to contribute their insights, while at the same time, inquire about and review ideas they do not fully grasp. While working together with their peers, all students understand the importance of collective advancement, and placing emphasis on group understanding. A quote I often use to accentuate this is, "We're not good unless we're all good!"

## KB PROVOCATION

Knowledge Building was used as an entry point for a Social Studies/Geography Science/ Collaborative Inquiry unit addressing Canada's Responses to Global Issues and Biodiversity (Grade 6), Physical Patterns in a Changing World and Interactions in the Environment (Grade 7), and Global Development: Patterns and Sustainability and Systems in Action (Grade 8). Students continued Knowledge Building throughout the unit, synthesizing and building upon information they had gathered.

### Move 1: The Wonder Wall and Big Ideas

To introduce the idea of **KB Discourse**, I shared with students some of the Big Ideas from the curriculum on my classroom wall. I also began a Wonder Wall on a bulletin board next to it where students could post questions. Because I was teaching integrated units between three grades, I introduced Big Ideas that could not only connect on a cross-curricular level, but also across the three grades.

Some examples of Big Ideas for Science included:

- Grade 6: Biodiversity includes diversity of individuals, species and ecosystems; and, humans make choices that can have an impact on biodiversity.
- Grade 7: Ecosystems are in a constant state of change, and the changes may be caused by nature or by human intervention.
- Grade 8: Systems are designed to optimize human and natural resources.

#### What surprised you?

The ideas that come from students in Knowledge Building always surprise me because I am always learning something new. Often I learn the most when I see questions that appear to be very simple at first glance (almost to the point where I want to skip them). From the discussion that ensues I realize how my own bias can prevent me from considering the variety of perspectives that can only materialize from a group discussion.

Examples from Social Studies and Geography included:

- Grade 6: Global issues require global action. How have natural disasters affected Canada and the world?
- Grade 7: Natural events and human activities that change Earth's physical features can have social, political, environmental and economic consequences. Why do earth's physical features change?
- Grade 8: Human settlement patterns are affected by the natural environment and also affect the natural environment. In what ways does Canada's environment affect how we live? In what ways does the way we live affect Canada's environment?

Through a discussion with the class about these ideas and how they are connected to each other, we drew parallels between grades to consolidate the ideas into common class learning goals that would drive the unit.

For Science, we said: We need to respect and understand natural environments and ecosystems because human activities can affect them and all living things need them.

For Social Studies and Geography, we said: We will learn how all humans are connected to the earth and how the decisions we make affect us and the earth.

### **Move 2: Structured Hot Topics Knowledge Building with Accountable Talk Prompts**

After establishing the Big Ideas and providing a space for students to begin the process of posing questions, I introduced Hot Topics as a way for students to build knowledge through authentic, current and relevant issues connected to the unit. I began sharing short articles and video clips, discussing a current situation related to the area of study. For example, in the fall of 2016, I shared a news story about Hurricane Matthew, a natural event that had devastating effects on communities and ecosystems on the Atlantic coast. I modelled how to create deep and meaningful questions about the topic, and guided the class through a Knowledge Building discussion where students answered the questions and generated more questions that would lead them to research hurricanes and monitor the aftermath of Hurricane Matthew.

Gradually, I released the responsibility of conducting Hot Topic inquiry discussions to the students. When given the opportunity to share ideas and issues relevant to them, and to lead a discussion around questions they have created, students feel their ideas matter and they become empowered to actuate their learning.

### **Move 3: Hot Topics Facilitator Synthesis**

As students became more comfortable with Knowledge Building, Hot Topics discussions and answering questions, building on other student's answers, and challenging ideas, the discussion organically evolved to the point where new, more complex knowledge emerged from synthesizing different ideas that had been shared by the class. In addition to their role of creating questions and leading a discussion, the facilitator was given the responsibility of consolidating the discussion by stating these new ideas through phrases such as, "This is what we have discovered...", or "From our discussion, I think we can all agree that..."

#### **What was one of your deepest learnings?**

My deepest learning was how facilitating student-driven learning sparks curiosity and leads students to develop confidence. I watched my students become self-motivated, confident learners who actively perused answers to their questions and enjoyed sharing what they had learned with others, rather than having to adjust their thinking to fit teacher-led activities.

## **STRATEGIES FOR SUSTAINING IDEA IMPROVEMENT**

A key strategy I've learned for idea improvement is to utilize global current events whenever possible. As events are reported on, students can have Knowledge Building discussions to develop their understanding, draw connections and make predictions about how the event will unfold. As the learning takes place in real time over the course of the event, the process is authentic; everyone — including the teacher — learns together, and there is no option of looking ahead to see how the event plays out.