Children’s Way of Knowing: A Teacher’s Reflection

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Introduction

I recently participated as a judge for a group of ninth-graders from the Synergy program at Montwood High School (MHS) in El Paso, Texas. As I arrived, student teams anxiously stood next to their projects, which collectively made an interesting chorus as ingenious contraptions hummed, bubbled, lit up, flowed, blew, smelled, turned, whistled and sputtered. Working together in small problem-solving teams, approximately 130 imaginative students impressed me with their thoughtful and surprisingly clever approaches to issues related to the environment and environmental sustainability. Judges, teachers, and visitors alike enjoyed themselves as they lingered over projects and talked to students about their presentations. It was obvious to me that scores of research, ample calculations, trial and error, and language skills were put to the test as I observed students’ fascinating devices—like an apparatus that sequesters carbon dioxide from the atmosphere, unique energy sources powered by harnessed rainwater, a clever invention of high-energy building bricks from recycled newspaper, and a smartly designed solar powered flashlight.

As the science teacher in the Synergy program from 1995-May 2006, I understood, more than most visitors, the kind of curricular, pedagogical and philosophical framework necessary to support this kind of teaching and learning experience.

Historical Perspective

I was the science teacher in Synergy when it began in 1995 and I taught with a team of four core teachers until May 2006. Synergy was developed as an effort to alleviate the stresses and failures commonly associated with large high schools like MHS, a comprehensive, urban campus of about 2,800 students located on the far East Side of El Paso, Texas. Its demographic status has remained relatively constant since it opened in 1990 with 87.7% Hispanic, 9.2% White, 2.4% African American, 6.7 % LEP, 53.1% Economically Disadvantaged, 47.4% At-Risk and a 17.0% mobility rate (TEA, 2006). Synergy was designed to be a small learning community with four core teachers sharing the same group of approximately 130 heterogeneous students for all four years of high school. The philosophy and structure of the program allowed for complex learning to take place, supporting meaningful ways for teachers and students to spend their time together. Three key elements provide the foundation for the Synergy program:

1. the development of a distinct, autonomous, cohesive and highly personalized learning community;
2. flexible scheduling, which involves looping with students;
3. challenging curriculum that is inquiry-based, designed with an integrated approach, teaching concepts in depth with connection and application to the real world, and with relevance to students’ lives.

As newly assigned Synergy teachers we set out to recruit freshmen to become members of the first Synergy cohort in 1994, by going to math classrooms and informing students that we would be “connecting the disciplines in ways that made sense,” we would be taking “lots of field trips” and they would “work together in groups and be engaged in lots of projects.” It wasn’t much of a sales pitch come to think of it, but fortunately exactly 125 students were interested enough to
give it a go. As the program took shape the following year, a distinct oppressive attitude emerged as other teachers would offer deficit-laced remarks like, “You sure do have your hands full,” or “I don’t know how you all do it,” and even “It looks like you’ve got a bunch of criminals in there.” It wasn’t until later we realized that certain teachers had encouraged several students to join Synergy in an effort to alleviate their own classroom struggles with those whom they found hard to teach. In fact, Synergy began to be identified as the program for students who were “at-risk,” and it was not fully recognized as a college-bound program by campus counselors and some faculty members.

Despite this, the first cohort of remarkable students who chose to spend their high school years with us blossomed. Through integrated projects that were collaborative, messy, challenging, relevant, contextualized and intensely personal, we observed students develop into increasingly sophisticated and empowered thinkers. As Synergy nurtured meaningful relationships with each other and the content areas, students became well-known personally and academically. Instead of seeing snapshots of student performance, we were allowed to participate in the feature-length film of the students’ lives as learners. A four-year window of time was used to build special relationships with students and to watch them grow through the weedy years of adolescence into confident young men and women. Teachers discovered student learning styles, strengths and needs; and students were able to turn to us for remediation, for enrichment, for support, for guidance.

To a passerby, the four Synergy classrooms, clustered together in the same hallway, resembled a neighborhood cul-de-sac of sorts. Students and teachers built strong relationships in an open corridor—where a lively exchange of values, ideas and philosophies took place. This shared space offered a place for relationships to be built and nurtured. These affinities included not only the obvious human relationships but also those formed with authors of books, with ideas and with real-world issues. Although the lives of all Synergy members purposefully intersected and connected throughout each class day, all core subjects were not integrated all of the time. Throughout the year one might find students working constructively on math, science, history or language arts topics. This time was needed to lay important conceptual groundwork for further study as well as address specific standards, concepts and mechanics related to specific subject areas. However, when students were cast into the arena of an integrated project (which lasted anywhere from two to six weeks) the classrooms were transformed. The learning space took on a palpable excitement that lay somewhere between “We’re going to do what?” and “I can’t wait!”

Students were expected and encouraged to talk about their thinking. They wrote about it, read about what others thought and participated in dialogue about their thinking. This did not happen automatically. It often takes a long period of time to build a trusting, safe and comfortable place where students will reveal themselves, take risks and participate in learning fully. For these students, there was a synergistic effect on learning—what Vygotsky (1978) describes as the “zone of proximal development.” This curricular and pedagogical space—filled with a meta-cognitive ambiance—allowed students’ lives to intersect with each other, with the teacher as guide, resulting in a greater degree of pleasure, knowing, understanding, sharing, participating and remembering.

To everyone’s surprise, all Synergy students passed the state mandated high-stakes test required for graduation. Unfortunately, this news was met with accusations of student cheating from a few campus members, perpetuating the notion that “those” students could not have done so well on their own. As a result all future tests would be proctored by two teachers per classroom rather than the required one. To date, Synergy students, three cohorts later, still consistently out-perform their peers at MHS on state-mandated standardized tests.
Fast Forward: What it Means to be Known

In May 2006, several Synergy students and their teachers met for an impromptu dinner at a local restaurant following high school graduation. After dinner, about a dozen or so Synergy students stood up, one by one, and spoke about how much they had been cared for by their Synergy teachers. “It’s true,” said the guest of another student; a young lady who was not in Synergy. “You guys are so lucky to have had these teachers care about you. Believe me; it wasn’t like that for me.” Following their remarks, I told them how impressed I was about what they actually knew—not necessarily the kind of knowing that comes from lectures, labs, projects and such; their academic scorecard had certainly documented that—but rather the kind of knowing that exists in their sense of valued self—the kind that of knowing that empowers.

Themes related to care were always front and center whenever students were asked to tell others about Synergy. The program often had interested visitors from around the country as well as local teachers casually popping in to examine the program model. As part of our practice, visitors were always invited to talk to our students, ask them questions and get their perspectives about Synergy. Invariably, a visitor would ask, “What can you tell me about Synergy?” or “How is Synergy different from your regular classes?” Consistently, and without hesitation, students would usually remark about the “sense of family” they enjoyed first, rather than something related to curriculum, instruction or academic success. They would speak of their ability to form close and personal relationships with one another and with their teachers. Students clearly articulated how much their Synergy teachers cared about them, always taking the time to listen to their problems, saying things like, “It’s not like this in our other classes” and “These teachers really get to know you and won’t let you fail.”

What Students Are Learning

It took me 11 years of hearing those kinds of first responses to teachers, administrators, parents and other visitors before I actually heard what my students were saying. In fact, I can remember being at the point of irritation when they would launch into another verse of how wonderful it was to be well-known. I wanted them to talk about the wildly intense and engaging integrated projects that had captivated them. I wanted visitors to hear in students’ own words how powerful it was for them to see how ideas and concepts between disciplines become clearer and ultimately more meaningful when they are woven together in a relevant context. I wanted them to show off their work or talk at length about how they viewed the world and their place in it. I even wanted them to say, “I would’ve never done so well on the TAKS test if I hadn’t been in this program.” Surely, I thought, that was the information these visitors needed to hear to really understand the work and dynamics of the Synergy program.

However, a new awareness emerged for me about what children learn in school. I realized the immediate compulsion students had to share that they were well-known and cared for was because they had a new way of knowing—a new awareness about who they were—of their own sense of worth. For me, this kind of knowing—that is, knowing you have been loved and authentically cared for and you have personal and cultural value is as deeply and profoundly important as knowing how to read, write and calculate.

If You Want Something to Happen, Create a Space for It

Schooling has always been intent on making sure that students know certain things, and national and state standards go to great lengths, sparing no expense to measure student knowledge
in the areas of mathematics, science, history and language arts. Likewise, colleges and universities readily admit students who appear to master mainstream forms of academic knowledge. Teacher preparation programs work diligently to prepare teachers to successfully use instructional and pedagogical practices that promote this academic knowledge. In short, when it comes to certain kinds of knowledge, these ways of knowing are taken quite seriously.

Less attention is given to other ways of knowing and this is particularly true with knowledge related to caring and being cared for. Literature strongly suggests that caring should be a staple ingredient in classrooms—students require it as a precondition to learning (Noddings, 1984; Valenzuela, 1999). Furthermore, Noddings (1984) stresses that caring is not just something you do, it must be known. Indeed, students who feel disconnected from teachers—who have not established meaningful relationships with them—show a propensity for early departure from school (Fine, 1991).

Additive Schooling Theory

I believe that the constructs of the Synergy program offer some interesting insights about the additive quality of schooling.

When students are rooted and nurtured in a place that “feels like home” it is not surprising that they blossom there. Schooling can be additive if the right ingredients are in place and there is a synergistic or additive effect for students participating in a student-centered, relationship-rich, learning environment. The combination of cultural and familial support, caring teachers, supportive classmates, intellectually stimulating curriculum and a safe, nurturing learning space helps students succeed. In analogous terms, an additive effect of schooling is similar to making a delicious caldillo, where a variety of special ingredients are used to infuse an ambrosia of flavors. One expects to find the required staple ingredients of meat and vegetables; however, it is only when a special assortment of essential spices are added—ones which create a distinctive palatable essence—can you tell you’re enjoying caldillo and not just simply eating soup.

The current cadre of Synergy teachers shares Noddings’ belief that “the student is infinitely more important than the subject matter” (1984, p.176) and there was an additive quality to the student presentations I observed. It was apparent to me (maybe more so now that I have been away for a year) that the students reveled in their projects and were excited to discuss their challenges, successes and failures; relating to the entire process much like real scientists do when they are in the throes of discovery. The ability to learn without ridicule, embrace science inquiry and take intellectual risks is revealed in many student post-project written reflections.

“It was hard because every day something would go wrong with our project and we [would] have to start all over again.”

“The first idea we had [about] passive cooling [didn’t] pan out the way it was supposed to. So we changed it up by watching the movie “The Mummy” [and the part] when they used mirrors to reflect sunlight and light up the whole temple [inspired us].”

“I think that when we had to redo things over and over again, it only benefited our group. When we got the chance to redo and fix our errors, it only made everything better. [We] got to see our mistakes and fix them and make them better every time, and by the end they were only perfect. This only made us look better when we presented to our judges.”
“When we finished redoing everything, and it was ready to be presented, it made everything look like we worked to get it just right. A few of the judges even made comments about it.”

“I had no idea what we were doing for a while. I could picture what we were doing but I had no clue how we were going to accomplish this.”

“We wanted something unique, something that was ours, something that no one had ever thought up.”

Student reflections also disclose the marginalized spaces many youth find themselves situated in as they consider their place in society.

“A person my age can’t really make a difference in this world. One reason is that we teenagers are looked down [upon] as the ‘bad kids of the future.’”

“I am 14 going on 15, and right now nobody will listen to me. Why would they?”

The truth is, students welcome the opportunity to share their understandings about the world with interested adults as many essays reveal students’ own insights and the power of their ideas.

“Many children are taken for granted because ‘they are not old or mature enough to make good decisions, but we, as students and offspring indeed can do many things to make a difference. There is no specific age to change the world.”

“All of us think that adults don’t listen to us, but we can change that if we want to.”

“As a 14-year old, I learned that even people my age can make a difference by doing little things.”

Peeking in on this fourth Synergy cohort and observing the additive qualities of schooling I am hopeful for high schools that provide more than meat and potatoes and continue to provide additive spaces that nurture, support, care for and empower students.
References

(Footnotes)
1 A more detail account of additive schooling theory and the Synergy program can be found in “Female achievement as a function of social capital” (Wallace, 2004).
2 The term additive is not the same as Angela Valenzuela’s use of the word in the epilogue of her work in *Subtractive Schooling: U.S. Mexican Youth and The Politics of Caring*, where she describes additive schooling as a way of “equalizing opportunity and assimilating Mexicans into the larger society, albeit through a bicultural process” (1999, p. 269).
3 Teachers in the Synergy program allowed me to read and use student responses from reflection essays following the project.