Knowledge Builders Podcast
Episode 1 – Innovation at Work: Exploring the KB Principles

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>> Hi. Welcome to Knowledge Builders, a podcast about education for innovation.

Thanks for joining us in the first of a four-episode series where we'll be looking inside a knowledge building classroom, and seeing KB practice in action. You'll hear from many different Knowledge Builders throughout this series, including the classroom teacher, Jason Frenza.

>> I heard my students talk about how well I bring my idea to the table and I share my idea, and then another student shares their idea, and together, we decide, and we've come up with another idea from that simple idea, right? And I think it's said in a condition that there aren't right or wrong answers; that an idea could be simple and that it could be grown and flourished and built upon.

>> You'll hear commentary from knowledge building expert, Marlene Scardamalia. Marlene holds the president's chair in Education and Knowledge Technologies at OISE, and serves as director of the Institute for Knowledge, Innovation and Technology.

>> KB practice actually takes a model of how knowledge creating organizations work. They're dynamic, interactive places where people help each other, and teamwork is live and vibrant. And people expect, actually, to advance knowledge. So that's the general model that we're using.

>> You'll also hear directly from Jason's grade eight students, who bring knowledge from diverse cultural backgrounds, and represent a wide range of academic skills, abilities and interests.

>> All ideas are...

>> Improvable.

>> All ideas are...

>> Valued ideas.

>> All ideas are meaningful.

>> All ideas are...

>> Smaller parts to a bigger thing.

[MUSIC]

>> Ideas are everywhere. But how do we take those ideas and improve them? This is the central question that knowledge building explores. To start this series, we're going to find out a bit more about KB practice, and the principles that frame this pedagogical approach.

Knowledge Building is the deliberate creation and improvement of community knowledge. It builds off the natural curiosity of students by placing student inquiry at the forefront of learning. KB practice gives students the opportunity to work creatively with ideas, and problem solve on any subject. Though we're looking at a grade eight science class in this series, it's important to note that knowledge building is possible at any age, for students studying any topic.

>> I feel that a lot of the time, in a regular classroom environment, it's always straight from the textbook, so everybody's reading the exact same thing, and most of the time, everything going through everybody's brain is going to be around the same idea, so that when we're put into these knowledge building circles, everybody is given different theories put out by different people, and what people have been thinking differently. And that triggers more things in different people's brains that allows them to expand and bring into one idea.

>> The foundation of knowledge building is based on 12 principles that describe key characteristics of effective knowledge creating organizations. They're framed in a way that's directly applicable to the classroom, and you can think of them as the 12 habits of highly creative teams.

Marlene Scardamalia reminds us the principles are a flexible framework, not a linear or static process.

>> The most important part of the knowledge building principles is that they convey the dynamics of these powerful communities that can advance knowledge for social good, so they are components of a complex process, which the really good news is that any single one that you unlock helps to unlock the others. So it's not necessary to do one, two, three, four, five, six, you know -- any one of these that you start on opens the others for you. So why 12? Well, they are components each one adds that is a bit different. Each one is a different facet, but I would say focus on whichever one appeals to you.

>> There are a few principles we're going to focus on in this series; the first being improvable ideas. This principle emphasizes that students work to improve the quality, coherence and utility of ideas, and that all ideas can be improved. The second important principle to note in this series is KB discourse, which views

collaborative dialog as a powerful driver of idea development. The third principle we're going to look at is collective responsibility, which enables and encourages all students, regardless of ability, to produce ideas and advance knowledge of the entire classroom community. The principle of "rise above" is explored when students learn to work with diversity, complexity and messiness, and out of this achieve new synthesis and knowledge.

Now all principles require a safe classroom environment, so students feel comfortable taking risks in their learning. There'll be lots of key things to listen for, as you journey through these episodes with us; one will be the teacher's role in a KB classroom, and how that changes the classroom dynamic.

>> I think for me it's knowing that I can let go, and I've given myself permission to let go, that I know that I don't always have to be sitting at the front of the room. I don't have to lead the instruction, that they can lead the instruction, but it's providing them with the opportunities to do so -- I think that's my responsibility. And I do still have a responsibility to ensure that they're learning the curriculum, that their research is going in the right way, and that it's still tying into the curriculum expectations. And so that's where I see myself as a facilitator.

One of the main goals of this unit in the curriculum expectations is, the first unit's really to investigate various types of fluids, and how they both positively and negatively impact the environment, and also looking at the cost involved in cleaning up those spills. So I spent a lot of time with the students building, spending one-on-one time with them, rolling around on my "[Really] Chair," as I always call it. I'm meeting with students and having them meet with each other.

>> You'll get to hear Jason as a facilitator as you listen to the inner workings of his knowledge building community, which will be evident through the knowledge building circles in important practice in KB classrooms.

Here's a snippet of what a KB circle sounds like.

>> I still have a question about that. So if the particles are expanding, how are the particles expanding but the shape isn't getting bigger?

>> Well, I'd like to build off of John's question. When you said that, so yes, the particles are expanding, the reason why when something's in the state of a liquid or a gas, that's why it can take the shape of anything, and it's able to flow freely because the particles --

>> In these circles, students bring prior knowledge and research and use that to improve each other's ideas, sprouting new questions and fruitful discussion.

>> -- they're so great because a lot of it can be based on opinion and real-world connections. So everybody that participates in the knowledge building circle has, obviously, their own personal experiences that they may be able to connect to, so it just gives everybody a chance to just chime in.

>> Jason firmly believes that all students should feel they are valuable members of a knowledge building community. But he wants other educators to know that building a KB classroom doesn't happen overnight.

>> I'm going to be honest with you; it has not been easy. There are times when I can see where teachers want to give up really easily, and there have been times when I have wanted to give up, or I know where knowledge building goes in the end, and I never lost sight of the end result, I never lost sight of students being the drivers of their learning. I've never lost sight of students being motivated by each other and the love of learning, and having fun and being excited, because that's how students learn. If you set the conditions for the love of learning, and for students to feel excited about learning and want to be there, then the learning is going to grow and flourish over time. And I think teachers just need to say to their self, it's okay to let go.

>> Throughout this series, students will share how they've grown as learners, adapting to a KB classroom environment.

>> In a classroom situation that's not doing knowledge building, it's very teacher-directed, where they'll put notes up on a board, and you need to copy them down. There's no chance for students to challenge thinking. Knowledge building gives students a safe environment to question ideas and to improve ideas.

>> Children's voices of this notion that I can improve ideas, I can help other people improve ideas, I can literally generate ideas that can make the world better -- it means a lot to me that actually these students understand that that's what they're in school for, and it's absolutely part of what they'll be doing in life when they're not in school.

>> So now that you know a bit more about knowledge building, the KB principles and the voices you'll be hearing in this series, you can listen sequentially to how learning unfolds in Jason's class.

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>> Knowledge Builders was produced by MediaFace on behalf of the Ministry of Education Student Achievement Division. For more educational resources, including a listening guide to accompany each episode, all of the episodes in this series and a photo gallery of Jason's classroom, visit the Learningexchange.ca --

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Coming up next time...

>> Remember, any new knowledge that someone talks about, you're going to add to.

>> We open the door to Jason's grade eight science class, and are introduced to his students, who are in the middle of their unit on fluids. They'll be using Jason's improvable ideas board, a public place for ideas to live and grow in the classroom.

Thanks for listening!