

## Pedagogy, Self-Assessment, and Online Discussion Groups

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### ABSTRACT

One Master's Program, Initiatives in Educational Transformation, has integrated a computer management system (WebCT) into a learner-centered (Weimer, 2002) community of K-12 practicing teachers. Online discussions were an extension of instructional practices that supported dialogue, reflection, and self-assessment for the purpose of continuous professional improvement and facilitating independent learners. The research question that guided this study was, how can we develop self-monitoring and acceptance of online discussions so that students become independent learners? Online discussion postings and student self-assessment served as data sources. Three dominant themes emerged from the data. The first theme, Community of Practice: Dialogue Supports Independent Learning, captures the components of Wenger's (2005) community of practice that enhance students' personal and professional experiences in shaping online discussions. The second theme, Independent Learners: Making Sense of Theory, addresses how educational theory, classroom pedagogical practices, dialogue, and lived experiences support the transformation of practice. A third theme, Self-Assessment Informs Understanding of Self and Discussion-Group Dynamics, conveys the ways in which self-assessment informs students of their strengths, and student-identified areas of improvement support independent learners as well as foster deepened understanding of participation within online discussion groups. Online Communities of Practice (CoP) support students' professional sharing and the development of independent learners. Faculty played an important role in structuring student reflection and self-assessment opportunities to enhance the learning experiences for students.

### Keywords

Online discussion groups, Communities of practice, Learner-centered theory, Self-assessment, Social construction of knowledge

### Introduction

In a master's program for practicing K-12 teachers (whom we refer to as students) we have combined learner-centered principles (Weimer, 2002) with a commitment to developing independent learners and students' capacity for transformative dialogue. We were anxious to create an effective, supportive learning community among program participants. Commitment to the learner-centered principles led us to involve students in the assessment of the pedagogy. In this paper, we report on the first round of assessment in our efforts to facilitate independent learning within a community of practice (CoP).

We began this project with the belief that we would foster students becoming independent learners if we created among them discussions that focused on expertise gained through classroom practice. The behaviors we were looking for in students were: setting a professional agenda in their discussions, making connections between their classroom practice and readings in the program, and giving and receiving critical feedback in ways that improved classroom practice. In part, these beliefs derive from Dewey's (1916) notion of knowledge construction as a social process. In the context of our program, in which we have intermittent in-person class meetings, we wanted the discussions to be online. Dabbagh and Bannan-Ritland (2005) suggest "online learning is an open- and distributed-learning environment that uses pedagogical tools enabled by Internet and Web-based technologies to facilitate learning and knowledge-building through meaningful action and interaction" (p. 15).

We were highly conscious of the process of creating an effective, supportive learning community around our online discussions. Odin (2002) states, "in an effective learning community, the instructional tasks are contextualized in authentic situations, and students are given opportunities to construct knowledge as they test their ideas on others and evaluate other perspectives" (p. 2). For the purpose of this study, "communities of practice (CoP) is defined as a group of people bound together by shared expertise and passion or a joint enterprise" (Wenger & Snyder, 2000, p. 139). Communities of practice are specialized learning communities defined by the knowledge, not the task. The domain of the CoP is the shared understanding of purpose and value to members that allows members to decide what

is worth sharing, how to present their ideas, and which activities to pursue, and include complex and long-standing issues that require sustained learning (Wenger, McDermott & Snyder, 2002).

The *Work Group of the American Psychological Association's Board of Educational Affairs (BEA)* (1993) states, "learning and self-esteem are heightened when individuals are in respectful and caring relationships with others who see their potential, genuinely appreciate their unique talents, and accept them as individuals" (p. 8). Online discussion groups provided a space for purposeful dialogue, supporting the development of a dynamic learning community. Dialogue enhanced and enriched students' understandings of the content. Wink (2000) defines dialogue as a change-agent which changes us and our context. She states that dialogue creates and recreates multiple understandings (p. 47). In particular, we were committed to helping the students develop higher level thinking and processing skills so that their online postings went beyond "story telling" to comparative analysis, evaluation, and application of alternative positions and strategies.

For the purpose of this paper we will share our pedagogy and ways in which we have integrated a computer management system (WebCT) to facilitate the development of independent learners, foster dialogue, and provide a self-assessment opportunity for students through online discussion groups for the purpose of social construction of knowledge. We made the deliberate decision not to participate in these discussions and we monitored them only loosely. On the other hand, the discussions played an important role for our class and curriculum. Online discussions potentially provide the glue, along with team meetings, that hold the program together between class meetings. What we needed was for students to buy into the process and become independent learners. Our research question that guided this study was, how can we develop self-monitoring and acceptance of online discussions so that students become independent learners?

## **Context of Our Study**

The Initiatives in Educational Transformation (IET) experience is a two-year, non-traditional, school-based Master's program for practicing teachers in PK–12 positions. Interdisciplinary teaching teams (typically 3–5 members) serve as instructors who collaboratively construct and scaffold learning experiences that promote teacher engagement and professional growth. Students enrolled in IET's master's program are diverse in many ways: ethnicity, age, years of teaching experience, gender, elementary and secondary backgrounds, and their work within a variety of educational contexts. IET recognizes the value and importance of collaboration (Cole & Knowles, 2000); therefore, students enroll and participate in the program in school teams of two to six members. School teams typically consist of students who teach at the same school; however, there are multi-school teams as well. School teams meet weekly to discuss and reflect upon the readings and classroom/school issues and share expertise and personal experiences. Teaming provides the context for intellectual community, dialogue, social support, and professional growth. Students gain the perspectives of others and construct positions on crucial aspects of teaching and learning (Kayler, 2004). Collaboration combats the isolation and alienation many students face within schools.

The program supports practicing students with a unique schedule. Our students participate in two two-week intensive summer sessions and 16 eight-hour classes over a period of two years, with a final one-week intensive summer session. Because of our unique schedule of class days, the amount of time students interact face-to-face is limited to classroom meeting time. As part of our curriculum, we implemented online discussion groups using a commercial courseware (WebCT). This web-based learning community expanded teacher-interaction time and classroom pedagogy to include the times we were not meeting face-to-face. We view integrated technology as a way to support and enrich course curriculum in ways that are personally meaningful to students.

## **WebCT Overview and Implementation**

Within a learner-centered (Weimer, 2002) and critical pedagogy framework (Wink, 2000) we organized course content and instructional opportunities using a variety of pedagogical strategies to address diverse learning styles. Our students grappled with constructing meaning from course content and educational theory. We asked them to use the content and theory as they sought to make meaning of their personal and professional experiences, perceptions, and work in schools.

As with any technology-supported program, the class was composed of students with a wide range of abilities, which we challenged them to expand. We worked to scaffold and support students' online skills by providing technology assistance and training several class days. Individual members of school teams also provided technology support to one another and to other school teams. Peer collaboration assisted those with fewer technological skills, enhancing the sense of community and providing needed support.

WebCT supported students through a variety of capabilities or features. For example, all students created individual home pages so class members could learn about each other. They used the mail system within WebCT to contact each other and faculty. Course assignments were managed through the use of an electronic drop box. School teams collaboratively developed a team web page for the purpose of displaying their school and community culture and posted syntheses of teamwork projects and team norms they developed to guide the ways they would work together as a team. Students also participated in pre-configured online discussion groups.

The WebCT online discussion groups were a tool we used as an extension of our classroom to connect individuals and school teams beyond classroom experiences. We configured discussion groups of approximately 8–10 members. Discussion groups were purposely configured so that school team members were not together. School context, grade levels, years of teaching experience, and diversity guided the formation of discussion groups to provide a range of perspectives. This arrangement extended conversations across teams and schools to the broader peer group for the purpose of enhancing team discussions. Vygotsky's (1978) social development theory is based on the idea that social interaction is vital to cognitive development. A second aspect of Vygotsky's theory is the idea that the potential for cognitive development depends on the "zone of proximal development" (ZPD): a level of development attained when learners engage in social behaviors with those slightly ahead of them developmentally. The range of skill that can be developed with guidance or peer collaboration exceeds what can be attained alone.

Situated learning is a theory of knowledge acquisition. Lave and Wenger (1991) suggest that learning requires social interaction and collaboration. Learning occurs as a function of activity, context, and culture in which it occurs. Knowledge needs to be presented in authentic settings with applications that would normally require that knowledge. Learning must take place in a real setting, a setting meaningful to the learner; one that is not contrived. Social interaction is a key component of situated learning. Students posted weekly discussion entries and read the entries of others in the discussion group. Timely postings were considered to be a necessary component in building a community of practice. Each member of the discussion group served as moderator for one week during a 10-week discussion period. Online discussions, classroom experiences, and readings provided the raw materials for class exercises, teacher classroom research papers, and other course requirements. Students were encouraged to integrate these components within their postings. Discussion groups served as a forum for students to be reflective about their own and others' experiences. Students were expected to give a critical analysis of others' ideas in a constructive, professional manner.

The goal for dialogue is to refine the manner and level for which the students engage as professionals and develop as independent learners. Students were provided a space to discuss and grapple with the complexities of teaching and learning, foster alternative perspectives and apply educational theory to practice. Students engaged in dialogue around issues of culture, classroom research, and course texts and regulated their learning as a way to promote accountability to their group and to self-assess. As a faculty we chose to monitor but did not participate in these discussions to guard against our voices overpowering the voices students. Weimer (2002) suggests, "in the classrooms of critical pedagogues, teacher authority figures do not dispense knowledge" (p. 9). We viewed online discussions as a distribution of power in our classroom. Our goal was to both build community within the program and to foster discussions beyond school teams promoting the development of independent learners. Online discussion groups were an extension of the classroom, a place for students to share personal experiences and professional expertise, to make sense of curriculum and to participate in communities of practice (Wenger 2005).

## **Methodology**

### **Data Source and Analysis**

One program goal is to allow students multiple opportunities to self-assess based on authentic data. For this study we examined the use of self-assessment and accountability specifically in our online discussions. We provided time

and structured a two-step process to allow students an opportunity to reflect on their individual contributions and identify their strengths and areas for improving future discussion participation based on course objectives.

The student self-assessment form took many iterations; the final version included a scale response and asked students to substantiate their score with evidence from their discussion group postings. Students' self-assessment forms were collected, copied, and presented as a data source.

After the completion of the first 10-week discussion, students were asked to bring in a copy of all of their postings from a specific class day. The first step had a two-fold purpose: the first was to give students another opportunity to code and analyze data and identify themes that emerged from their contributions to their discussion group. The second purpose was to allow students to see how they were transferring theory into practice and the ways in which they were contributing to others' understanding.

The next step asked students to evaluate their participation using a scale of 1–5, with 1 being strongly disagree to 5 being strongly agree. Students were also asked to provide evidence of their ranking with quotes from their postings or to provide anecdotal notes. Students analyzed their online postings based on the following:

1. Postings included engaging questions which lead to continued dialogue.
2. Postings demonstrated a knowledge and understanding of assigned readings.
3. Responses were not limited to "I agree" or "great idea" but were supported with examples from personal and professional experiences.
4. Postings offered different perspectives for the group to consider and encouraged dialogue within the discussion group.
5. Participation was timely and on a weekly.
6. Postings were well-written, incorporating proper grammar, spelling, and sentence structure.
7. Other Comments

A total of 63 students, 54 females and 9 males, completed the form and coding process. Each question on the online participation form was entered into a database/chart by a doctoral graduate assistant. She coded the data at the conclusion of creating each chart. We each read and reread the data prior to coding each of the six charts and compared our patterns and themes. Afterwards, we met to compare and again refine our collective analyses. Several broad categories were identified using the constant comparison method (Bogdan and Biklen, 1992). We then used a cluster analysis to further refine the categories.

During the first coding process it was necessary to examine a secondary source of data. It became apparent that some students using the online format took agency: they felt enabled and empowered to act and solve their own problems, and thus had positive experiences. Others did not take agency but adopted a passive role and thus had negative experiences. As a research team we have collected data on each student's learning-style preferences, which upon correlation were important to analyzing specific responses.

What follows next are three dominant themes that emerged from the data. The first theme, Community of Practice: Dialogue Supports Independent Learning, captures the components of Wenger's (2005) community of practice that enhance students' personal and professional experiences in shaping online discussions. The second theme, Independent Learners: Making Sense of Theory, addresses how educational theory, classroom pedagogical practices, dialogue, and lived experiences support the transformation of practice. A third theme, Self-Assessment Informs Understanding of Self and Discussion-Group Dynamics, conveys the ways in which self-assessment informs students of their strengths, and student-identified areas of improvement support independent learners as well as foster deepened understanding of participation within online discussion groups.

## **Findings**

We imagined that as students wrote about their personal experiences, they would develop their own voices and perspectives. Further, we are aware of the power of professional dialogue among students in fostering their professional development. Because we wanted students to theorize their work as well as to share and reflect on it, we structured the online discussions explicitly to make ties among these elements of learning. Previous experience with online discussions had taught us that students are most fluent and confident when they focus on their experience. The

processes that develop trust among participants and confidence to generate dialogue are complex. Participants are at different points of professional development and bring different skills and levels of confidence to the process. These assessments add rich data to our developing understanding of the processes.

### **Community of Practice: Dialogue Supports Independent Learning**

Dialogue within communities of practice can play a critical role in the development of independent learners. Wink (2000) views dialogue as, "... profound, wise, insightful conversation. Dialogue is two-way, interactive visiting. Dialogue has periods of lots of noise as people share and lots of silence as people muse. It moves its participants along the learning curve to that uncomfortable place of relearning and unlearning. It can move people to wonderful new levels of knowledge; it can transform relations; it can change things" (p. 47–48). According to Wenger (2005), communities of practice have a commitment to transformation when individuals work towards developing their expertise of practice. Online discussions can be a vehicle for teaching and learning that may not be possible to achieve in the classroom. Placing students at the center of their learning can support their development as independent learners. Our research provides authentic ways in which students supported their own and others' professional development.

Our online discussions were rich in descriptions of the ways in which students used their personal and professional experiences to enhance and enrich online discussions while participating in a community of practice. The majority of students reported enjoying learning about members' experiences and used their own experiences to support their ideas within their postings. They could make connections between their own experiences and the experiences of other participants in order to encourage and be supportive of one another as noted in the following three examples:

- "When a group member wrote about a situation that was similar to my own, I wrote about the way I handled the situation and sometimes offered suggestions for group members to try."
- "I tried to incorporate my classroom and professional experiences as much as possible with the intent (hopefully) of helping some of my teammates know they're not alone."
- "In my postings I tried to begin with a subject that I was grappling with or interested in. I usually discussed the subject, made a connection to my own practice, and then asked questions or asked for opinions."

Students' comfort with sharing experiences enabled them to be supportive and encouraging of one another as they worked to understand and learn from one another. According to Wenger's (1998) perspective of social theory of learning, this community of practice integrated meaning, practice, community, and identity while referring to a familiar experience.

Students served as a resource when they shared their stories. Communities of practice are fostered when students discover that they face similar issues and opportunities. Participants produce a shared practice as members engaged in a collective process of learning. Students wrote:

- "Postings allowed us to seek advice from other colleagues, which is helpful. Postings also allowed us to see that many of us were grappling with the same concerns. Many postings lead to other interesting ideas on which we were able to give feedback."
- "Looking back, I find that I used personal and/or professional experiences in every posting. My fear is that I used too many personal examples and should have focused more on 'theory' input. Many times I discussed learning centers and other strategies that worked very well in my classroom or grade level. I also discussed time constraints, asking if others' experiences were similar."
- "I think my postings were engaging, and some had questions. There was a lot of dialogue on the homework issue and the inclusion discussions. But I do not see that we really got into a lot of dialogue as a group."

Professional expertise was valued as participants drew upon their experiences to help problem-solve real issues our students faced within their classrooms and school contexts. It was not uncommon for students to specifically mention the ways in which they teach particular content and shared their experiences using a variety of methods and strategies. One student reported, "I was very direct about explaining my position with evidence from my own experiences. I talked about my experiences with professional development, my math class, my struggles with SOL scores, and much more."

Some students reported on their lack of confidence in the value of their perspective to others in their discussion groups. For example, one student wrote, “I lack a bit of confidence. I am working on believing that other teachers (especially those with more experience) will value my opinion.”

These students were able to draw upon their understanding of teaching and learning, curriculum work, and experiences in working with peers, parents, and administrators, which enriched the discussion groups. Of the 63 students only two did not include personal or professional experiences in their discussion postings. Most students were able to draw upon their personal and professional experiences as a way to create a supportive CoP. Students served as resources and problem-solvers, and encouraged one another as they worked to understand the ways in which personal and professional experiences can shape their work in classrooms and schools.

Stage, Muller, Kinzie, and Simmons (1998) state, “from a constructive perspective, knowledge cannot simply be given to students; students must construct their own meanings” (p. 35). Online discussions can support cognitive learning through the integration of pedagogy, text, and experience. Students assimilated knowledge and gained deepened understandings while grappling with theory and the social construction of knowledge in the company of their peers. Affective value is found in the development of teacher confidence and contributions to the learning community. The social construction of knowledge embedded in dialogue creates new opportunities for self-reflection, growth, and intrinsic motivation for belonging to a CoP. Online discussions were a venue for students to incorporate personally meaningful goals, discover and construct meaning from information, and process goals through the learners’ own perceptions, thoughts, and feelings.

Our work supports Wenger’s (1998) belief that CoP fulfills a number of functions in the creation, accumulation, and diffusion of knowledge and the exchange of interpretation of information. A CoP has a shared practice and a common set of situations, problems, and perspectives. There is specific knowledge that the community develops, shares, and maintains (Wenger, McDermott, and Snyder, 2002). Our students worked together and independently created knowledge within an environment that fostered mutual respect and trust. Our study contributes to the knowledge base by illustrating how students work to transform their practice by participating in a community of **practice**.

### **Independent Learners: Making Sense of Theory**

The American Psychological Association (1993) states that learners “link new information with existing and future-oriented knowledge in uniquely meaningful ways.” The work of teachers, as they strive to meet the learning needs of their students, is difficult. Online discussions validate successes and provide hope and support as students seek solutions and work towards improvement. Students’ personal and professional backgrounds provide a basis for their learning and interpretations.

One quality we value is for students to theorize their classroom practices through making connections with the theories they encounter in the readings. While students had rich discussions in sharing their personal and professional experiences, many of them struggled in making connections to course readings and theory. The more experienced writers and analysts reported they were able to incorporate course readings into their discussions. For example:

- “I felt very connected to the group in this area. We discussed moral issues well and brought in ideas from the readings. I was very engaged in the Teacher Narrative reading and Action Research. We also discussed Weimer. Having common vocabulary made posting easier.”
- “My responses frequently reflected the assigned readings, as well as outside sources of information. I discovered that I used a lot of the language and quotes from the readings to support my thoughts.”

On the other hand, the majority of students struggled or didn’t refer to readings in their discussion postings. When readings were used, however, students would include a quote or two to support their posting. For example:

The only required text I discussed was the school culture book. I think the reason being is I really enjoyed it. I found myself discussing one book that wasn’t a required reading, just a book I was reading for pleasure. I think next forum I will have my journal with me because that’s where I refer to the texts.

Other students reported on how it was easier for them to respond to others' postings when they had included information from a particular reading. One student reported, "When others quote the text/readings, I easily expand and share my own thoughts, but I find it difficult to connect to the text myself."

For some students, incorporating readings into their postings was a relatively easy task, but for most students this proved challenging. Students reported on the ways in which they wrestled with integrating course readings into their discussion postings:

- "Although I understood the readings, I don't feel that a lot of the postings allowed me to demonstrate this knowledge. The only time I was able to demonstrate it was when readings were brought up in the discussions, which did not occur frequently."
- "I don't pull in enough connections to the texts we are reading. They are embedded in my thoughts but not evident in my postings."

Regardless of whether students incorporated readings into their discussions or not, they did report developing a language to talk about their experiences. For example:

- "Sometimes I used vocabulary from the readings in my postings."
- "I discovered that I used a lot of language and quotes from the readings to support my thoughts."
- "I discussed the readings and related them to my own life. However, I also asked questions about them for others to clarify things."

Students identified the ways in which they were able to integrate course readings into their postings and the ways in which they used language and quotes to support their postings. Students worked together to make sense of the readings and socially construct understandings. Dabbagh & Bannan-Ritland (2005) conveyed Barab, Thomas, and Merrill's (2001) study that this further supports the notion that the online context can support learners engaged in deep and meaningful interpersonal interaction.... The most meaningful learning for students seemed to occur when they shared personal experiences related to course content" (p. 86). Even where students were not able to use the reading, they were active participants in generating discussions and offering alternative perspectives to one another. Some students primarily identified their own individual perspective as being alternative because of their age, grade level, content area expertise, and years of experience when offering their perspective:

- "I think my postings were very different because I am a PE teacher and the others are all classroom teachers. I had many different perspectives and ways of doing things that a classroom teacher would never have."
- "My writing appeared to be more conservative than that of my fellow group members. This may be due more to my age than beliefs."

One way that students promoted alternative perspective-taking was to play the role of devil's advocate or to ask thought-provoking questions. As one student wrote, "Questions that lead to discussions are typically questions that are controversial. I based my questions on controversial class topics."

Several students reported on how they lacked confidence or felt nervous about how their postings might appear confrontational to their peers. One student wrote, "I talked about 'courage' — not in a 'confrontational mode' (like the entry about people not getting along with peers at their schools) but in beautiful examples of child/staff/parents — those who feel marginalized or challenged. My entry about Thad!"

Student perspectives and sharing enhanced their understanding by providing them opportunities to ask questions of one another, articulate their own perspectives and views, and learn about how others' perspectives can provide new insights into teaching and learning. Students were afforded opportunities to develop skills as they worked to encourage each other, explore alternative perspectives, and make sense of educational theory.

As students developed as independent learners, their capacity to create and use knowledge increased as they participated in shared endeavors with others, all playing active but often varying roles (Rogoff, 1994). For example, some students tried to generate meaningful discussion but failed to engage the discussion group. Students wrote:

- "I felt that my postings did offer different perspectives. I tried to suggest other alternatives and solutions to dilemmas."
- "There's a real contradiction here, for although I feel my postings were relevant and thought-provoking, very little response was generated from them."

- “I did not include as many questions in my postings as I could have — many times I felt there were no more important questions about the topic left to ask. I had difficulty formulating different questions about someone else’s topic. However, I did try to end my entries with room to lead to other dialogue. Plus, I feel my moderating week was filled with engaging questions.”
- “I thought my postings did, but I’m not quite sure they encouraged dialogue within the group. For example, I’d end with a question hoping to carry out or expand the discussion and this did not happen. I think some people dominated the postings.”

Two students did not offer different perspectives but responded only to discussion postings they agreed with and didn’t provide alternative perspectives within the discussion groups.

Overall, students were engaged in discussions and gained alternative perspectives through their grappling with course readings and theory. Students worked together to make sense of theory by offering interpretations and connecting theory to real-life experiences. One key element of CoP is improving one’s ability to transform based on involvement in a CoP (Wenger 2005). Clearly our students shared similar challenges, interacted regularly, and learned from each other. Their developing language enhanced their ability to articulate and address challenges as they wrestled with educational theory. Students moved to higher-order thinking, and their experiences to develop expertise of practice and ongoing transformation indicates that they are independent learners (Wink, 2000). However, not all students reached the heights of dialogue we hoped they would achieve in this context. These data have fostered our developing understanding of the complex relations between the students’ level of professional development and their capacity to converse with each other about theory within a learner-centered context.

### **Self-Assessment Informs Understandings of Self and Discussion Group Dynamics**

It is important for faculty to structure learning opportunities for students and to discuss the value of self-assessments. Weimer (2002) states, “the literature on self-directed learning also underscores the importance of assessment, only in this case it is the ability of students to self-assess accurately. Sophisticated learners know when they do or do not understand something. They can review a performance and identify what needs improvement. They know when their lack of objectivity necessitates their soliciting external feedback” (p. 17). Our formative self-assessment promoted students to be self-reflective regarding their contributions the development of the discussion community. Data from student self-assessment illustrated the ways in which student contributions positively impacted discussion groups. Students developed awareness that their individual contributions were of value to the learning community and identified ways to enhance the online discussion groups to make them more meaningful to the members. Students also identified areas for improvement. Self-reflection allowed students to evaluate their work and use their postings as evidence to identify patterns of participation which could enhance the larger learning community.

The process of self-assessment based on re-reading and coding their contributions allowed students to reflect on their level and degree of participation and on the quality of their contributions. Their online discussion entries documented the ways in which they participated in their discussion group. The self-assessment activity asked them to focus on two areas: individual contribution and group dynamics.

The self-assessments allowed students to identify strengths and areas to improve upon while fulfilling online-discussion expectations. They were able to get an overview of their contribution, highlighting what they included and what they omitted. Comparing to our criteria and reflecting on what they had actually written, they could not invent what was not there. They recognized and articulated strengths and omissions:

- “I need to reflect more on my actual instruction of the classroom. I’ve spent a lot of time focusing on school culture. I need to be more honest and reflect on myself.”
- “I did not include as many questions in my postings as I could have — many times I felt there were no more important questions about the topic left to ask. I had difficulty formulating different questions about someone else’s topic. However, I did try to end my entries with room to lead to other dialogue. Plus, I feel my moderating week was filled with engaging questions.”
- “I was surprised when reading all of my postings how much more I got out of the discussions than I ever realized. When highlighting, it was evident that I really was on the right track; I was proud of myself. I have a few areas to improve upon but overall I feel that I did a good job with the WebCT postings.”



The program seeks to help students develop skills and capacities that will enable them to engage in activities that will sustain their professional development and facilitate independent learning after the program ends. The capacity to be self-critical and to use data from one's practice to formulate ways to improve is an important element in the capacity for continuous improvement.

Interestingly, we found that while most students reported having an overall positive discussion-group experience, when we examined data pertaining to learning-style preferences, we found that writing could be a factor. When groups included individuals who enjoyed the written-reflection aspect of online discussions, these students were at times frustrated with the lack of participation and depth given by others. We also found that those who enjoyed writing were more willing to problem-solve and self-evaluate their contributions.

Typical areas of difficulty mentioned by the students were related to finding time to post regularly to simulate an ongoing discussion and the lack of connection between personal/professional experiences and issues in the readings. The data revealed that students in functional discussion groups were able to determine and connect the positive interactions and needs for improvement from a personal perspective:

- "I enjoyed talking with my discussion group. It was hard to find time each week to write, but when I did the ideas just flowed."
- "I liked posting my ideas on WebCT but I wish the caliber of writing was stronger and that the discussions were a bit more lively, intellectually-based. I feel that much of it was warm-fuzzy, "you go girl" type of writing."

Another group of students called for changes in membership in their discussion group. Interestingly, this group of students identified similar issues of participation and quality as areas of frustration:

- "I hope we fix our group. There was lack of participation and organization in my group. Need to discuss a format."
- "I would like to see the groups changed. I didn't like our group. Very negative and few postings! I checked almost nightly and rarely had something to respond to. The same few were always posting, while others rarely did."

In examining these students' learning-style-preference data, it was evident that they were less inclined towards written reflection as an engaging learning tool. It is likely that these two students would have positively engaged in face-to-face oral discussions as a preferred learning style. These students were unable to look inward to their own role in shaping the learning community but rather focused outwardly to the participation of others as inadequate. In comparison to the earlier group, these students viewed their negative experiences as the fault of others in the group and failed to identify their role in the dysfunction of the group.

Based on student self-assessment data we made some changes in group configurations and redesigned the second self-assessment form to include group accountability. Students were given the choice of maintaining or modifying their current discussion groups or creating new discussion groups. In the second self-assessment survey, we framed our questions to elicit data in three areas: students' use of critical pedagogy; what they valued most about online discussion; and accountability. Students individually self-assessed their contributions, and then met with their discussion group to discuss evidence that members were engaged in dialogue and to identify areas of improvement. This enabled us to increase inter-accountability among group members while allowing face-to-face conversations to meet the needs of diverse learners.

Overall, students who had either positive or negative experiences with their discussion groups identified similar issues: lack of participation and lack of depth in individual contributions clearly impacted the learning experience. Different modalities of dialogue were evident based on these four students' self-assessments. The role of self-monitoring, reflection on discussion postings, and self-evaluation facilitated students to critically examine their role within the discussion group and its implications.

## **Conclusions and Implications**

Online communities of practice offer much to the learner in terms of cognitive and affective development and opportunities for growth as independent learners. Online communities offer students opportunities to practice newly acquired language in a supportive environment with peers. In our study, students worked together to create new

understandings and constructed knowledge as they engaged in making sense of educational theory. Students' expertise developed as they built upon each others' understanding and worked within their zone of proximal development (Vygotsky, 1978). Students supported and challenged one another as they worked to become independent learners and deepen their knowledge base. Learning was meaningful as students were able to tailor their learning to topics/interests that were worthwhile to themselves. Students were able to ask questions or present ideas that they may not have within the larger class or in another format. Students came to know each other as individuals and formed learning relationships that provided affective support that further aided their learning and development.

Students' professional learning is supported within a CoP, which integrated technology into a learner-centered curriculum. Students were afforded multiple opportunities for professional sharing. By faculty constructing relatively small online discussion groups, students were able to share ideas and expertise within a supportive community. Students' personal and professional experiences enhanced discussions as students learned about each other's experiences. Students demonstrated a willingness to share, which enhanced their participation within the discussion groups. Students have specialized knowledge and expertise from their personal experiences and work in schools. Sharing this expertise can enrich the lives of teachers and provide practical solutions to classroom issues. Through dialogue, students generated new understanding about self, collaboration, teaching, and learning. While students worked together they were able to share their experiences, which helped validate and support others. Students provided one another with social and emotional support as well as multiple resources, which created a safe, reciprocal, and trusting learning environment. Online discussions can help sustain, extend, and support students' learning within a community of practice. Our research examined authentic student contributions centered on learner-centered theory to facilitate and support the development of independent learners.

Online CoP can support the development of independent learners. Students shaped their communities around topics or issues that were important to the members. We believe online discussions can encourage autonomy as students choose what to discuss and when, or even whether to enter into an existing discussion topic. Our students became more self-directed as learners as they shared unique personal and professional experiences, self-assessed, and sought out solutions. Through online discussions, students were able to explore alternative perspectives, grapple with the tension between educational theory and practice, and thus assimilate knowledge through dialogue. The alternative perspectives gained from classmates working in a variety of positions and school environments provided a spectrum of ideas and solutions. This interactive process was one springboard for developing a shared vocabulary. Students offered one another examples of alternative frameworks and understandings of pedagogical theory in practice. Students also supported each other as they shared successes and wrestled with teaching innovations to transform their teaching practice. Students created their own meaning while building upon existing understandings and beliefs as they collaboratively addressed the realities of classrooms and schools. Placing students at the center of their learning affords learners with a new paradigm that can support their development as independent learners. In our research, we found that CoP, independent learning, and integrating real-world experience combined to create a strong learning experience for students and for faculty.

Faculty need to 1) structure the online learning experience, and 2) build self-assessment into the process. They need to take the necessary time to have clear goals for the purpose of participation and share those with students and carefully think about the ways in which to configure online discussion groupings. We configured our discussion groups to promote alternative perspectives based on school contexts. However, we found that personalities and experiences could either enhance or diminish students' participation. We monitored but did not participate in discussion groups because we felt it was important to allow students to have ownership and to develop their own voices without faculty intervention. It was a challenge for faculty to take a hands-off approach with regard to students' discussions. However, we had a clear hand in designing the online experience that supported student growth. In addition, faculty need to be willing to give up class time in order to support students' developing expertise with the technology, build community, and promote meaningful self-assessment. The authors philosophy to support independent learning, made it difficult to find a supportive assessment model. Some students were not as engaged as others, and this limited their development as independent learners. We needed an authentic way to evaluate our students' participation and a mechanism that would allow our students to make visible the degree to which they participated within a reflective framework. We decided to implement a self-assessment component to make explicit both our expectations and students' understanding of our expectations.

As a result of our first stage of research, it is clear that self-assessment by students should be developed and built into CoP. Individual self-assessment was viewed as one way to authentically address discussion-group dynamics and

highlight the importance of individual contributions impacting the learning community. By taking time to assess how discussion-group dynamics were playing out, we discovered that individual self-assessment was one way to address functioning and non-functioning discussion groups. Individuals' number and level of contributions directly influenced the direction and depth of discussions. We suspect that to a large extent positive or negative experience with online discussion is based upon personal learning-style preferences rather than being a function of online learning. The role of learning-style preferences and participation within CoP is an area in need of further investigation. Faculty also needs to be engaged in the reflective process of assessing the ways in which discussion groups' function. Accountability to others is a strong motivator for student participation when working within a supportive, functioning discussion group. In light of our study, we are curious to further explore the following: How do faculty design the affective role of online learning when they have limited or no classroom interaction? How can faculty scaffold higher-order thinking to promote a deeper level of understanding of course content among students with differing levels of expertise and knowledge? How can faculty design self-assessment to not only assess their understanding of their teaching but also the learning of their students?

With regard to students, self-assessment allows them to identify areas of difficulty and problem-solve in order to become more fully engaged and make meaningful contributions to their discussion group. This aspect of self-assessment encourages students to have ownership, voice, and direction of their own learning. Self-assessment brings learning full circle. It is our hope that students' awareness of their quality of contributions shaped their future participation in online discussions. Self-reflection supports the notion of continuous improvement and highlights the importance of individual contributions to a web-based learning community. Awareness of individual contributions and impact on others enhanced online discussion groups and CoP by supporting a learning community designed to facilitate independent learners and the social construction of knowledge.

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