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## Educating Seth: An Ecosophical Conversation

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Philosophers of education from antiquity to the present day when searching to build a solid epistemological foundation for curriculum have been preoccupied with the question “What knowledge is of most worth?” The need for solid foundations, argued and supported with meticulous logic has been taken as a given. Whether such foundations can be determined with any certainty has been critiqued by countless postmodern spokespersons. Arguably, these critiques have dissected, deconstructed and dismissed the presumption that such foundations are needed or are even possible. Nevertheless, despite such critique, curriculum as a practice, is still organized and carried out by beginning with the same focus: *What knowledge is of most worth?*

### **The Focus on “What” is to be Taught**

What to teach is still the undisputed starting point for education. Indeed, the focus on “what” dominates our thinking in all important sectors of human activity: What is your nationality, what do you believe in, what is your net worth, what stocks do you hold, what school do your children attend, what car do you drive, what job do you have, what church do you attend, what political party do you support, what communication devices do you use, what movies do you like, what can I pack in my carry-on baggage, what kind of health insurance do you have. Supposedly, once we are clear about the “what” we can then proceed with the details of how to acquire the what, when to do so, from whom, and so on.

By beginning with the *What* as the starting point of our educational activity a pattern is established for how the educational narrative subsequently unfolds. After centuries of such unfolding, the pattern beginning with *What* has become part of our cultural practice: it even generates our common sense.

Having become the “common sense” way for charting education, that pattern now prohibits other ways of thinking/doing from making any sense; other patterns are thus easily dismissed. Our biggest fear is that ecosophical educating will be summarily dismissed if brought forth within that same common sense. Within that common sense, ecosophical educating would be seen as just another *What*, just another commodity among thousands of others vying for “shelf space” in the market place of education. As we see it, arguing for new shelf space for ecosophical educating would be less rational than marketing coal to Saudi Arabia.

Realizing that another insipid attempt to unseat market philosophy would be futile (witness the “major breakthroughs” achieved at the 2010 Copenhagen Environmental Summit) we have chosen instead to tell a story of curriculum.

If nothing else, the story itself, or at least its narrative structure, might open alternative paths that allow ecosophical educating to enter the educational scene on its merits.

As we see it, we need to *situate* ecosophical educating much differently. In this paper, we hope to point ecosophical educating in a different direction by outlining a path that has a different storyline, a narrative structure that begins elsewhere. To reveal that path we tell two stories, the first depicting the dominant narrative of *What* that determines today's curriculum. We then transform that narrative structure by literally turning it on its head, allowing another path to emerge, one that can bring forth ecosophical curriculum.

Perhaps surprisingly, the keywords in both stories are exactly the same. This is both surprising and revealing. The sameness of the words is revealing in the sense that ecosophical educating was always present - we merely focused otherwise; the sameness of the words is surprising in the sense that ecosophical educating isn't as radically different as many have supposed. Perhaps even more promising, the fact that the keywords are identical makes it easy to precisely specify how the two paths are the same and how they are different. As a collateral benefit, each keyword is monosyllabic. As the reader might anticipate, the keywords are *What*, *When*, *How*, *Why*, *Who* and *Where*.

The narrative structure of an educational curriculum is determined by the simple processes of ordering these words. Thus, each narrative structure is an "ordered n-tuple" where  $n = 6$ . Each 6-tuple presents the narrative structure of a classroom whereby education occurs within. The first n-tuple described below specifies the narrative structure of classrooms currently in vogue – those beginning with *What*. The second presents what we suggest could be the narrative structure of classrooms within which ecosophical educating can unfold.

### **The Narrative Structure of Current Classrooms**

As we see it, here is the narrative structure of current classrooms as an ordered 6-tuple:

*(What, When, How, Why, Who, Where)*

Quite a barren story we must admit. However, its barrenness can be a blessing in that as a bare-bones structure, many compatible stories can be told by adding some "flesh" to the bones. As an example, imagine how a story might arise in conversation between Sophia, a retired Professor, and Seth, an elementary school teacher whose world is thoroughly grounded in today's "pop culture". Nevertheless, Seth remains hopeful that he can make a positive difference in the lives of children.

The setting for the conversation between Sophia and Seth is in the staff room of the elementary school where Seth teaches. He is a fifth grade teacher who is curious enough to wonder how something as esoteric as “ecosophical educating” could occur in his classroom. In particular, he is skeptical about how something that is, for example, as straight forward as math could be taught ecosophically. As a retired senior with plenty of time on her hands, Professor Sophia agrees to meet him at 1330 hours in the staffroom where he is spending his “spare” or preparation time.

- Seth: Wow, right on time! Can I get you a cup of coffee?
- Sophia: That would be nice (settling into a comfortable chair).
- Seth: Thanks for coming out on such short notice, especially when, as I mentioned, I am doubtful that ecosophical educating is anything but another high-sounding fad.
- Sophia: My pleasure. And don't worry about fads or doubt. Doubt has been good to me – it often opens paths where I least expect them. And speaking of paths, when considering new ones, I find it useful to look a bit closer at the ones I've gotten used to.
- Seth: Hmm. I see we will be talking metaphorically. As an English major, I like that, but I like numbers too. So what paths have we gotten used to?
- Sophia: Do you mind if I respond to your question with a story?
- Seth: Why not? I often use stories in my teaching – kids like them and so do I. All my kids know that a story has a beginning, a middle, and an end. I often supply two of the parts and they have to write the third. That gets them thinking creatively!
- Sophia: A great idea! My lucky day! I'm going to start with what I think is the story of today's classrooms. As I see it, that story has 6 parts. On second thought let's think of it as 3 parts – a beginning, an end, and a 4-part middle!
- Seth: Why not! But beware - I'm going to be watching for your slight-of-hand!
- Sophia: That will keep me on my toes or heels. My story for today's classroom begins with *What* – what to teach.
- Seth: Will that be math, social studies, language, science, and so on?
- Sophia: Yes, and all the topics within each. We start with the content, the stuff that is to be covered during the year.
- Seth: You mean all the content objectives identified in the Program of Studies for say math?

- Sophia: Precisely. We just need to look at the curriculum guide for grade 5 math issued by the Department of Education to know what is to be taught. Notice too that the content is organized into “strands” (or some such organizer) – the number strand, the . . .
- Seth: Geometry strand, the operations strand, the problem solving strand, the measurement strand.
- Sophia: And if you look across the grades, you see what was taught in previous grades and what is to be taught in later grades, all laid out neatly under each strand.
- Seth: I see where you’re going. You’re now talking about the *When* – when each bit of *What* is to be taught, the later stuff coming in later grades and building upon the earlier stuff.
- Sophia: Exactly. If the earlier stuff is mastered, the later stuff will be a piece of cake.
- Seth: With icing on it!
- Sophia: And this “cake” has a name: A “scope and sequence” chart.
- Seth: Why of course! The scope is the *What* and the sequence is the *When*.
- Sophia: Now you’re taking the cake right out of my mouth!
- Seth: And you know, these days, you can’t develop curriculum without a scope and sequence chart. I’ve sat on some curriculum committees and a scope and sequence chart is used like a template – we fill in the blanks.
- Sophia: Yes, curriculum developers are almost like workers stocking shelves in Walmart.
- Seth: Walmart? That’s bad!
- Sophia: Yes, sorry. But let’s hold that thought in suspended animation.
- Seth: Okay, but don’t forget to unsuspend it!
- Sophia: I promise. In the meantime, now that we know *What* to teach and *When* to teach it, we need to find out *How* to do that teaching.
- Seth: Yeah, *How* to teach all those *What*’s. And I see what you’re up to! You’re using the five W’s and the H – the journalists’ method for getting the complete story!
- Sophia: Yes, I guess I’m pretty transparent as well as simple-minded. So what do you think follows the *How*?

- Seth: Well, what's left? *Who, Why* and *Where*. What's next? I'd say it's *Why*. We often say the *Why* of things is important – *Why* we are teaching something.
- Sophia: I agree, but do you think we as teachers really give much thought about *Why* we are teaching a particular content?
- Seth: I'd like to say we do but I also know we aren't encouraged to question *Why* we are teaching the stuff in the curriculum. That is a given. It's already been chosen by "experts" – people with PhDs who construct the curriculum guide, the Program of Studies.
- Sophia: The stuff on the shelves has already been selected and organized. We've each bought into it. Now we only need to find good ways to get children to consume it.
- Seth: And become healthy by eating a tried and true diet.
- Sophia: Yes, and the only reason I mentioned Walmart earlier was because they are excellent at what they do. So the *Why* has already been dealt with in deciding on the *What, When* and *How*?
- Seth: I guess so - the big thinkers have already done the thinking for us. Indeed, if someone were to ask me why I am teaching something today, I can justify it by saying the children will need it to progress to the next topic.
- Sophia: Like teaching the addition of single digit numbers before teaching the addition of two digit numbers?
- Seth: Yeah, something like that.
- Sophia: So, we kind of dismissed the *Why* as something trivial that is pretty much dealt with by reducing it to a *When* – the reason we teach something today is because it is a "prerequisite" to tomorrow's content. We acquiesce the *Why* to curriculum experts.
- Seth: We don't have time to redo their job. That's why they make the big bucks. Wouldn't it be redundant and wasteful to question the decisions that took experts years to come to and years of education to get that PhD?
- Sophia: Well, I guess that is what the experts would like us to believe!
- Seth: And you know, I kind of agree. The only caveat I have on that is this: What if a student raises the *Why* question? Why are you teaching us this stuff or why do I need to know this? Trouble is,

serious students don't ask such *Why* questions. Only troublemakers do.

- Sophia: Maybe "serious" students don't have time! They want to get on with the show. On the other hand, impudent students would ask! And we can't waste time on the impudent!
- Seth: But what if a "serious" student were to ask, "*Why*?"
- Sophia: Just like you're asking me now! Good question. Perhaps in the present story, there is no room for such an event. The thinking has already been done – get it!
- Seth: So you are putting me in my place. You are treating me like an impudent student! I don't like it but I can understand it is part of the larger story. However, how do we create room for such a student? Shouldn't we?
- Sophia: Yes, perhaps we need to create space for such students. Maybe there is space in an "ecosophical" narrative?
- Seth: I can't see how yet.
- Sophia: Well, let's get the rest of the present story done so we can move onto "greener" pastures.
- Seth: Good idea. So far we have *What*, *When*, *How* and *Why*, where *Why* was already subsumed in doing the *What* and *When*. I suggest that for good teachers the next concern is *Who*. We like to think all kids are different and we need to cater to those differences.
- Sophia: Are you alluding to "individualization"?
- Seth: Yeah, that's one way of saying it. We don't treat all kids the same, we try to individualize. You know, I just had a flash! Individualizing is a method of teaching. It is a response to how to deal with individual differences. The *Who* is reduced to *How*! Aren't I brilliant!
- Sophia: Yes indeed! Just like the *Why* was reduced to the *What/When*.
- Seth: But why all this reduction? Aren't the *Why* and the *Who* important on their own merits? Haven't we given the experts too much leeway, too much authority? Too much authoritarianism never was a good thing in a democracy!
- Sophia: And perhaps not a good thing in education either, and perhaps even less appropriate in an ecosophical educating.

- Seth: I'm getting a bit intrigued. We've already trivialized the *Why* and the *Who*. I guess the *Where* will suffer the same treatment but I don't know exactly how.
- Sophia: Think of today's schools as the places where learning is to occur. Who designs these places? Did you have any input into the design of this school?
- Seth: I see where you're going. Again it's the experts who have pretty much already dealt with the *Where* – the architects I guess.
- Sophia: And it seems the design of schools follows the same idea over and over again. Each teacher gets a room of her own, most rooms being interchangeable except for specialized places such as the music room, or the science lab, or the gymnasium, or the multimedia centre.
- Seth: But even these specialized places are all the same – each science lab is like the other science labs. But I still have a lot of freedom when it comes to my own classroom!
- Sophia: Yes indeed. At least you have the authority to create your classroom as a particular place. But what kind of place?
- Seth: Maybe that's *Where* we should start. What kind of place should my classroom be?
- Sophia: I couldn't agree more. Why don't we start with the classroom as a particular *Where* and see where we might go?
- Seth: Do you mean we start with *Where* instead of *What*?
- Sophia: Exactly. That way we can develop a different story structure, one that begins with a place rather than with content.
- Seth: Oh I see your strategy. Ecosophical educating would be more concerned with *Where* than with *What*!
- Sophia: Or at least it would situate our learning before it gets overpowered with or subsumed under the *What*, *When* and *How*. And having thought about this a bit, I suggest we turn the story structure completely on its head. We begin with *Where* and end with *What* in exact reverse order.
- Seth: From *What*, *When*, *How*, *Why*, *Who* and *Where* to *Where*, *Who*, *Why*, *How*, *When* and *What*! "Backwards" education here we come!
- Sophia: Quite a challenge don't you think?
- Seth: Forward or backwards, I can't imagine how to start with *Where*!

- Sophia: I'm not surprised. You haven't had to do so before! But think of learning something new and something major such as a foreign language.
- Seth: A foreign language? Immersion! Why of course – even 3 year olds master French when growing up in France!
- Sophia: Here in Canada though, even 18 year olds have a hard time! *Where* seems to make quite a difference. Do you think immersion would work for other areas other than language?
- Seth: I don't know of anyone who learned to ride a bike or use a computer by studying a manual, although some of us have tried – I mean using a computer.
- Sophia: Or learned to teach by listening to a lecture delivered in a lecture hall?
- Seth: Heaven forbid! And yet much of teacher education occurs in just that way, mine included!
- Sophia: Must admit as a teacher educator I've participated in that way too.
- Seth: So, do we construct the classroom as a place of immersion? I can see how we might do that for Immersion French or Immersion Spanish but I'm having trouble thinking how I might teach "Immersion Mathematics"! Where is "Mathland"? And besides, right now I'm pretty much following the recommended practices in the Program of Studies and the school's math coordinator says I'm doing a great job.
- Sophia: I'm not surprised. I don't doubt for a minute that your teaching is up there with the latest recommendations. I see from the supply of concrete aids in your math corner that your kids do a lot of "hands on" learning.
- Seth: Yes, I've been to several math workshops and got excited by the many activities that get kids really engaged with mathematics.
- Sophia: Exactly, and I can't help but think you are doing a bang-up job with the *How*.
- Seth: Oh, yes – the *How*. I've been focusing on the *How*! It's been my salvation. Have I been focusing too much on the *How*? You're trying to tell me that my success with the *How* is actually an impediment for me if I'm trying to get to the new storyline!
- Sophia: I wouldn't go so far as to say your success with the *How* is an impediment. *How* is still part of the story. Indeed it would

become even more important if situated in an appropriate *Where*.

- Seth: Okay, so how do I situate the *How* in the *Where*?
- Sophia: Do you mind if I tell you a story? It's a true story based on my own fiddling with *Where*.
- Seth: Do I mind? I love stories. And wow, I just got the idea that a story is a way to situate an idea! So you are situating my question in a *Where*!
- Sophia: I wasn't thinking of it that way but I like what you're thinking! Indeed, I like it so much let's pursue your idea. Do you mind? We can come back to my little story later.
- Seth: Do I mind! I'm feeling a bit important here!
- Sophia: So, what led you to think of a story as a setting for *How*?
- Seth: Actually, I can't take all the credit – as much as I'd like to! As you know, I'm a language major. In my novel studies I know that great novels are always situated – there has never been a story that wasn't set in a particular place. Without a place, a story can't happen. A story always happens somewhere, and that particular somewhere sets the tone, sets the context, sets the conditions for what happens. I'd go so far as to say that in a story the context is more important than the text!
- Sophia: So the meaning in a story is as much "between the lines" as it is "on the lines" or "in the lines"?
- Seth: Exactly. The meaning arises as much from what is not said as from what is said. The "not said" is in the place? I guess so. The stuff between the lines is already lurking in the place. We as readers have to bring it out. And are you saying it's the same in math?
- Sophia: You be the judge after I tell my little story.
- Seth: Okay, lay it on me.
- Sophia: A couple years ago I (Dr. Sawada) walked into a grade 4 classroom as a math consultant but I wasn't dressed like the usual one. I was wearing an old trench coat that smelled as crumpled as it looked! The teacher had told the kids they were having a special visitor that day, someone called Dr Sawada. I walked into the classroom peering here and there and muttering as I hovered close to a window, "There don't appear to be any footprints here." Then I examined the doorknob carefully and whispered as I glanced up at the students, "The fingerprints

here are smudged.” Looking inquisitively at the class, I asked, “Who do you think I am?” And as the hands shot up, I continued examining the door and exclaimed, “Yes, this lock has been tampered with!” And then, as I pulled out a magnifying glass to take a closer look, I noticed that now nearly all the kids were waving their hands wildly and shouting, “I know, I know!” And to prolong the ambience, I uttered a complete inanity: “Let me give you a clue; I’m not a dentist.” Well, many of the students were now standing beside their desks dying to blurt out what they knew; the classroom was a sea of excitement. Looking at a little girl waving exuberantly, I asked “So who do you think I am?” “A detective!” she blurted. All the hands went down, somewhat disappointed at not being able to shout out their knowledge. However, one boy still had his hand up. Did I fail him? Looking at him I asked, “What do you think?” “A spy,” he shouted. That was good enough for me.

- Seth: Wow, that was exciting. So you were “setting the scene”?
- Sophia: Yes, and I must admit, before doing it I was apprehensive. Who was I to know grade 4 students would fall for my little act or would even get interested let alone excited.
- Seth: So they thought you were a detective, a real detective, right?
- Sophia: Actually that question was asked by one of the kids. Let me continue the story. I’ll use Sam as a stand-in for students and Dr Sawada for the professor.
- Sam: Are you a real detective?
- Dr Sawada: I can’t really tell you too much. I can show you my card though.  
[I had made a special “business card”. All it had on it was “Dr Sawada, TPD”. Luckily, the teacher had introduced me as “Dr Sawada” so the card was consistent with what she had said. I showed the card to one of the students and asked him to read it out loud. Another student then asked:]
- Sam: What’s TPD?
- Dr Sawada: I’m sorry, but I can’t reveal that.  
[An aura of mystery and a bit of awe settled silently over the classroom. I let it hang. The sense of awe and even of secrecy was potent – detectives can’t be totally open about their work. In my scenario, the acronym TDP stood for “Tokyo Police Department”. I chose not to reveal that at this point. The sense of mystery grew even thicker. A new sense of place was taking

place, almost as if it were coming out of the atmosphere.  
Instead I asked:]

When do detectives do most of their work?

Sam: At night.

Dr Sawada: Why at night?

Sam: Because that's when criminals come out.

Dr Sawada: Right on. That's why detectives have to be good at detecting at night when it's dark, too dark to see well. If it is dark out, how can a detective see?

Sam: With a flashlight.

Dr Sawada: That's an idea.

Sam: But if you use a flashlight you'll be a sitting duck!

Dr Sawada: You've got a point there.

Sam: Maybe you could use your hands and feel your way.

Dr Sawada: Yes, you could use your hands to "see". A terrific idea!  
Guess what I have in these bags?

[In preparation for this "lesson" I had selected 12 wooden blocks in 6 different geometric shapes: cubes, ellipsoids, prisms, pyramids, cylinders, and spheres. I had 2 identical copies of each shape. I placed one copy of each shape into a cloth bag of its own so that it couldn't be seen but could be touched. I placed the six cloth bags on the ledge of the chalkboard. I held up the other six blocks in my hand one at a time placing them on a table at the front of the class.]

Dr Sawada: In each of the bags is one of these suspects but you can't see which one with your eyes.

Sam: But we could see it with our hands!

Dr Sawada: What do you mean you could see it with your hands?

Sam: We could feel it with our hands!

Dr Sawada: Who would like to try?

[Hands began waving excitedly. Each student got a chance to come up, feel a block within a bag and then select the visible one on the table that matched thus "identifying" the suspect. I congratulated them all telling them that they all showed signs of being real detectives - they could see without seeing!]

- Sophia: I could continue with this story but perhaps I've said enough to set the scene.
- Seth: I also see that in setting the scene you smuggled in a little geometry – some of the *What*.
- Sophia: Yes, but the children weren't thinking about geometry; they were seeing with their hands. That was what was important in this place. Geometry was the *What* but the *What* wasn't the focus. Nevertheless, the students were learning it anyway as an aspect of establishing the *Where*. That's one aspect of the *Where* that I really like: You get the *What* without focusing on it. Kind of Zen-like. As you might expect, over the next few lessons, the classroom was transformed into a "Detective Agency" – a particular kind of *Where*. Along with that, each student became a detective – a particular kind of *Who*. Along the way a whole bunch of geometry and other math was learned. As well, a lot of language skills and science concepts were developed and used because they were needed.
- Seth: Sorry for being a bit skeptical but did all the children succeed in seeing with their hands?
- Sophia: I'm glad you asked because I was surprised they all succeeded, especially because the teacher had told me three of the students were special education students integrated for mathematics. I didn't ask who they were and I still don't know. In any case, it didn't matter – they could see with their hands. The *Where* didn't discriminate special education students from the others. They were all immersed in the detective agency.
- Seth: That's interesting – the *Where* kind of created an even playing field so that the usual "diagnostic disabilities" and the labels we brand kids with seemed irrelevant. Is that right?
- Sophia: That's a neat way of thinking about the *Where* – it creates an "even playing field" like democracy or equity apparently does for all of us. The typical *Where* – the regular classroom – has all sorts of built-in presumptions and restrictions about what kids are allowed to experience. On the other hand, a different *Where* could change all that. We could explore different *Where*'s – some could be quite "emancipatory" as well as participatory.
- Seth: That word "emancipation" triggers a lot of thoughts, especially thoughts about gender relations and other forms of "oppression". I still see these as major problems in current education.

- Sophia: Yes, the *Where*'s that currently dominate the world come with a lot of hidden baggage! It's amazing, however, what a shift, even a little shift, in the *Where* can do.
- Seth: Yes, but let me get back to your Detective Agency as a *Where*. I can see how a detective agency really does support "agency" in general and supports the learning of math in particular. Detectives solve mysteries; in math class, students solve problems. Solving cases and solving problems aren't very different. Being a detective and being a problem solver are quite compatible.
- Sophia: And a detective agency is just one such place. Many other *Where*'s could also become places in the classroom: For example, a trading post, a collector's club, a space station, a fire hall, a toy factory, an Olympic Games, and so on.
- Seth: And these you say are places *Where* mathematics occurs in real ways, or should I say "natural" ways?
- Sophia: I like both terms, and I'd add another: In "culturally meaningful" ways. The *What* (mathematics) arises naturally in contextually meaningful ways depending on the place. For example, in a toy factory, toys are marketed, ordered, packaged and shipped. How do we package toys? In a box should we arrange them in two rows of six, or three rows of four? And what if you stack these boxes into crates for shipment. How many layers in a crate? How should we package a shipment of 144 toys? How about 1192? What about 1000? Are some ways of these ways more economical? Should we have "standard" shipping quantities? Should we charge more for "odd ball" sized orders? Mathematics galore and it arises naturally in day to day tasks in a toy factory.
- Seth: I love the way math seems to be everywhere but I'm having a bit of difficulty with your use of the word "natural". You are using it as if the classroom, when set up as a detective agency or toy factory, is a "natural" setting in a school. Certainly, it is "real" in the sense that the kids made it come about but it is by no means a real detective agency. I could even say it is contrived. Indeed, it has to be contrived – detective agencies don't exit naturally in schools!
- Sophia: Believe it or not, I agree with everything you just said. I agree, not just to sound positive, but also because there is something very artificial about school, and perhaps even more importantly, about mathematics. Both require an attitude of "Let's Pretend".

As I see it, schooling is just one big “Let’s Pretend” - we take kids out of their daily life and force them by law to come to school five days a week. What they encounter in school is one huge “If”: If what we do in school is valid and important, then what they learn will be useful for students sometime in the future. Often, however, and for far too many students, the “then” part doesn’t happen and schools are criticized for being irrelevant or out of touch with “reality”.

- Seth: It strikes me that what you are calling the “If” is simply what we call the curriculum, the *What* and the *When* of traditional schooling.
- Sophia: Exactly, and when the *What* is found wanting, we don’t question the traditional classroom structure, we merely fiddle with the *What* and perhaps the *When*, the curriculum as you say, trying to get it right.
- Mathematics too is one big “If”. The “If” part is usually called the “Premises” or the “Axioms” and the “Then” part, the conclusions. Over the centuries, as mathematicians conjured up interesting conjectures, mathematics became one huge “If-Then” sequence: Axioms giving rise to theorems, which when proved, became the body of mathematics. We might say mathematics is one big “Land of If”. A very contrived Land of If because any “If” is okay as long as it leads to interesting conclusions. A great mathematician is then someone who can contrive powerful “Ifs” and derive elegant “Thens”.
- Seth: If I understand you at all, then places like the Toy Factory are also contrived “Lands of If”?
- Sophia: And each such place needs to be a powerful “Land of If” if rich mathematical results are to be generated. As a teacher, I would encourage students to participate fully in setting up these Lands of If. They will then be the “resident pioneers” in the Lands they create.
- Seth: Actually, in any walk of life such as business, politics, or schooling, whatever context we set up will somehow be contrived; otherwise we would not have to set them up. But within these contrivances, within these games, some “natural” things can happen; things that are natural within the game.
- Sophia: I really like your metaphor of a “game”. It is much like playing a game and, if you are to be a good player, you must understand the rules and conventions well. It would be even better if you could participate in designing the rules - in designing the game.

Then not only would you understand the game better, you would probably be an excellent player as well.

- Seth: You may not like this example but you're making me think of Wall Street. Seems to be a place where the big boys who play the game also design the game according to their priorities.
- Sophia: And if you wonder why the big boys play so well, it might have something to do with the fact that designing games and getting others to play them is pretty much what they do. The games they design have become notorious as well as earth shaking.
- Seth: Are you talking about "Asset Backed Commercial Paper"?
- Sophia: Yes, that and a whole slough of other "spin-off" games or "derivatives" that others were conned into without having the foggiest notion of what kind of game they were sucked into.
- Seth: Not a very even playing field, not like the democracy we talked about. So, what do we have to learn from a place like Wall Street?
- Sophia: If I were Barack Obama I'd likely have something positive to say. Not having any high paid advisors to call upon, I'm afraid all I can say is that we can take comfort in the fact that, unlike Wall Street, making a profit is not the purpose of education, at least not in most countries, although admittedly, that is changing. Nevertheless, it might be a good idea, perhaps in high school, to set up the classroom as Wall Street and see where that takes us. Who knows, we might end up talking about ethics as well as economics and maybe education as a corporate enterprise.
- Seth: Education as a corporation! Sounds scary to me.
- Sophia: But not as scary as democracy as a corporation. And I dare say, the democracies of the world are already drifting that way.
- Seth: All the more reason for setting up the classroom as Wall Street! That way kids can get a potent dose of a culture that is "too big to fail". And incidentally, there would be a pile of mathematics and strategic thinking going on, and other kinds of deeper thinking too! And speaking again of mathematics, how in general do we bring it out of a place?
- Sophia: Great question. But could you hold that query till be get to the *How?* I think the answers can be found there.
- Seth: Okay, let me raise another point. Currently, there is a strong emphasis on the notion of integration, of not teaching the

subjects as if they were all separate. But if we start with the *Where*, the subjects are not separate in the *Where*. In a Trading Post the art, the history, the science, the social studies, the language are already “all there” connected naturally. The problem of integration doesn’t even exist because the subjects are not separated.

- Sophia: So why have we created the need for integration?
- Seth: Because we have been starting the whole enterprise with a bunch of *What’s* – things we call “subject areas”. If we start with them as givens, then we CREATE the problem of integration. If we don’t start with all these *Whats*, we wouldn’t have the problem!
- Sophia: So the problem of integration is just an artifact of having begun the educational narrative with *What*. Having spent decades developing and packaging each *What* as an important piece of subject matter, often all on its own, we have manufactured the need for integration.
- Seth: We shouldn’t lose sight of the fact that this problem is a by-product of the traditional classroom story – collateral damage that now needs repair.
- Sophia: Perhaps we have been extolling the virtues of *Where* long enough. How about the *Who*?
- Seth: Yes, the *Who*. And I don’t even need to guess. The *Who* are the people who develop the *Where*: mostly the students but with the guidance of the teacher. Because the *Where* is created in the classroom by the students and teacher, they are the *Who*. They must be actively involved in creating the place, in creating the contrivance (even though they aren’t thinking of it as a contrivance). They are creating a Detective Agency right in the classroom, becoming detectives as they do so. Have I got it right?
- Sophia: That’s exactly what happened in my little experiment as “Dr Sawada, TDP”. At the close of that first visit, I asked the students to bring some “detective stuff” with them for my next visit to help us set up a detective agency (because all of them had what it takes to be real detectives). A week later on my next visit, I was happy to see kids had brought all sorts of stuff: flashlights, measuring tools, binoculars, dark overcoats, rubber gloves, and so on. I was somewhat disappointed, however, when the boy who thought I was a “spy” showed up wearing two baseball hats. Not too connected I thought. But hey, kids will be

kids. But then I saw him in profile: One brim was low over his forehead and the other low over the back of his head. "Sherlock Holmes"! I was surprised and elated. He had used very ordinary "stuff" and created a detective motif out of it. It was a great start getting the *Who* into the *Where* and the *Where* out of the *Who*.

- Seth: So you are saying that an ecosophical classroom is as much a place created with and through children's experiences as it is a program?
- Sophia: That's a good way of putting it. The narrative structure of ecosophical educating begins with *Where/Who* so that the classroom can become a particular kind of place, a place that enriches as it contextualizes the very learning it brings forth. In actively designing and constructing the place, children learn mathematics; or more generally, in constructing the context, they learn the text. And through it all they experience the value of the place as the original settlers.
- Seth: I like the phrasing: "In constructing the context, they learn the text". It says it so compactly. But ecosophical educating isn't all context is it? Children are also doing something in the classroom besides constructing the place. How does this kind of doing differ from the usual activity in a normal classroom?
- Sophia: That question moves us directly from the *Who* into the *Why*. You've already put your finger on it in the way you asked your question. The activity in a place is quite different from the traditional activity in a math lesson. Consider the usual scenario where a student is given a task card together with some manipulatives and is to do the activity as specified on the card. The activity could be done anywhere – at home, in a group with other children, alone at a desk, after school during detention. The particular place doesn't much matter – just do it. What is important in today's math classrooms is to have kids using aids of all sorts (concrete, graphical and symbolic) to make the math more accessible. This is the important principle.
- Seth: How does context make it different?
- Sophia: I think the context makes a huge difference because, not only is it created by the kids, but because of that, the context necessarily embodies *Who* the kids are and consequently *What* the kids already know. They bring stuff from home, from whatever they know to create the detective agency. Children know the context because they created it. Therefore, a lot of the "knowledge" in the context is what they already know – no need

to “diagnose” a child’s previous knowledge – let them reveal it as they construct the place.

- Seth: I like that turn of phrase: “Let them reveal it”. Letting them reveal it sounds a whole lot more authentic and more inclusive than me pretending I’m some sort of expert diagnostician able to pin-point knowledge deficits or learning disabilities. Building the place together, I think I can both understand how they participate in the building process and help them to carry on. Of course, I’d have to learn a bit about detective agencies!
- Sophia: A visit to a local detective agency might help. It helped me a lot.
- Seth: And the more I understand about detective work the more I would understand how the “text arises from the context”. I could see, for example, that their actions were actions of detectives solving a case, which of course would be quite different from the actions of say barbers or sales associates doing their thing.
- Sophia: Exactly! And questions such as, “Why did you do that?” or “Why is it important to do it this way?” find their answer in the context, in the detective frame. If, for example, a child were to ask, “Why do I need to write this up? I already know the answer!” the teacher, as Chief Detective, might say, “When a detective is working on a case, does she keep a record? Why? Is it important to record observations? Does she need to keep a file, file a report?” Students might even visit a local police station and observe, not only what records are routinely kept on a crime, but the format of the reports.
- Seth: So there is activity that is indigenous to the place and its indigenousness makes the activity different from ordinary classroom activity?
- Sophia: Exactly. As you know, indigenous activity is the opposite of activity imposed from the outside justified by an “authority” no one really knows nor understands.
- Seth: Authorities who impose their expertise as the *What*, *When* and *How*! The task for the teacher is to make it all interesting – make it into a game of some sort. Make education into entertainment!
- Sophia: Just like television: Even the newscasts are cast as “entertainment”. I find it ironic and revealing that 20<sup>th</sup> Century Fox calls itself “A News Corporation”.
- Seth: And we have resorted to the entertainment mode because we don’t bother to construct supportive contexts that allow the

activities to be educational. This leads me to another example of a *Why* question that has been a problem for me. I like children to be neat, to be careful in what they do, to think about what they are doing. One of my weaknesses is to become impatient when a student does sloppy work and is happy with it. Now, in the context of a detective agency, I could simply say, "Why do detectives need to be careful when they gather evidence or write their report?"

- Sophia: An excellent example. I know that trying to teach students to be careful or mindful of the need to be careful, is worse than pulling teeth. But then, why should they be careful as long as they get the right answer? However, in the setting of a detective agency, being careful is endemic to the place. Shoddy work is a no no. Otherwise the case may be thrown out of court on a technicality!
- Seth: Trying to impose carefulness can be next to impossible, and yet in the traditional classroom narrative, this is what I am forced to do.
- Sophia: And as important as carefulness is, it is just the tip of the iceberg.
- Seth: I know what you're going to say! The thought just hit me that carefulness is just one small example of something much larger. The big thing is values, morals, ethics- those things that are so very important in life but so difficult to teach.
- Sophia: Yes, extremely difficult to teach but the difficulty, I believe, arises when we try to teach values or attitudes as if they were *Whats*.
- Seth: And too often we end up telling them *what* to do even as we do otherwise! But if the *Where* is the priority, we can "walk" the *Where* and see *What* kind of talk that generates. When the *Where* generates the *What* we can have an authentic conversation among natives.
- Sophia: Natives creating the "culture of the classroom" as they bring forth the *Where*?
- Seth: And that culture contextualizes everything, including the "right and the wrong", the "why and the wherefore's",
- Sophia: And "the good, bad, and the ugly"!
- Seth: Finally, an authentic classroom culture!

- Sophia: Authentic? I hope so. I think that would depend though on just what sort of places we bring forth.
- Seth: But perhaps it is an authentic place for ecosophical educating. And on that note, let me be more practical. I can see how questions of *Why* find their answer embedded in the nature of the place. But what about *How*? . . . Oh yes! I see. *How* is also embedded in the place just like the *Why*! Of course! How students do things is already implicit in being the *Who* they are: detectives solving cases. *How* for the teacher is also already embedded in being the Chief Detective – she helps to organize things, managing the agency, assigning cases, receiving reports, giving advice, rewarding good work, chairing meetings, finding new cases, handing out merit badges, organizing the Agency Christmas Party!
- Sophia: Yes, she essentially “runs” the place, perhaps as a “founding mother”.
- Seth: This all sounds promising and I like how it is different. I particularly like how the students become the experts instead of merely doing what outside experts prescribe. But for me the final concern comes back to the *What*? How do we ensure that we can “cover the curriculum” as specified by the government and school board?
- Sophia: Cover the curriculum. Indeed, that is the final question and often the first question. I see this concern as a matter of packaging. Through ecosophical educating the curriculum is brought forth in the creation of and then the living in a place. Instead of handing the teacher a curriculum guide and a set of resources to cover all the objectives, the teacher could receive a set of “Place Guides” – a set of handbooks to help her and her students set up particular places. The *What* could be embedded in activities that occur in the places. Once upon a time, I organized six different places and developed a set of indigenous activities for each. All the mathematics specified for grades 4 to 6 by Alberta Education was “covered”. Along with that, many of the objectives specified in the art, science, language, social studies, physical education, and health curriculum guides were also covered.
- Seth: Is that right? How come I haven’t heard anything about these resources, these place guides?
- Sophia: I guess I’m a pretty poor salesman.
- Seth: But really. Do these “Place Handbooks” exist?

- Sophia: Yes, there is a set of six handbooks and associated resources for teaching mathematics in a way that is integrated with the other subjects for grades 4 – 6. They were produced in the mid 1990's but were pretty much incompatible with the traditional classroom narrative. By producing them, and trying them out with several teachers, I demonstrated to myself if not to anyone else, that it could be done.
- Seth: Kind of like doctoral dissertations!
- Sophia: Yes. And like doctoral dissertations, I have copies on bookshelves in my basement.
- Seth: Maybe you should dust them off.
- Sophia: I'm enjoying my retirement too much!
- Seth: My spare is over now. I must get back to my classroom such as it is. Can you "sound byte" our conversation in 50 words or less?
- Sophia: Sure, I'll pretend I'm doing an "in-depth" analysis for a TV interview. Through ecosophical educating, the *Where* and the *Who* jointly become the medium, the place in which and through which the *What* is learned. We don't begin by teaching the *What* and then try to be sure all students are paying attention and staying on task. Rather, with the help of the students themselves, we begin to build a place, a context, in which the *What* will arise spontaneously as text. For students to be "on task" is simply for them to be doing what is appropriate in such a place. Because each student is an original settler and creator of the place, appropriateness is something indigenous to their understanding of the place.

Let me scaffold all this in the form of a chart:

## Narrative Structure of Traditional Education and Ecosophical educating

<b>Narrative Structure 1:</b>		<b>Traditional Education</b>
<i>What</i>		Program of Studies (the Curriculum)
<i>When</i>		Scope and Sequence Chart
<i>How</i>		Instruction
<i>Why</i>		Fits the Scope and Sequence Chart
<i>Who</i>		Teacher instructing Children
<i>Where</i>		Classroom
<b>Narrative Structure 2:</b>		<b>Ecosophical educating</b>
<i>Where</i>		Places created as living contexts
<i>Who</i>		People who construct the Place
<i>Why</i>		Because the behaviour is appropriate in the Place
<i>How</i>		Actions indigenous to inhabitants of the Place
<i>When</i>		As things happen in the Place
<i>What</i>		Culture embedded in and important to the Place

Seth: Thanks for the conversation.

Sophia: It wouldn't have happened without you.

In the hypothetical conversation composed here we described a narrative structure within which ecosophical educating might unfold. Yet the stories told are not so imagined. The part played by Professor Sophia is indeed first author Daiyo Sawada. The part played by Seth is second author Jeanne Kentel a former classroom teacher and postgraduate student of Dr. Sawada. Our example may be more useful in the bitterness of winters where out of doors explorations are considered unsafe. Yet when pursuing this sort of not so hypothetical story we hopefully deepen our understanding of Ecosophy or the fusing the love of wisdom with our dwelling place or home. As a benefactor of the 'Sawada' method, I (Jeanne) have learned to dwell in the place and seek ecological wisdom. As we now have different life and educational roles we continue to ask, "Can the love of wisdom be taught?" Rather than attempt a response we leave readers with the challenge of

creating classrooms where children can wonder, seek, and cultivate themselves and the earth – a place to call home.