

Implementing Contextual Teaching and
Learning:
Report on the Community of Practitioners

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Abstract

When like-minded individuals come together to pursue a common enterprise, a “community of practice” is created. During the contextual teaching and learning (CTL) project, participants were members of two such communities: The first, a CTL community of their peers and professors, the second, the school-based community of fellow teachers, administrators, and students. Given the school community will likely be a stronger influence than the CTL community; support elements were implemented to maintain the CTL connection. A total of four seminars were held throughout the CTL project. Much of the support was done via the Internet. The novice teachers had access to a CTL website (including activities, resources, and news related to CTL), an electronic bulletin board, which was eventually replaced by a listserv. The final element of support was site visits by the CTL facilitator, designed to reinforce the connection to the CTL community and to provide opportunities for discussion. Participants were strongly committed to implementing CTL in their classrooms. However, the pressures of “learning the ropes” combined, in some cases, with unsupportive administrators and colleagues, made fulfilling this commitment difficult. This difficulty demonstrates the importance of maintaining a strong connection to the CTL community.

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A Community of Practice

A community of practice is defined in the professional literature as a group of like-minded individuals pursuing a common enterprise (Wenger, 1998). Jean Lave and Etienne Wenger have written about learning from an ethnographic point of view, employing sociological principles while emphasizing the importance of context and participation in communities as elements of learning. They ask the question: How do individuals become members of a specific community? In the case of the UGA CTL project the question would be: How does a novice teacher become a community member at a specific school?

In reporting their research in 1991, Lave and Wenger used the term “legitimate peripheral participation” to describe how individuals gain opportunities and use learning as members of a community. In this community role, individuals must make a legitimate contribution to a situation that they value and consider “authentic.” These contributions initially are likely to be at the “periphery” of the community. As new members progressively demonstrate competence, other members of the community gradually allow novices to engage in more complex activity. In this way, learners are eventually affirmed as full-fledged members. Through participation, learners also construct their identity relative to the community. Wenger has extended this work in situated cognition into a

more formalized construct that he now calls Communities of Practice (1998).

Westheimer and Kahne (1993) view communities as they apply to schools as a process marked by interaction and deliberation among individuals who share interests and commitment to common goals. Community consists of the social networks that define an enterprise as worth pursuing and recognize the work of an individual as competent.

This is an appropriate definition of the community that was formed by the UGA project for eight novice teachers to assist in their transition from “UGA student” to “practicing teacher.” The UGA community was only one of the communities that had impact on this transition. Each individual participated in other communities that were also influential. An important community was the one that the novice teachers were joining at the local school districts. Many times this community was supportive of contextual teaching and learning. However, there were other times when the school community required conformity to local customs and practices that excluded CTL practices. Because these local school communities were formal and presented the beginning teacher the opportunity to be a successful teacher, they often provided a stronger influence than the CTL community. The clash of communities for some new teachers presented a constant source of dissonance.

My role as facilitator of the UGA community was to establish a support structure and to be a resource to the novice teachers participating in this case study research as they evolved professionally. The UGA community structure served as a bridge where the strongest support was given early in the transition process. Over time, as the novice teachers gained expertise, confidence, and independence, the CTL support system became less important.

Support Structure

Several strategies were employed by UGA to provide support and structure for the new teachers, with some working better than others. Support structures consisted of periodic seminars, a website, electronic bulletin board, a listserv, and personal visits with the teachers at their home schools. During the project each member of the CTL novice teacher community was visited three times.

At the beginning of the case study project, the UGA CTL faculty did promise the UGA participants that their participation in the CTL project would not significantly add more tasks to their already unpredictable professional lives. This promise ultimately restricted the level of participation and commitment to the community.

Seminars

A minimum of one seminar per semester was provided. Original plans included monthly meeting; however, finding the time when all members could attend proved to be very difficult. Saturday was the most obvious “free” day of the week for teachers, so seminars were scheduled for Saturday mornings. Later in the project, seminars were designed to include spouses and significant others as a way to compensate for lost family time. For example, one seminar was a breakfast “tailgate” before a UGA football game. Scheduling conflicts prevented having all eight of the participants attend any one seminar.

The first seminar was held at River’s Crossing Building at UGA on March 13, 2002. This was a rainy Saturday morning so planned outdoors activities were modified and moved indoors. The seminar began with an orientation to the project. Dr. Nancy Knapp and I described and defined a community of practice and made explicit the

purpose of the community to the overall project. Dr. Richard Lynch, Principle Investigator for the project, joined us to review and discuss the importance and objectives of the project and to answer questions.

Participants in the project had been recruited from different components of the preservice teacher education project, thus not all participants knew all the other members of the group. Introductions and team building activities started us on the road to becoming members of the novice teacher CTL community. For some, becoming a member of the team was a process and not a single event; for others, a sense of community had been established through prior CTL activities.

I presented a brief overview of contextual teaching and learning and then engaged the community in a discussion of the meaning these principles could have in their teaching practice. This session focused on the nature of context. What does it really mean to contextualize a lesson? Information about the website and the procedures for participating on the electronic bulletin board were also presented.

As an additional team-building activity, the group made tee shirts from computer generated graphics. Together we designed a logo, found a slogan, and printed this on to an inkjet material that was then ironed on to the shirts.

One reflection topic for the first seminar was classroom management. We wanted to assist the novice teachers in thinking about strategies that would allow them to gain control of their first classroom, while still maintaining a sense of equality and democracy among their students.

A final reflection was designed to have the novice teachers state what their needs for professional support and assistance were so we could begin to understand the individual teaching situations and thereby provide more meaningful services.

Seminar #2 was held April 13, 2002 at Sandy Creek Nature, a facility of the Athens-Clarke County School District that promotes natural sciences and environmental awareness. The center features many miles of hiking trails and a large pond with an active beaver colony. Unfortunately this day was also rainy, and many of our planned outdoor activities had to be curtailed and/or modified. Five of the eight participants were able to attend.

The first agenda item for that day was a facilitated discussion between the novice teachers and experienced veteran teachers who practice contextual teaching and learning. Of the three invited teachers, only Pete Branahan, a technology education teacher in a suburban Atlanta school district could attend the seminar. As a result, Dr. Barbara Schell, an experienced teacher who uses CTL in her university teaching, was pressed into service. The session provided an opportunity for the students to ask Pete questions about life as a schoolteacher. Pete was able to communicate about public school teaching life and politics, as well as illustrating many ways to contextualize lessons. Barbara was asked about the theory of contextual teaching and learning as it applies to experiences in the field that can then be used in the classroom. This session proved lively, reinforced the importance of being accountable to curriculum standards, and challenged the novices to teach students to use knowledge in everyday and practical situations.

We also continued a discussion begun through the electronic bulletin board about barriers and enablers to use of contextual teaching and learning in public schools. Using

a flip chart, we generated lists of barriers and enablers. Selected items from the lists include:

Barriers

- Administrative resistance to time out of the classroom.
- Paper work in arranging contextual learning opportunities.
- Focus on standards-based curricula
- Too much work
- Controlling off-campus behavior
- Student resistance to new ways of learning
- Peer pressure from other teachers to conform to traditional practice

Enablers

- Some districts try to promote higher order thinking
- More interesting for teachers
- More motivating for students
- Possible transfer of knowledge
- Better behavior; higher motivation

These lists resulted in a very animated discussion of why some school districts do not support contextual teaching and learning due to many practical issues. Dr. Knapp and I were able to point out that the barriers were, for the most part, “practical” and administrative considerations, and the list of enablers was mostly “benefits to the learner.” This led to a discussion of balancing concerns about managing resistance, while promoting higher forms of learning.

A beaver pond scavenger hunt was planned to illustrate how the natural environment can be used to contextualize a lesson. Due to the rainy conditions, the scavenger hunt was modified to a brief walk to the beaver dam and a discussion of how the nature center could be utilized to contextualize lessons for all academic and vocational disciplines. The day concluded with the group reflecting on their teaching

practices—what the expectations are for being a teacher and the roles that teachers play in the lives of students.

The third and last seminar of the 2001-2002 school year was held at the Fernbank Museum of Natural History in Atlanta. The Fernbank Museum is a very rich resource where teachers can easily contextualize all types of lessons. The education department at Fernbank is a logical partner for contextualized instruction, and the education director was excited that we asked to use the facility for our seminar. The boardroom was placed at our disposal, and we were provided with many educational materials. Unfortunately, only four of the participants were able to attend this session.

The agenda for the seminar included a discussion of how a facility such as the Fernbank Museum could be used to contextualize lessons from all disciplines. We also talked about how other similar resources could be used for educational purposes. Each UGA CTL participant was asked to bring to the session a lesson that they were currently preparing so that the team could critique it and offer suggestions. The group viewed the IMAX movie *Kilimanjaro* and had time for reflection over lunch, as rain once again dampened our outdoor plans. If they did not learn anything else, these young teachers learned how to be flexible and change their instructional plans at the last minute.

As an introduction to the lesson critiques, I briefly presented some attributes of contextual teaching and learning as compared to traditional teaching. These elements were taken from the UGA theoretical framework. Example attributes that were shared included:

More CTL Focused

- Students are actively engaged

More Traditionally Focused

- Students are passive recipients

- Students view learning as relevant
- Students learn from one another through cooperation, discourse, teamwork, and self-reflection
- Learning is related to "real world" and/or simulated issues and meaningful problems
- Students are encouraged to take responsibility for the monitoring and development of their own learning
- Students regard content as having no relevant application
- Students work in isolation; peer review and/or discussion is absent
- Learning is abstract & theoretical
- Teacher is arbiter of student learning

With the attributes of CTL as a framework, we reviewed and critiqued the participants' lessons. As part of the analysis, we assessed how each of the attributes of CTL might be infused into the lesson. One participant brought a lesson on epidemiology, which she was working on as a part of her internship at the Centers for Disease Control and Prevention (CDC). The lessons prepared at the CDC will eventually be published nationally on the CDC Project Excite Website. Another participant was working on a meal planning lesson for institutions such as schools or hospitals. The lesson included budget planning and resource allocation. Another teacher shared an applied math lesson on "best buy" using serving size and price per ounce comparisons. We compared the lessons to the list of contextual teaching and learning attributes and then discussed the best way to incorporate contextualized instruction into these emerging lessons.

A 4th seminar was held during the 2002 fall semester. We struggled for several weeks after school started to find a meeting date. The major impact football weekends have on the UGA campus was a limiting factor. Finally, in desperation, I tried to make

the football schedule work for us – for once. The solution was to have a “breakfast tailgate” that would get our group together and still allow us to finish in time for them to go to their real tailgate parties and then to the game. This seminar was held at my home in Athens, which is only about seven minutes from the campus.

The purpose of this session was for the group to reconnect, after a long summer of activities and internships, and to discuss plans for the 2002-2003 school year. Many of the CTL participants were away for extended periods of time over the summer for travel and internships. Examples of summer experiences included one team member interning for the Ocean Alliance in Lincoln, Massachusetts; another was an intern at Southern Living Magazine; one participant built a house with her husband; and another member taught summer enrichment classes for promising students with economic hardships.

During the 4th meeting, the group talked and reflected on how summer travels and experiences could be used to contextualize lessons. Once again, the group participated in a lively sharing of how our experiences engage our imaginations and make us more creative teachers.

By this point in the CTL continuation contract, most of these novices were well on their way to becoming reasonably confident teachers. For some, the journey was more challenging than for others. I decided that the best way to help them at this point in their development was to concentrate on visiting them in their classrooms and finding ways to support them on a more individual basis.

Personal visits to schools

During fall semester, 2003, I visited each participant twice. The visits were not a time to observe them teach, but a time to talk, to answer questions, and to make

suggestions when I was asked. Often these visits turned into long conversations that lasted well past the end of the school day. We often discussed future plans, impending marriages, breakups with boyfriends, graduate school, and of course, daily contextual teaching strategies. Two of these young teachers were really struggling in their first year of teaching.

One young math teacher was completely frustrated with kids that “*do not want to be here and definitely do not want to learn.*” I was able to calm her by listening to her concerns and frustrations, and referred her to a colleague and some other helpful resources. I encouraged her and reminded her that these are the children who need us the most. Eventually she found her voice with these youth. A recent e-mail from her said that the applied math classes were now her favorite because she never knows what is going to happen next.

Website

The website has been utilized fairly often. The site was developed to keep the CTL novice teachers up-to-date on activities, resources, and news about the project. The site also includes a detailed biographical sketch of each participant. Specifically, the site includes:

- information about the project
- calendar of CTL events
- related sites
- biographical sketches
- communication linkages
- news about upcoming CTL seminars and activities
- links to other CTL websites

The purpose of the site was to promote a sense of being a part of a learning community and to inform the public of their progress in becoming professional teachers.

Electronic Bulletin Board

To enhance communications, an electronic bulletin board was developed. This allowed all of us to post questions and comments between the times we were meeting in person. Following is a sample of communications (unedited) on the bulletin board of a variety of teaching and learning issues.

I love CTL and teaching because of the opportunities to make last[ing] impressions of mathematics on students. The idea that a student of mine may say "Ms. P. was the best Math teacher. She made it so much fun! I remember when..." 10 years later. I also have such a passion for learning math, teaching it, and working with people. The avenues are endless for the applications to math in the real world. Mostly, I really love helping students believe in their own capabilities in and out of the classroom. I love using Mathematics and CTL as a weapon for learning and building confidence.

Road Blocks with CTL - Money, Planning Time, Resources. Some of my best CTL idea hit me at 2 am before the class day I needed to use it. Also, buying the cool materials for 90 students can be EXPENSIVE...I need more ideas on how to build a CTL classroom from a calc class, alg 3 overloaded class, or a alg 2 class where the students want to be spoon-fed information! I think my most powerful tool for preparation would be to come up with a method of creating a problem solving environment. I think that takes practice, and I am learning to be patient.

What I love about teaching (student teaching): *I loved actually getting to be in the classroom for the first time. I had so many ideas of what I wanted to do and I was finally given the chance to actually put those ideas into action. I really love math and want everyone to love math and see what I see in it. Teaching mathematics allows me to show students that math can be fun,*

exciting, and meaningful in their lives. I feel that most students hate math and I can give them a new window to look through. I felt like my students actually started to see math as fun and interesting! I love just having the opportunity to work with students. I love knowing that I am helping someone grow mentally.

What I find difficult right now is TIME. I have so many ideas to put into action but I need more time to do them. The curriculum says you must get through so much in such a time and that leaves very little time for exploration and activities. I feel like sometimes I need the students for more than one hour! I am also finding it difficult to judge how much time something will take for my students or me to teach or learn. Sometimes I come up with an activity that I think will take one hour and it ends up taking two.

Reasons I LOVE teaching: (sorry, Dr. Knapp, am going to just randomly list things) -I can be as creative as I want -Spend all day talking about stuff I love-bacteria to atoms to whales, I love it all. -Never a dull moment, while teaching my mind is constantly stimulated, not only by the academic stuff, but also in the sense that for every student, I have to try to find the key that "unlocks" his/her desire to learn. -Keep learning myself.

What's difficult: -Ditto on what R. said: Time to develop ideas fully, time in the classroom to cover everything I want.

1. I like teaching because I get to teach about subjects and topics that I enjoy and that I am interested in. My interest and enjoyment is therefore passed along to my students. I have a lot of freedom to be creative with my lessons and units. I can develop projects that will really interest the students. I really like seeing them get involved and get excited about what we are doing. In teaching, there is always an easy way out, and there is always a way to go the extra mile. I can always see a difference in the students' learning when I take that extra mile

for them. It makes me feel good when I know that it was worth the effort.

2. What I find very frustrating right now is the lack of motivation from administrators. We have eight weeks left of school and I am slowly losing my motivation. When you are rarely ever praised, congratulated, thanked, or appreciate by the administration in the school, it makes it very difficult to keep wanting to go that extra mile for the students. I have been observed once this year and the principal has never stepped foot into my classroom. No one has any idea what I have done with my students this year and no one (administrators) ever asks. I feel that teachers and especially new teacher, need FEEDBACK...positive and negative...from people above them to give them the motivation to keep going.

Listserv

As time passed, participants communicated less frequently through the electronic bulletin board. When questioned why this was occurring, participants responded that they were too busy to access the board on a regular basis. At the suggestion of Dr. Knapp, we set up a listserv as a way to continue to encourage communications, but in a way that would require less participant time. With the listerv one email can be sent to all participants, and each response likewise goes to everyone on the listserv. This format worked for a while to stimulate communications; but as time passed, the listserv was used less regularly.

At this point the community of eight novice teachers has just about run its course. The communications I receive from the participants are more likely to be individual e-mails or telephone calls. Most of the conversations now concern graduate programs, better teaching positions, and writing recommendations. As the project winds down, this is as it should be.

Findings and Implications for CTL in Schools

All of the CTL novice teachers expressed a strong desire for and appreciation of field-based learning opportunities. As these individuals moved into their own classrooms as teachers, the difficult realities of teaching using real world contexts began to set in. Some CTL novice teachers experienced a tension when teaching in public schools where the expectation is often placed on accountability and performance on standardized tests. It is a difficult task for novice teachers to insist on using student centered activities, when the culture of the public school can run counter to this approach. However, they do overwhelmingly believe that learning in the real world is more impactful for the learner.

Teaching within the context of a community of practice is quite different from the traditional teacher who is imparting knowledge to students. Using community of learners as a foundation for teaching means the use of “learner centered” approaches. It also seems to be more effective when students themselves are embedded in authentic contexts and learning situations outside of the school classroom. It is clear that the participants of this CTL project strongly recognize the differentiated roles of a teacher concerned with contextual teaching and learning in contrast with a teacher who embraces more teacher-centered instructional strategies.

Another expectation of contextual teaching is that students remain actively engaged. On several of occasions, the novice teachers were faced with difficulty in achieving student engagement and dealing with students who seemed to not want to be in school at all. In several cases, they were able to overcome these difficulties by using multiple instructional strategies, learning to draw on students’ prior knowledge, and then building new knowledge structures upon it. When student-oriented strategies are

employed, we do find evidence that the context is activated and knowledge becomes more transportable. When teachers' and students' knowledge and experiences are contextualized, they are both more likely to see the connections between school content and the skills required in living a full life.

An important lesson that can be drawn from our CTL project is that experience alone is not sufficient to make knowledge active. It is what the teacher and the students do with their experiences that makes knowledge more flexible. An important way of “processing” learning experiences is to require students to articulate their thinking about their own thinking (metacognition), and then reflect on the meaning of that information for their own lives. I have come to believe that the novice teachers in this project are going to become much better teachers because they have learned to reflect on their own practice.

All of these young teachers are finding their own way professionally as the project draws to a close. All except one have moved into teaching or careers in education. They have drawn strength from each other as they participated, collaborated, planned, schemed, and worked together. The purpose of the UGA CTL project has always been to create an educational approach that requires learners to think and to use their minds in creative and innovative ways to solve problems as they encounter them in realistic environments. I believe that the expert use of contextual teaching can push students to a much higher level of cognition, giving education meaning while shaping self-identity. The experience of creating a community of practice to support novice teachers as they attempted to apply contextual teaching and learning in their schools has

deepened our understanding of CTL and supported our belief in the effectiveness of this approach to learning in today's diverse schools.

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