Educational Philosophy

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When I was a kid a typical school day for me was an emotional rollercoaster. I'd spend most of the morning listening to lectures or diagramming sentences or practicing my cursive. I hated it. But I kept an eye on the clock and soon enough the recess bell would ring. My friends and I would choose up teams and we'd play. We'd play football, or basketball, or kickball, or whatever. It didn't matter what the game was as long as we were playing. I loved it. But then that darn bell would ring and we'd have to go back to class and read a story or answer questions in the history book. Before too long, though, it was time for PE and we'd head into the gym. So I'd get to spend some more time driving to the hoop, or diving for a catch, or high-sticking my buddy Rick. It was a blast! But then Mr. Abermite would blow the whistle and we'd have to go back to class for more lectures and assignments. Finally school would let out and the misery was over. I'd head outside for more games in the afternoon and if I was really lucky there'd be practice that evening.

As a kid I loved to play any sport, but I especially loved to play basketball. I couldn't get enough of that game. Not only did I love it, I was also pretty good at it. I had become a better player; my skills were improving. Even though lots of my classmates were better than I was, by Daly family standards I was becoming very good. The only way any of my brothers could beat me was if they cheated. My sisters couldn't beat me, and they were both tall and lanky.

When you're in the 6th grade you don't think much about irony, but I think about it now. It's ironic that as a 12 year old I was probably learning more about basketball than I was learning about reading, writing, or math. Why is that? Basketball wasn't like school – it was just a lot of

fun. I loved it. No one was forcing me to play basketball. I wanted to play. (My parents were consistently apathetic about the whole thing.) I didn't have to complete a single worksheet about the history of basketball or watch filmstrips about NBA players. I just played. And even though I had a coach and he regularly gave me lots of helpful feedback, he didn't grade my performance or send home progress reports. I was improving as a basketball player despite all of this. Or was I improving because of it? I became a teacher in large part because I believe the latter, as my beliefs about learning suggest.

Active construction of meaning results in long-term, transferable understanding.

> *"I wanted to become one of the best guards in the NBA. In order to accomplish that, I had to increase the intensity of my workouts. I was at the gym every day over the summer for four to five hours a day. I worked on everything, strengthening my legs, building my upper body. Everything."* – Michael Redd

I'm Catholic, but sometimes I don't enjoy going to Mass. If the homily and readings aren't interesting I don't get much out of it. I hear the words, but the messages don't stick.

This is the dilemma faced by millions of kids in schools. They're not spending enough time actively constructing meaning. Absent of active construction, the learning that occurs is short-term, and it rarely transfers to experiences outside the classroom. Many students, for example, can regularly memorize lists of challenging spelling words, but they misspell common, everyday words when they write a letter or record entries in a science notebook.

When meaning is constructed actively, however, real change occurs. Jean Piaget described the active construction of meaning (constructivism) as the creation of new cognitive structures in the brain stemming from a need to reach equilibrium. We make "sense of our world by synthesizing new experiences into what we have previously come to understand" (Brooks and

Brooks, 2001, p. 4). We try to "make it fit". If information is to have meaning it "must be mentally acted upon" (p. 27). When students are simply passive receptors of information, the learning isn't meaningful, and it doesn't last.

One of the problems with relying simply on memorizing; formulas, or the periodic table, or pages of notes, is that it usually won't result in long-term understanding. When comparing performance (memorization) to learning, Katz (1985) and Gardner (1991b) contend that an "emphasis on performance usually results in little recall of concepts over time, while an emphasis on learning generates long-term understanding" (cited in Brooks and Brooks, p. 8). A classroom dominated by teacher talk (or a church for that matter) doesn't promote active construction of meaning and it doesn't promote long-term understanding.

Learning occurs when concepts are relevant to students.

"I love basketball more than anything else!" – Magic Johnson

Earlier this year I wanted my students to learn about fact and opinion. I told the kids that our principal, Ms. Amick, had outlawed football at recess. I suggested that we could write a letter to Ms. Amick in protest, but we needed to first generate a list of reasons why football should, in fact, be allowed. Wow! Were the students ever engaged? They generated a list of reasons a mile long! As I had hoped, some of the statements on the list were factual while others expressed an opinion. Since I had told them that the factual statements would probably be the most convincing, the students became very interested in distinguishing fact from opinion, and they were able to do just that. In very short order they correctly generated the two separate lists. My lesson had been a success because the concept was relevant to my students.

For a concept to be relevant, I believe it must be interesting or important or both. In the example above, generating that list of reasons was relevant to my students because it was both interesting and important. They're interested in football and they really wanted to write a good, persuasive letter.

In their book, In Search of Understanding: The Case for Constructivist Classrooms (1999), Jacqueline and Martin Brooks write that "posing problems of emerging relevance is a guiding principle of constructivist pedagogy" (p. 35). They believe when concepts are relevant to students, quality learning results. There are several reasons why.

First, if a concept being studied is relevant, students are naturally more engaged and "they are more likely to put forth the required effort" (McTighe and O'Connor, 2005, p. 17) and to consequently develop a better understanding.

Additionally, when concepts are relevant the learning tends to last. If relevancy is the goal, teachers seek to ask bigger questions and they give students more time to think about their answers. Students are expected to construct their own understanding. When they do, it lasts and is more easily transferred to new experiences (Brooks and Brooks).

Finally, when teachers develop activities that are relevant they "set the stage for subsequent lessons" (Brooks and Brooks, p. 38). Students essentially have something to "work with" as they pursue concepts in more depth.

I am now much more committed to helping students become genuinely interested in the concepts we study. This has led me to reconsider some of my teaching practices. There are several changes I've made. For example, I now incorporate more choice than ever into my writer's workshop. Students not only get the chance to choose their own topics, they also make decisions about their target audiences as well as the form of their writing (Anderson, 2005). In

reading, after a student finishes a piece of nonfiction, I try to take advantage of his interest in that topic, and more regularly encourage him to pursue the concept further. In math I incorporate more problems that can be solved in multiple ways depending on the strengths and interests of individual students.

An ecosystem unit I teach in the fall is a good example of a unit I've refined to exploit the interests of my 10-year old students. For this unit, the concepts described in the teacher's guide are fairly broad. They relate to the ecosystems of plants and animals. I focus the unit on the ecosystems of crawdads. It turns out that fourth graders are very interested in crawdads. In previous years a large portion of the unit would revolve around various experiments my I had devised. The kids made predictions, performed the experiments, recorded data, etc. All of the info was collected in folders that we collected and graded. This year I made a small change that made a huge difference in terms of relevancy. I let the kids create the experiments. I simply asked them what questions they had about crawdads. We categorized the questions (some would've been a little difficult for us to answer) and then the students devised experiments to help find answers. The kids had a blast. They were fascinated by crawdads and couldn't wait to find more answers to their questions. At night or on the weekends, many students visited nearby creeks or lakes to collect their own crayfish. Many performed experiments at home and reported the results to the class. It was great to see the kids so excited about a topic we were actually studying in school.

An interesting byproduct of the unit was that external motivators were totally unnecessary. It was nice that I didn't have to coerce students into performing the experiments by making threats. In fact, I believe the non-threatening nature of the unit actually improved learning.

Students reach high levels of understanding when the environment is non-threatening

> *"You know what the biggest gifts of the great athletes are? Their love and passion for the game. If you said to Larry Bird, 'You know what, Larry, you gotta go out and shoot baskets and practice for two hours.' You know what he'd say? 'Take a flying hike!' But if you say to him, 'Are you going to go to a movie tonight, are you going to go out with the guys for dinner?' 'No I'm going to shoot baskets,' he might say. That was his passion. He didn't think he was practicing."* – Wayne Gretzky

Every year at "Back to School Night" I have a calculator prominently displayed in the classroom. I tell the parents that I bought it at WalMart for 99 cents. I suggest that their children, my students, are worth more than 99 cents. Since I consider myself a constructivist teacher, I let them figure it out.

Fifty years ago clerks were hired to perform basic math calculations. Accountants spent much of their day meticulously adding debits and credits to see if they matched. Good secretaries were also good spellers. Carpenters couldn't make a living if they couldn't add and subtract. Times have changed. Thanks to computers, calculators, and other technological advances, low level thinking skills aren't as important as they used to be. And of course, critical thinking skills are even more important. Today's teachers and students should aim for high levels of understanding. This is most easily attained if the environment is non-threatening.

In their book, Making Connections: Teaching and the Human Brain (1994), Renate and Geoffrey Caine content that when students feel threatened (afraid) they will "downshift". They define downshifting as a "psychophysiological response to perceived threat". When students downshift they revert to the "tried and true". Their responses are more "automatic and limited". Students are less able to "engage in complex intellectual task, those requiring creativity and the ability to engage in open-ended thinking and questioning". Downshifting "appears to affect many higher-order cognitive functions of the brain" (p. 58). "Downshifting, in large part, is the

reason students fail to apply the higher levels of Bloom's Taxonomy" (p. 59). So when students feel threatened by the potential of a failing grade, or an unfair deadline, (or by a cranky teacher), they downshift and higher level thinking is inhibited. Students become dependent on taxon memory and the learning is mostly memorization (p. 63). This may have been somewhat acceptable fifty years ago when so many survival skills were, in fact, "automatic and limited", but not today. With calculators, computers, and other technologies, students need higher level thinking skills. And the learning environment should be non-threatening.

Teachers can help to ensure that the environment is non-threatening and students will achieve higher levels of understanding by creating the right conditions. First, most outcomes and activities should be open-ended. When specific right and wrong answers are the norm, students will feel threatened by the potential of coming up with the wrong ones. Also, the learning should be relevant to the students. If it isn't, teachers will be left with little choice but to create extrinsic motivation (rewards and punishments). Additionally, many tasks should have "relatively open-ended time lines" (Caine and Caine, p 71). Students feels threatened when they are constantly "under the gun" to meet teacher imposed deadlines.

In addition to assigning more open-ended activities, I've reconsidered how I use extrinsic rewards (and punishments). I'm much less reliant on them when the goal is higher order thinking. For example, I no longer grade pieces of writing that students "publish". Of course, I'm involved in the creation of the story; conferring, offering feedback, etc. I also provide students with rubrics to self-evaluate their pieces, and they are encouraged to share their stories with their classmates. But the pieces aren't graded. So far, the results have been encouraging. If the topic is relevant to students (and it's much more likely to be relevant when it requires lots of high level thinking), I find that extrinsic motivators are rarely necessary.

No one had to force Larry Bird to practice left-handed layups. He wouldn't get grounded by his mother when he didn't shoot 100 free throws before dinner. His love of the game was all the motivation he needed. Larry Bird didn't become one of the greatest basketball players of all time because of threats or coercion. And threats and coercion aren't particularly effective for students either. If we want them to become great thinkers we must provide an environment that is safe, comfortable, and fun.

Even though I never challenged Larry Bird for the MVP, I actually became a pretty decent basketball player. My skills continued to evolve for many years even after I finished High School. I believe this is mostly because of the conditions that existed when I played. First, I played all the time. I didn't attend a lot of clinics or read a bunch of books, but I played all the time (active construction). Also, because my teammates and I wanted to win so badly, I was constantly evaluating my game and making adjustments to improve it (frequent, timely assessment). Finally and most importantly, no one had to force me to play (non-threatening); I played because I loved it (relevant).

My ultimate goal is to create similar learning conditions for my students. I envision kids attending class not because their parents force them to, but because they want to. They're in class because they love to learn. I dream about students that are so engaged in their learning; for whom learning is so important, the dismissal bell will be mostly an annoyance. Even though I'm not there yet (and I know I never will be), I do know that as I refine my teaching and align it more closely with my beliefs, I'm definitely getting closer.

Not too long ago I got a call in my classroom from the secretary. I was with my students reading to them. It was soon after the opening bell had rung. She said that Mrs. Hyde was in the building and she was taking Alan Hyde home because he was sick. Alan's brother, Mason is in

my room. I was supposed to look at Mason and see if he looked a little peakish. If so, he could join his family and go home. Instead I just asked him if he wanted to go home. He didn't hesitate. He said "No." Best answer I've heard all year.

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