An Exploratory Study of Levels of Interaction Occurring with Graduate Students in an Online Literacy Course

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Abstract

This study surveyed graduate students prior to, and immediately following, a literacy course offered online to determine their interactions with the content, interactions with the instructor, and interactions with peers throughout the semester. The study also examined graduate students' opinions about the convenience and perceived benefits of taking this course in an online format. Findings indicated that, prior to the course, less than one guarter of the graduate students (22%) expected the online experience to enhance their understanding of course content at a high level. Prior to the course more than half of the students (52%) also expected a high level of frequent and meaningful interactions with the instructor. When asked about their expectations of meaningful interactions with peers, more than half (52%) of the students indicated high-level expectations on this item. Following the course, students were again asked to rate their interactions with course content, with the instructor, and with peers. In all instances interactions were described as high level and increased following the course. This exploratory study provides interesting insight into the importance of aligning course content and instruction with student expectations when taking online courses. More research is needed to evaluate the impact interactions with content, instructors, and peers has on the learning experience for graduate students enrolled in online courses.

Résumé

Cette étude a fait l'objet d'un sondage auprès d'étudiants diplômés, avant et immédiatement après un cours d'alphabétisation offert en ligne, pour déterminer leurs interactions avec le contenu, les interactions avec l'instructeur, et les interactions avec les pairs tout au long du semestre. L'étude a également examiné les opinions des étudiants diplômés sur la commodité et les avantages perçus de suivre ce cours dans un format en ligne. Les résultats indiquent que, avant le cours, moins d'un quart des étudiants diplômés (22 %) s'attendaient que l'expérience en ligne améliore leur compréhension du contenu du cours à un niveau élevé. Avant le cours, plus de la moitié des étudiants (52 %) s'attendait également à un niveau élevé d'interactions fréquentes et significatives avec l'instructeur. Quand on leur a demandé quelles étaient leurs attentes d'interactions significatives avec les pairs, plus de la moitié (52 %) des étudiants ont indiqué des attentes de haut niveau sur cet élément. Après le cours, les étudiants ont à nouveau été invités à évaluer leurs interactions avec le contenu du cours, avec l'instructeur, et avec les pairs. Dans tous les cas, les interactions ont été décrites comme étant de haut niveau et augmentées à la suite du cours. Cette étude exploratoire fournit un aperçu intéressant sur l'importance d'harmoniser le contenu des cours et l'enseignement avec les attentes des étudiants lorsqu'ils suivent des cours

en ligne. Plus de recherche est nécessaire pour évaluer l'impact que les interactions avec le contenu, les instructeurs, et les pairs ont sur l'expérience d'apprentissage pour les étudiants diplômés inscrits à des cours en ligne.

Introduction

Graduate student engagement and interactions have been identified as important features that must be considered when developing online graduate courses (Dixson, 2010; Martin, Parker, & Deale, 2012). According to seminal research in this area, three types of interactions affect the experiences of students: interactions with course content, interactions with instructors, and interactions with peers (Moore, 1989; Moore, 1993). Interaction with content involves students' interactions with the course materials and key concepts to be learned. Interaction with instructors involves the many ways instructors teach, guide, correct, and support students throughout the learning experience. Interaction among peers includes, but is not limited to: debate, collaboration, discussion, peer review, and informal learning activities. Studies have shown that online courses are more successful when multiple engagement, communication, and interaction strategies are utilized (Dixson, 2010; Dennen, et al, 2007; Goertzen & Kristjansson, 2007; Gosmire, Morrison, & Van Osdel, 2009; Hughes, 2008; Kehrwald, 2008; Shea, Li, & Pickett, 2006).

Organization and Supervision of Literacy Programs – Kindergarten through Grade 12 (K-12) is the capstone course in a Master's Degree (M.Ed.)/Reading Specialist certification program offered in the College of Education in a large comprehensive university in the United States. During the course, graduate students study the role of the reading specialist and develop leadership skills associated with the role. Students are expected to conduct a needs assessment in a K-12 environment, analyze it to determine the strengths and areas of concern in the literacy program, and address one concern that was identified through the needs assessment. The concern is addressed through the design and delivery of a professional development plan that includes coaching in the area of literacy. This course was delivered online for the first time during a fifteen-week semester in 2014.

This exploratory study compared pre- and post-survey results obtained from graduate students enrolled in the online literacy course just described. While the majority of the course was taught using an asynchronous format, one synchronous activity and two campus visits were required. The synchronous activity was in the form of a literature circle, a format where graduate students all read the same book then each group member leads or contributes to the discussion as part of the process (Daniels, 2002). The visits to campus were required in order to obtain feedback on the new online format being utilized for the course. Students were surveyed prior to, and immediately following, the course to determine their interactions with the content, interactions with the instructor, and interactions with peers throughout the semester. The study also examined graduate students' opinions about the convenience and perceived benefits of taking this course in an online format. Results of the various interactions (e.g., content, instructor, and peers) and feedback from students are provided in this paper.

Literature Review

Online learning is becoming more and more prevalent in higher education. According to the National Center for Education Statistics (2012), it is estimated that one in four higher education students have taken at least one online course in the course of their educational career (National

Center for Education Statistics; 2012; Parker, Lenhart, & Moore, 2011). Furthermore, over the past ten years, the number of students taking at least one online course increased by over 570,000 to a new total of 6.7 million (Allen & Seaman, 2013). Learner engagement, faculty and student expectations, and interactions in online courses are described in the following sections.

Faculty/Student Expectations and Engagement with Online Courses

Dixson (2010) studied student engagement in online classes and found student-student and instructor-student communications are correlated with higher student engagement in a course. Cherng-Jyh & Abdous (2012) described the predictive relationship between faculty engagement and student satisfaction, as well as with final course grades, when courses were delivered using multiple delivery modes (e.g., face to face; satellite broadcast; and live video-streaming); they found that, regardless of the delivery mode, faculty engagement in student learning and satisfaction were extremely important. Other researchers (Cole, Shelley, & Swartz, 2014; Kranzow, 2013) concluded that types of interactions and engagement are critical to student satisfaction and the learning experience). Garrison, Anderson, & Archer (2001) analyzed the critical thinking processes of online students and the influences of instructional design and facilitation. These researchers maintained the importance of creating a critical community of inquiry in online settings in their original work and their retrospective ten years later (Garrison, Anderson, & Archer, 2010).

In an effort to close the digital divide, Osborne, Kriese, Tobey, and Johnson (2009) studied faculty and student expectations with online learning. They found that faculty expected students to learn less in online courses; they expected students to think online courses would be easier; and they believed students who procrastinate should not take these courses. First-time students taking online courses shared these beliefs. After students took more than one online course, these expectations changed and the students seemed more comfortable with the format and amount of communication that occurred during online learning.

Koper (2015) determined the most prevalent student expectations are: collaboration with peers and teachers, pacing, practical application, a proactive instructor, and deep learning. Reisetter, LaPointe, & Korcuska (2007) compared the attitudes of online and traditional students and found that while both groups made gains in mastering course content, the traditional students gave credit for their success to the teacher and classroom structure while the online students credited the structure of the website and access to the instructor. In terms of peer interaction, traditional students valued interacting with their peers on a regular basis, while online students admitted this immediate interaction was not as readily available online.

Studying the experiences of graduate students in online learning environments helps higher education institutions determine if student expectations have been met. Expectations can be met at a greater level in online courses when course outcomes, student services, and academic and technical supports are adequately implemented (Deggs, Grvoer, & Kauirik, 2010). Kuboni, (2014) studied preferred learning modes of graduate students and found collaborative learning to be the most preferred method of learning among the students in the study. Graduate students preferred working in teams but requested specific information on the amount of participation and contribution required.

Bernard, Abrami, Borokhovski, Wade, Tamim, Surkes, & Clement (2009) found multiple and varied interactions affected student achievement in their meta-analysis of the experimental literature on online and distance learning. Borokhovski, Tamim, Bernard, Abrami, & Sokolovskaya (2012) found that student interactions, specifically collaboration and cooperation as defined by Johnson and Johnson (2008), have the most effect on achievement and course outcomes. Garcia, Abrego, &

Calvillo (2014) found that engagement with the course content, social interactions including those with faculty and peers, and the development of relationships were critical to their online learning experience.

Interactions with Course Content, Instructor, and Peers

Various researchers have synthesized online learning approaches and developed frameworks for online interactions and the importance of classifying these interactions while also considering their interrelatedness (Bouhnik & Marcus, 2006; Tuovinen, 2000). Kayode, Ekwunife-Orakwue, & Tian-Lih Teng (2014) found that students interacted with course content more often than they interacted with instructors and peers. While some studies have evaluated the effectiveness of online learning for graduate students (Johnson, S.D., Aragon, S. R. Shaik, N., & Palma-Rivas, N., 2000), more research is needed on specific graduate student interactions during online experiences. Wagner (1994) defined interaction as reciprocal events involving at least two participants and actions in which the participants mutually influence each other.

Methods

Research Purpose and Aims

The main goal of the study was to understand how the online format of a capstone course in a graduate literacy program might impact interactions with the content, interactions with the instructor, and interactions with peers. Because this course had previously been taught in a face-to-face format, it was important to collect data about the online learning environment from the students' point of view. In addition, convenience and perceived benefits to the online format of the course were considered. The following research questions guided the study:

- 1. How does online learning affect interaction with content in a graduate literacy class?
- 2. How does online learning affect interaction with the instructor in a graduate literacy class?
- 3. How does online learning affect interaction among peers in a graduate literacy class?
- 4. According to graduate students, what are the conveniences and perceived benefits of an online learning environment?

Participants

Graduate students (n = 25) enrolled at a large public university (over 15,000 undergraduate and graduate students) located about 25 miles west of Philadelphia participated in the study. Twenty-five graduate students were enrolled in the course. Twenty-two of the twenty-five students were practicing K-12 teachers. The remaining three students were full-time graduate students. The class was comprised of 1 male student and 24 female students. These students were enrolled in a Master's of Education (M.Ed.) program and working towards a Reading Specialist certificate. All enrolled graduate students were invited to participate in this research study.

Procedures

The graduate students were introduced to the research study in an on-campus meeting held prior to the beginning of the semester. At this meeting, the researcher explained the study, discussed consent forms, and allowed opportunities for questions/clarification. Participation was voluntary and all enrolled students chose to participate in the study. The human subjects committee (HSC) at the university approved the study. To maintain confidentiality, survey information was password protected on the website and printed as needed from the web-based survey instrument. Individual

identification was not required for this research study.

A researcher developed pre- and post-survey was administered at the beginning and end of the semester and is detailed in Appendix A. Five questions used a Likert scale (1 = Not at all; 2 = Somewhat; 3 = Very; and 4 = Extremely) for participants to rate the types of interaction (interaction with content, interaction with instructor, and interaction with peers), while 4 open-ended items allowed participants to provide additional feedback about the convenience and perceived benefits of the online learning experience. In order to enrich the study and add specific examples, graduate students' work samples and responses to activities, such as discussion boards, Voice Threads, Glogsters, and formal assignments, were also analyzed for interactions with content, the instructor, and peers.

Data Analysis

A theoretical framework was created based on the research questions and a log of patterns and themes was kept throughout the data collection process. Themes from the research questions and additional data emerged through grounded theory and these themes were analyzed through open coding, axial coding, and selective coding (Strauss & Corbin, 1990). The theory evolved during the research process due to the relationships between data collection and analysis. Information analyzed through open, axial and selective coding was merged into new and existing concepts while the data was compared and contrasted and the theory modified. The researcher developed themes after careful consideration of the survey instrument and work samples. The original three themes (interaction with course content, interaction with instructor, and interaction with peers) under consideration were analyzed. A second review of the data revealed the two additional themes of convenience and perceived benefits. A final review of the data revealed no new themes had emerged, thus, it was determined that data saturation had occurred. Member checking was not conducted since the data was compiled after the semester was over.

Quantitative Results

Interactions with Course Content

Table 1: Interactions with Course Content

Survey	High Level Interactions
Pre Survey	22%
Post Survey	33%

In order to study interactions with course content, graduate students were asked to what extent they expected to enhance their understanding and knowledge of course content in this online course. Less than one quarter (22%) of the graduate students surveyed expected the online experience to enhance their understanding of course content at a high level (rated as extremely or very much). More than half (57%) expected the course to enhance their knowledge of content

somewhat. After the semester, a greater number of participants (33%) felt the experience enhanced their understanding of course content at high level. Table 1 highlights the percentage of students who expected interactions with course content at a high level, prior to and after completion of the course. Results of "extremely" and "very" reflected a high level interaction.

Interactions with the Instructor

Students were next asked to what extent they expected to interact with the instructor in this online course, and the extent to which these interactions had occurred by the end of the course. Fifty-two percent of graduate students expected to have high level, frequent and meaningful interactions with the instructor. After the semester, this number rose to 55%. Table 2 highlights the percentage of students who expected interactions with the instructor at a high level, prior to and after completion of the course. Results of "extremely" and "very" reflected a high level interaction.

Table 2: Interactions with Instructor

Survey	High Level Interactions
Pre Survey	52%
Post Survey	55%

Interactions among Peers

Results on the survey prior to the semester about expectations for interactions among peers were extremely similar to expectations about interactions with the instructor. Again, 52% of participants indicated high-level expectations for meaningful interactions with peers. After the semester, this number rose to 66%, which indicates that the online learning environment fostered meaningful interactions with peers. Table 3 highlights the percentage of students who expected interactions with peers at a high level, prior to and after completion of the course. Results of "extremely" and "very" reflected a high level interaction.

Table 3: Interactions with Peers

Survey	High Level Interactions
Pre Survey	52%
Post Survey	66%

Qualitative Results

Interactions with Course Content

The slight improvement from pre- to post-survey related to interactions with course content was supported by comments from the participants. Several students indicated they were able to make their own connections because they were doing the majority of the work independently without face-to-face discussions. Students also credited interactive materials and videos, group discussion boards, books, articles, Voice Threads, and narrated PowerPoint lectures with being "helpful in hearing others' perspectives and understandings of the course content." Another student commented that the online environment "gave the opportunity to look at things in a different way." Other students found the online learning environment challenging because "you are essentially teaching yourself." Another student agreed with this sentiment, stating on the survey, "due to the nature of the course I really had to take ownership over my own learning."

Voice threads created by students to present and discuss pros and cons of reading programs were analyzed to better understand interactions with course content. In this assignment, graduate students used an existing framework to understand, explain, and compare their reading program to the framework. Conclusions were to be drawn about effectiveness and appropriateness of the reading program according to the framework. These work samples yielded excellent examples of graduate students using a combination of photographs, screen shots, slide shows, and narration to understand and explain their school's respective reading programs to the instructor and to fellow students.

In addition, a discussion board about the role of the reading specialist was analyzed. It was found that the graduate students effectively synthesized the information presented the prior week into a thorough Reading Specialist job description. Emerging themes included the way graduate students highlighted the importance of fostering a valuable literacy program for all students and creating a balance between the three roles (instruction, assessment, and leadership) of the Reading Specialist in the job description. It was clear from analysis of this discussion board and the ensuing job description activity that the graduate students understood all three roles of the Reading Specialist and gained a more in-depth understanding of the leadership role explored in this course.

Interactions with the Instructor

Students felt that videos and discussion boards were quickly commented on and answered by the professor and that she collaborated adequately using the Learning Management System. They also commented that the professor was readily available to answer questions through email and responded promptly. Students also appreciated the help section created on the class homepage. One student commented on the survey, "I was able to communicate with the instructor easily in this format. I knew that I could always share questions and concerns through the online format." Another commented "The professor was always available through email and online posts so it was very similar to being in a regular classroom." One student preferred in–person communication and added this comment to the survey, "It made it difficult sometimes to fully understand assignments because all discussion was through e–mail." Based on students' comments, it is clear that instructor involvement is essential in the students' experiences with an online graduate course.

In order to better understand interactions with the instructor, course assignments were reviewed for quality and grades. Ninety two percent of the students earned an A on the final assignment, which required them to synthesize all aspects of the course into a comprehensive professional

development plan and coaching log where they enacted parts of the plan in a school setting. Much of this assignment depends on communication and collaboration with the course instructor and peers to complete this assignment. The ongoing communication and feedback provided by the instructor through email, online office hours, and responses to discussions seems to have improved the performance of the graduate students on this culminating assignment.

Interactions with Peers

Students called many of the tools used to communicate "new and exciting", including Blackboard Collaborate, Google Docs, Glogster, and Voice Thread. Email, texting, Facetime, Google Hangouts, and phone calls were also used to communicate between group members for certain projects. While most students were satisfied with peer interaction, some students actually felt there was too much collaboration with classmates. For example, one student explained on the survey that writing a group summary with five classmates online was tedious. Another student expressed concern on the survey that "different people run on different schedules so some people were working on assignments immediately, and others wanted/needed to wait." On the other hand, a few students commented that despite the online environment, they would rather meet in person for discussion because talking in person is more authentic. One student commented, "I feel like the online format forced collaboration among peers. It made discussing ideas and perspectives more comfortable than in a whole class setting". One student summarized the collaboration with peers by stating on the survey, "It was helpful to be able to communicate and learn collaboratively with others in the class without necessarily being there."

One synchronous student interaction that was analyzed more closely was a literature circle format where graduate students all read the same book then each group member was assigned a role to lead or contribute to the discussion. Roles included discussion director, connector, summarizer, and vocabulary enricher. During the small–group synchronous discussions, most of the groups successfully utilized the Collaborate online classroom program and some groups used additional tools (whiteboard, video) within the program to enhance their discussions. Most participants talked about personal connections, real–life examples, and many technology examples related to change, as well as discussed which character from the book they related to the most.

Convenience of the Online Course

When asked about expectations for convenience in an online learning environment, 72% of graduate students were extremely or very confident that online delivery would meet their learning needs. This number was reduced to 66% at the conclusion of the course. Comments on the survey indicated that, at times, the flexibility worked well and one student described it as "super convenient to do the course work according to my schedule." However, other students explained they had to invest even more time in the course to sign in and check discussion boards and posts. Many students indicated that there was benefit to not meeting in person every week. One student commented that she would not have been able to finish the M.Ed. program without the online opportunity because she had moved out of the area. One student summarized the convenience of online learning by stating "I could collaborate and ask questions on all assignments and I could decide when I was ready to complete the readings at a time when my brain was working best."

Benefits of the Online Course

Before the course, participants expected the online learning experience to offer benefits such as the freedom to work according to the student's own schedule and/or pace, more flexibility, more time with family, fewer time constraints, and the opportunity to save on gas money. One student stated on the survey, "As a graduate student who takes courses after school, it is sometimes very

difficult to concentrate in a three hour class after a long day at school. With online learning, I can work on the weekends and at my own pace when my mind is fresh and ready to work." Many students commented about being anxious to see the "unique benefits that come along with this type of online experience." Other students commented on the survey they hoped the course would help them become better equipped to use technology as a means for collaboration, to strengthen written communication skills, and to provide ideas for using technology in their own classrooms. One student summarized the expected benefits of online learning by stating on the survey, "I can work at my own pace, while still having definite deadlines to keep me focused."

After the semester concluded, students commented that the online format helped them become more comfortable with virtual collaboration and interactions. On the survey, many students stated they appreciated not having to drive to campus one night per week and this provided more time to focus on learning versus getting to campus on time for class. One student summarized the benefits of online learning by explaining, "It was extremely convenient to be able to work from home on the course content." In addition, several students commented on the survey about the collaboration with peers. One student explained that through collaboration with peers, "I learned a lot about my communication style and leadership skills." Another stated "I learned many ice breakers and tech tools."

Limitations

Limitations to credibility and authenticity exist in this study. The results may not be generalized to a large population because a small sample was used. Results may be influenced by the researcher's personal biases and researcher's presence during data gathering. In addition, participants may have been hesitant to criticize the course content. Nevertheless, key themes emerged for consideration.

Discussion and Recommendations

Results from this exploratory study highlight the numerous advantages including flexibility, engagement, and high level, faculty-student and peer-peer interactions that online course delivery provides. Results also reinforce the importance of course scaffolding that aligns learning outcomes with the teaching expectations of faculty, and the learning expectations of students. Comments made by participants from the study indicated that ongoing, frequent communication and collaboration are highly valued and critical to success of the course. Furthermore, students reported greater flexibility in scheduling, less travel, and independent and self-paced learning of the content.

Worth mentioning again, this was the first time this particular course was offered in an online format and reflect some of the challenges students experience when they have limited experience with online learning. Students who are accustomed to face-to-face interactions may require some transitional activities in order to facilitate comfort with, and ability to navigate, in online learning environments. One clear recommendation emerging from this study is to transition courses, and students, to fully online environments in phases. When converting a face-to-face course, perhaps move it to a blended format, and then to a fully online format. When working with cohorts of students, this transition can ease them into comfort and proficiency in fully online learning environments over time and may limit some of the growing pains associated with fully online environments.

A consistent finding through quantitative and narrative responses reinforces the need to create

interactive and engaging learning environments. Students frequently commented about the need to receive clear and continuous feedback from the instructor; and to engage in meaningful interactions with peers and with faculty. In fully online courses there are opportunities to enhance these interactions and should be more fully explored. One recommendation from this study is to evaluate opportunities for virtual meetings using meeting software such as Google Hangouts, Skype, and Elluminate in order to create a greater sense of community and to enhance interactions. Using these tools provide students and faculty with the ability to connect from anywhere and still retain the advantages of not having to commute, provide for flexibility in the learning experience, and provide for human interactions, albeit from a distance.

Conclusions

All types of interactions surveyed in this study (interactions with content, interactions with instructor, and interactions among peers) were described as high level and increased from the beginning to the end of the semester. The findings of this study indicate that these interactions were valued by graduate students and enhanced their online learning experience. It is important to note that faculty should share clear expectations for the goals of the online course as well as expectations for the amount and quality of interactions. This information was shared in a face-to-face meeting at the beginning of semester as well as through weekly announcements on the course home page.

Since the students valued the independence of the online environment and felt it enhanced interactions with course content, it is important for the instructor to foster these interactions and build ownership of course content. This ownership can be facilitated by use of interactive videos and other materials, group discussion boards, and narrated Power Points. In order to facilitate interactions with the instructor, it is important for the instructor to monitor interactions and quickly comment on videos and discussion boards as well as answer emails in a timely manner. The help section created for students' use on the home page was also helpful since it allowed students to answer each other's questions in an informal manner. In order to encourage peer interactions, facilitating communication during group work can be accomplished through the use of use of tools such as email, texting, Face Time, and Google Hangouts.

The discussion should not end here; further research is necessary to ensure that educators realize the impact of fostering interactions in the online learning environment. One way to supplement this research would be to study a larger and more diverse sample or to conduct a longitudinal study on interactions during multiple semesters of online courses. Additional interviews and observations with graduate students would add to this body of work. Because interaction with content (Moore, 1989) showed the most growth and success from the pre- to the post-survey, it would be beneficial to conduct more research on the specific activities, formats, materials, concepts, and technologies used to enhance this type of interaction and build student ownership of the materials and concepts related to the course.

Kuboni (2014) found that collaborative learning is the preferred learning mode of graduate students, therefore, it is important to maintain learning relationships that foster meaningful and engaged interactions as demonstrated by responses to students from this study. Effectively balancing interactions with the content, with instructors, and with peers in online courses is a challenge. Course content, required assignments, class size, faculty expertise with online teaching, and technological resources are among the many factors to be considered when developing new online courses; criteria for these decisions are not easy to establish. This exploratory study provides interesting insight into the importance of aligning course content and

instruction with student expectations when taking online courses. More research is needed to evaluate the impact interactions with content, instructors, and peers has on the learning experience for graduate students enrolled in online courses.

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APPENDIX A

Student Survey

ituu	ent Survey						
	se answer the forments where re	_		sed on the scale listed below the question or add			
1.	. How influential has the online learning experience been in helping you change or improve your own literacy instruction?						
	Extremely	Very	Somewhat	Not at all			
2.	To what degre	e is it c	onvenient to w	ork with the online learning experience?			
	Extremely	Very	Somewhat	Not at all			
3.	To what degree has the online learning experience helped to enhance your understandin the course content?						
	Extremely	Very	Somewhat	Not at all			
4.	4. To what degree has the online learning experience helped to provide opportunities for collaboration between you and the instructor/professor?						
	Extremely	Very	Somewhat	Not at all			
5.	5. To what degree has the online learning experience helped to provide opportunities for collaboration between you and classmates/peers?						
	Extremely	Very	Somewhat	Not at all			
6.	. Please cite at least one example of how the online learning experience has helped you change or improve your literacy instruction.						
7.	. Please cite at least one example of how the online learning experience affected opportunities for collaboration among classmates/peers.						
8.	What personal	benefit	to you do you	receive from the online learning experience?			
9.			•	ou interact with classmates/peers during the online Il that apply and feel free to add comments.)			

___ Discuss school's professional learning plan

___ Talk with others about course content, assignments, and goals

Discuss/collaborate on observations or demonstration lessons
Discuss/collaborate on planning lessons
Discuss/collaborate on coaching sessions
Discuss/collaborate for other reasons (please list examples)
Utilize others as a resource in the online learning experience (please list examples)
Other (please list below)

Thank you for participating in this survey!