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Helping Students Develop an Appreciation for School Content

The topic of content appreciation (i.e., developing a broad valuing of curricular content) has not received the attention it deserves. In this article, the authors present Brophy's (2008a; 2008b) model of content appreciation in the context of a hypothetical case study of a teacher trying to foster content appreciation. In doing so, they illustrate and discuss 3 principles central to Brophy's model: (a) teaching worthwhile content, (b) framing content to stimulate appreciation, and (c) scaffolding appreciation within the motivational zone of proximal development.

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“WHAT DID YOU THINK of the weather unit?” Monica asked two of her sixth-grade students. Monica was a veteran middle school earth science teacher, and the two students were some of her better students. They had volunteered to maintain the saltwater aquarium, which is what they were doing now.

“It was OK,” mumbled Blanca as she tested the pH and alkalinity of the water.

Monica glanced at Acadia who was recording results in a logbook. “Yeah, it was all right.”

“Wow. You really gave it a ringing endorsement,” Monica replied sarcastically.

Acadia laughed. “It’s just that it’s weather, you know? It’s not that new.”

“And it’s not that relevant,” remarked Blanca.

“Not relevant?” Monica asked with exaggerated dismay. “It’s weather! You experience it everyday!”

“But you don’t need to *know* about it to experience it,” stated Blanca.

Acadia jumped in, “Yeah. It’s like, ‘Snow day! Awesome!’ We don’t need to know what *caused* the snow.”

Monica shook her head, “But what if you wanted to know if there is going to *be* a snow day?”

“Uh, that’s what the Weather Channel is for,” responded Acadia.

“It might be useful for camping or something,” commented Blanca, “because then you don’t have a TV or anything.”

“My dad just always makes me bring my raincoat,” replied Acadia. “It’s like a family joke. There won’t be a cloud in the sky and Dad is still like, ‘Grab your raincoat. It’s going to rain this afternoon.’”

“But don’t you want to know *why* it often rains in the afternoon in the mountains?” responded Monica, getting more animated. “Wouldn’t that make it more interesting or . . . I mean, isn’t that worth knowing?”

“Maybe, I don’t know. I never really thought about it,” replied Acadia.

“Me neither,” chimed in Blanca. “Weather is probably important if you’re going to be a weatherperson. But I’m not planning on being a weatherperson so I don’t think about it. I mean, I think about weather, but not what causes the weather.”

Later that day, Monica recalled the conversation and was troubled by her students’ responses. Further, she was troubled by being troubled:

Why should I care that much? I know they’re learning the content. It just seems like lately it’s been eating at me that the students don’t appreciate what they are learning. They don’t value it, at least not in a personal way. They know it’s important, but they just go through the motions. I want them to be inspired by it or maybe just recognize that these science ideas can make life more interesting and exciting. I don’t know, maybe I’m being idealistic.

Developing Appreciation for School Subjects

Like Monica, many teachers are disappointed when their students do not appreciate the content, even if the students are able to demonstrate that the material has been learned. A number

of individuals go into teaching because they developed an appreciation for particular subject matter and want to share their interest with others. Hence, disappointment is a predictable response when, as so commonly occurs, students fail to appreciate the value of the content taught.

One of the many legacies of Jere Brophy (1999; 2008a; 2008b) is that he advanced a general framework for understanding and developing content appreciation. He recognized the frustrations experienced by teachers like Monica and the lack of scholarly knowledge about how to address sources of such frustration. Consequently, he analyzed related research, identified gaps in the research, and began to develop a theoretical model of content appreciation to fill in those gaps. In this article, we hope to make this theoretical model accessible to teachers and those in the education profession by summarizing some of the key ideas and discussing them in the context of the hypothetical case of Monica.

Brophy (2008a) generally defined content appreciation as developing value for the content and coming to view the learning process as a worthwhile endeavor. Value, in this case, refers to more than just utility value (i.e., valuing content for its usefulness in reaching other goals—e.g., career or admittance to college). It consists of such things as “the satisfaction of achieving new insights, aesthetic appreciation of the content or skill, or awareness of its role in improving the quality of our lives” (Brophy, 2008a, p. 133). In addition, the concept of content appreciation focuses on cognitive aspects of engagement (e.g., satisfaction, self-realization), rather than solely on affective aspects (e.g., fun, pleasure). Brophy posited that the affective aspects should be based on such things as making a connection to the content or developing a sense of empowerment after grasping the content, instead of a sense of being entertained in the classroom. This does not mean that a learning environment cannot be emotionally engaging for students in its own right. It just means that such engagement is futile if it has no cognitive grounding. In sum, the goal of instruction should be to increase students’ understanding of the content, appreciation for why the content is being learned, and application

of such content in students' everyday, out-of-school lives.

What Is Worth Teaching?

Smack! Monica dropped a textbook on the table in front of her colleague, Chuck. The textbook was opened to chapter 14, *Rocks and Minerals*. "You're a geologist. Tell me what's worth learning in there."

"Um, what's this all about?" asked Chuck apprehensively. He looked up at Monica and could sense a feeling of frustration.

"My students couldn't care less about the content. And then, I'm preparing this geology unit and realize I don't even care about a lot of this content! So I need your help. Which of this stuff *should* I care about?"

"You should be asking the test makers," Chuck responded with a sarcastic grin. Monica shook her head and rolled her eyes. Taking the hint, Chuck flipped back and forth through the pages, then responded, "For me, it's all about plate tectonics. That's the big idea."

Monica sighed, "Yeah, I get that, but . . . Let me try a different question. Why did you choose to major in geology? What was compelling about it?"

"Hmm. Well, when I took my first geology class in college, I just thought it was so cool how you could explain the earth. It changed the way I looked at the mountains. I started thinking about the rock layers and the tectonic history and it was like a big puzzle to figure out, to uncover the history."

"Alright, now we're getting somewhere. But what about all this rock and mineral stuff?"

Chuck read through the chapter outline, "Honestly, I don't think the kids need to know a lot of this vocabulary stuff and minutia. But if you understand some of the key processes, you can use it to discover the history. When I visit people's houses and they have these nice granite counter tops—because, you know, they're not teachers—I always check out the granite. I look at the crystal size and think about whether it cooled down deep or near the surface. And I look at the colors too and I'm like, 'Whoa! Look

how pink these feldspar crystals are. That's what makes this such a unique piece of granite.'"

"OK, I'm starting to get it." Monica tapped her lip with a finger and said, "You know, none of this is new. I mean, I already knew about the stuff you're talking about, but I never really put it together. Like the idea that knowing about the minerals and all that can unravel the history or solve the puzzle or just make you strangely obsess over granite counter tops," Monica winked at Chuck. "I never put that together. This gives me something to work with. Thanks, Chuck."

Focusing on Compelling Ideas

Brophy did not articulate a complete model for developing content appreciation, but highlighted three steps that teachers and curriculum developers should take (see Brophy 2008a for a discussion). The first is to teach content worth teaching by asking difficult questions about the value of the content and by making wise decisions about what content should be included. Brophy (2008a) explained,

I believe that students currently do not appreciate or value much of what they learn at school primarily because . . . it lacks sufficient value to justify including it in the curriculum. . . . I also believe that much of the school curriculum . . . does have potential value, but we have lost sight of the reasons for including it. We need to rediscover and articulate the life-application bases for retaining this content and teach it accordingly. (p. 137)

Two implications come from this statement. First, teachers and curriculum developers need to be selective in choosing what to include in the curriculum. Pugh (2002) referred to this as a process of *artistically crafting the content*. Artists craft evocative works by being very selective about the elements they include. For example, of all possible actions and dialogue, a playwright will select those few that are most germane to the desired experience. Likewise, educators can carefully select content with the most pertinent affordances (more on this later). Unfortunately, curriculum developers and teachers often feel

obligated to include everything possible about a topic, making it easy to disconnect content value from the learning experience based on the sheer volume of content covered. The second implication of Brophy's statement is that teachers need to rediscover the value of worthwhile content. Often, teachers simply accept the importance of curricular content without considering the experience it came from or the impact it might have on students' everyday experience. At one point, someone thought this was valuable to teach, but a good question to ask is "Why?"

A key to both selecting worthwhile content and rediscovering its value is to ponder on the *affordances* of the content. The affordances are the opportunities the content offers for such things as solving meaningful problems, seeing the world in an exciting new way, or developing relevant skills. Brophy (2008a) emphasized that teachers should consider and evaluate content in terms of the degree to which it affords self-relevant applications:

The content strand should afford opportunities for self-relevant applications to life outside of school... Note the emphasis on self-relevant applications. Although there are societal (social and civic) benefits to empowering each new generation with knowledge and skills of enduring value, these benefits will not be realized unless individual students appreciate the enduring value and begin to *apply the knowledge and skills in their lives outside of school*. (p. 138, emphasis added)

Unfortunately, much of the content taught has few apparent affordances that are meaningful to students and many students are not able to make these connections on their own. This tends to put the burden on teachers to identify and articulate the meaningful affordances, which is not always easily achieved. Such was the case for Monica regarding the geology unit. Fortunately, her conversation with Chuck helped her consider which content is worth teaching and rediscover the affordances of some of the worthwhile content. It will still take more pondering and conversations, but at least now she is addressing the issue.

How to Frame the Content?

"So how's the geology unit going?" Chuck prompted.

"Still needs work," Monica replied. "I need to figure out how to frame it." She looked up at Chuck, "Have you seen the movie *Dead Poets Society*? With Robin Williams ... from the late '80s I think." Chuck nodded. "So there is this dramatic scene where the teacher introduces the topic of poetry and literature. But he doesn't give an advanced organizer or say anything like, 'This content is important for doing well on the SAT.' Instead, he says something like, 'No matter what anyone tells you, words and ideas *can* change the world' and 'We don't read and write poetry because it's cute, we read and write poetry because we are members of the human race and the human race is filled with passion!' He frames the content, not in terms of its logical structure or utility value, but in terms of its potential to transform his students' lives. That's what I'm trying to figure out. Any ideas?"

Chuck responded with his typical sarcastic grin, "No matter what anyone tells you, rocks and minerals *can* change the world!" Then he laughed, "Actually, that's kind of true when you think about it—wars are fought over such things."

Monica looked pensive. "There might be something there. Hmm. But I've been trying to do something with the whole discovering the history, solving the puzzle idea." She paused and looked up at Chuck. "This may be an 'epic fail' as my kids like to say, but I'm thinking of having all the kids sit on the floor and then holding up a rock and saying, 'Every rock is a story waiting to be read by those with the knowledge to read it. In this rock is a story of creation, destruction, and recreation. A story of power and resistance; stability and change. An epic tale exists in this one rock and I will teach you how to read the tale. When we're done, you will never see a rock the same again!'" Monica looked apprehensively at Chuck, "Too corny?"

"No," replied Chuck. "I think it's great. Of course, some students will think you're crazy, but give it a try. In fact, I might try it too. Now, if

we could only channel some of Robin Williams' charisma"

Emphasizing the Experiential Value of Content

The second step in Brophy's model is to frame lessons appropriately. Framing refers to any action that conveys the purposes and goals of a lesson. In Brophy's model, such framing involves introducing lessons "in ways that include explaining the value and modeling applications of the big ideas or skills to be developed" (2008a, p. 138).

In a review of research, Brophy (2008b) stated that the most engaging teachers did things like relate content to everyday events, express their own enthusiasm for the content, and provide concrete examples of student-relevant applications. Through such actions, they framed lessons in terms of the content's value in students' immediate, everyday experience (i.e., in terms of the valued affordances). Unfortunately, such framing is rare, even among some exemplary teachers (Brophy & Kher, 1986; Green, 2002).

A useful scheme for thinking about what it means to frame lessons in ways that foster content appreciation can be found in the work of Dewey. Dewey (1933) distinguished between concepts (which have established meanings) and ideas (which consist of possibilities; see Pugh & Girod, 2007). As possibilities, ideas generate anticipation about what may be experienced, solved, or understood. Typically, curricular content is framed as established concepts to be learned rather than possibilities to be explored. Consequently, students often approach content from a framework of "here's some more school stuff I need to master" rather than a framework of "here's an interesting idea; what would happen if"

One strategy for transforming concepts into ideas is to use metaphors. Metaphors are fundamentally about possibilities and, as such, they can awaken anticipation about the affordances of the content. For example, concepts such as crystal formation and the rock cycle can be transformed into an idea through the metaphor of "every rock

is a story waiting to be read." This simple framing has a dramatic change on the conveyed purposes and goals of the lesson (see Girod & Wong, 2002, for a case study based on this instructional metaphor).

Modeling is another critical strategy for framing lessons in terms of their value in everyday experience. Such modeling can include expressing enthusiasm for the content, sharing stories of one's own experiences with the content, and describing how one sees the world through the lens of the content. For example, Bergin (2008) described how a favorite teacher modeled his love for zoology and drew him (and other students) into the world of bird watching. Many people can tell a similar story of how a teacher's passion for particular content got them engaged in the content.

How to Scaffold Appreciation?

A week had passed since Monica first introduced the rock story idea. Most students had displayed some interest in telling rock stories and, at Monica's urging, nearly half of the students found interesting rocks on their own and brought them to share. One student even told Monica after class, "I used to think a rock was just a rock, you know, no big deal. But now, it's like, I can't help but think about its story. And it is kind of cool to know, you know?"

But when Monica tried to move on to the topic of landforms, the engagement seemed to fizzle. She modeled discovering the story of some mountains near her childhood home in Idaho and then had the class work together on discovering the story of the dramatic rock formations of Yosemite National Park, but many of the students were only marginally engaged. So, once again, Monica found herself conversing with Chuck.

"Alright Chuck, any theories as to why my students aren't getting into telling the story of landforms?" Monica had explained the problem to Chuck the day before. He said he needed time to think on it.

"Yep. A theory and a plan for us to try."

"Us?"

“Yeah. I’m getting into this too. Anyway, here’s the theory. Your students got into telling rock stories because rocks are part of their experience. They’re something students can easily relate to. But these landforms aren’t. You described the story of some mountains in Idaho and the rock formations in Yosemite, but what do these kids care about Idaho or Yosemite?”

“Idaho I could understand, but how could they not care about Yosemite?” protested Monica.

“They don’t have enough context to realize how unique it is. Think about it. When you were a kid and your parents dragged you around to these great nature sites, I bet you were like, ‘Great, it’s another mountain. Can we go now?’”

Monica smiled, “Good point. But even as a kid, I really did love the mountains behind my home.”

“Exactly!” exclaimed Chuck. “Because those mountains were a part of your experience. And that is the plan. We need to get the kids involved in discovering the stories of the places *they* care about. Here’s my proposal: First, we need to model the excitement we had uncovering the story of our favorite places. Then we have all the kids choose some place that has meaning to them. Maybe it’s the mountains around grandma’s cabin, a ski resort, or a favorite vacation spot. Then we have them discover the story of *that* place. We’ll need to help by coaching them along and providing resources. We can also help their engagement by pointing out what is unique and cool about the places they have chosen. And maybe we can also have them do presentations where they share their interesting discoveries and compare and contrast the chosen landforms.”

“So instead of doing assignments from the textbook, they work on using the content to understanding some part of their experience?” Monica shrugged, “I’m game. Let’s give it a try.”

The Motivational Zone of Proximal Development (ZPD)

The third step in Brophy’s model is to scaffold appreciation. In prior work, Brophy (1999, 2008a) extended Vygotsky’s (1978) concept of the Zone of Proximal Development (ZPD) to

the topic of motivation. He proposed that, for any particular student, there is some content the student already appreciates (below the motivational ZPD), some the student could potentially appreciate with proper scaffolding (within the motivational ZPD), and other content the student could not presently appreciate even with support (above the motivational ZPD). Brophy urged teachers to target content in the motivational ZPD. When possible, he recommended that teachers adapt the curriculum to local contexts to shorten the distance between the content and students’ lives (Brophy & Alleman, 2009). Further, Brophy encouraged teachers to provide the scaffolding (i.e., support, structure) needed for students to appreciate the content in their motivational ZPD and then gradually remove this support as students gain the capacity for appreciation.

In the case study, we observe that telling rock stories was within the motivational ZPD of most students, but telling stories of unfamiliar landforms was not. The solution proposed by Chuck was to have the students tell stories of landforms with personal significance, thus shortening the distance between the content and students’ lives. This general strategy of using student experience as a basis for curricular materials has proven effective at developing content appreciation and is a central component of instructional models such as culturally relevant pedagogy (Ladson-Billings, 1995) and experientially anchored instruction (Pugh, Schmidt, Russell, & Heddy, 2010).

Even with appropriate content, student engagement needs to be scaffolded in ways that help them notice the value such content possesses for enriching and expanding experience. For example, the students of Monica and Chuck might not automatically recognize the value of rereading their chosen place through the lens of geology content. Thus, the teachers will need to support students’ interest in uncovering the story and adjust to their current levels of prior knowledge and motivation. They could do this by making statements that highlight the value of particular discoveries and encouraging the development of competence in the area. For example, after a student discovers that cliffs near her home are

composed of sandstone, Monica could prompt, “So do you have beachfront property? You know, do you think the cliffs were once a beach? If so, what in the world is it doing here? How could we find out? This is exciting!” Or the teachers could scaffold appreciation by forging collaborations. For instance, Chuck might say, “Xavier, come over here. Marcos chose a place like yours. It’s another super narrow canyon with vertical walls. There has to be a similar story to uncover. I think you guys are onto something exciting. You should work together.”

Reaping the Rewards

“So Acadia, tell me what you think of the geology unit.” Monica just finished recording scores for the unit test and the students had done surprisingly well.¹ But, of equal importance, Monica sensed that the students got something out of this unit that was different from the past. So she was anxious to hear Acadia’s response.

“I thought it was cool. I liked it.”

“Do you or did you ever, you know, think about any of the ideas we studied? Like when you were outside of class?” Monica asked this question apprehensively. She desperately wanted Acadia to say “yes” and acknowledge that the ideas made some difference in her life. But she knew how rare this outcome was and didn’t want to be disappointed.

“Actually, I did,” replied Acadia. “When we went up to my uncle’s house—he lives more in the mountains and this was the place I chose for my project. Anyway, I was thinking about the geology because of my project and I started to notice a lot of things I hadn’t before. And it was really cool, because I could, like, see what was going on with the rocks and everything. I mean I could explain it, you know? And so I told my uncle about it and it turns out he took some geology classes in college, so he explained even more.” As Acadia continued to describe with excitement how she and her uncle sought to explain the geology of various peaks, canyons, and rock outcrops in the area, Monica felt a deep sense of satisfaction. She knew Acadia was different from most students, who would not describe a

similar experience. But she also knew that she had made a difference for at least one student. Monica felt energized and was eager to find out if any of her other students had transformative experiences with the content as well.

Conclusion

Educational researchers and policy makers have overlooked the value of developing content appreciation, but we suspect most teachers are not so blind. Many teachers have seen students like Acadia deeply engaged with content inside and outside the classroom. They know the value of such experience, but the difficulty comes in nurturing them. Brophy’s model provides a guideline for fostering such experience. To summarize, the model consists of three steps:

- Step one: Teach content worth teaching by (a) selectively choosing content that affords everyday applications and (b) rediscovering the everyday affordances of core content. That is, teach content that is uniquely applicable in students’ everyday lives and seek out the everyday applications of the big ideas.
- Step two: Frame lessons in terms of the everyday affordances by emphasizing the value of the content in students’ everyday experience.
- Step three: Scaffold appreciation by (a) selecting content that lies within students’ motivational ZPD (i.e., content students can come to appreciate with help) and (b) providing the necessary support in terms of such things as activity structuring and appreciation confirming statements.

The model of content appreciation can be used with all subject matter to help students foster a sense that the learning process is a worthwhile endeavor.

Notes

Jere Brophy was a friend and mentor. His work on content appreciation was an inspiration for our own

research programs. Jere's breadth of knowledge, knack for getting to the core of an issue, and personal attentiveness will be sorely missed.

1. Research has shown that when students are more interested in the content and have more transformative learning experiences, they often display deeper and more enduring learning (Ainley, Hidi, & Berndorff, 2002; Pugh, 2011).

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