Using Social Media in Teacher Preparation Programs: Twitter as a Means to Create Social Presence

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Abstract
This exploratory study examines the use of the micro-blogging service Twitter in multiple sections of a pre-service teacher education program in a diverse, urban university. The use of Twitter aimed to encourage student-student and student-teacher interactions, thus enhancing social presence and diminishing the sense of isolation in online classes. Data were obtained by monitoring student Twitter and blog posts, as well as from a student survey where students indicated how they perceived their sense of belonging to a community of learners. Findings indicate that students' conversations revolved around five themes: (a) field experience, (b) emotions, (c) cooperating teacher, (d) class, and (e) relationships. Their conversations were also classified into three sub-categories based on intended audience: (a) students, (b) teacher, and (c) no one in particular. The results from the survey indicate that the group with the least interaction was the group that indicated feeling more engaged in the learning process and more connected to other learners. Implications of these findings and recommendations for future research are discussed.

Keywords: Twitter, social presence, online learning, online classes, micro-blogging, social media

Educators and scholars alike agree that the micro-blogging service Twitter has a positive impact on engagement and has potential as a powerful learning tool (Kassens-Noor, 2012). Researchers have found that students enjoy using Twitter as part of their class assignments (Lin, Hoffman, & Borengasser, 2013). Yet its potential in both face-to-face and online learning is still unknown because of limited empirical evidence on its application in education (Veletsianos, 2012). In an educational setting, Twitter has been used primarily to elicit instant feedback in face-to-face classes, to enhance social presence in online classes, to provide timely updates to course information, and as a way to motivate students through the use of new technologies (Lin, Hoffman, & Borrengasser, 2013).

Online Classes

Educators and students alike are attracted to online classes because of the lack of restrictions in time or place (Lee & Choi, 2010). However, research shows that students rate their online courses as less positive experiences than do students in traditional courses (Rabe-Hemp, Woollen, & Humiston, 2009). That same distance or separation that provides accessibility and flexibility to online students and teachers also makes online learning particularly difficult for many students (Borup, West, & Graham, 2011). Online learning requires a high degree of self-motivation, self-discipline, and self-direction (Moore, 1997). In his seminal article, "Toward a Theory of Independent Learning and Teaching" (1973), Moore stated that the success of distance learning (distance

learning is synonymous with online learning) depends on the extent to which the student can learn autonomously and without directive. Yet online learning presents unique issues for students: poor participation, procrastination, and feelings of isolation are among the most often cited issues that students face in online classes (Rabe-Hemp, Woollen, & Humin, 2009).

One of the biggest criticisms of online courses is that the interaction between students and faculty is inferior to those that take place in a face-to-face class, making engagement difficult. Student interactions with faculty and peers are critical to learning and are at the core of any educational situation (Rabe-Hemp, et al., 2009). Vygotsky's (1978) scholarship illustrates the essentially social nature of human learning and emphasizes that cognitive understanding and the personal construction of knowledge depend on relations with others. The more students are engaged in the learning experience, the more they learn. Students who learn at a distance tend to be less satisfied with their overall experience than those who attend face-to-face classes due to the lack of a social component (Pigliapoco & Bogliolo, 2007). There is a strong correlation between the frequency of interaction and the sense of community and satisfaction online students have (Dawson, 2006). When interactions allow students to establish their social presence, that social presence has direct academic implications. Learning outcomes are enhanced when students become both active and purposeful participants in the educational experience (Rabe-Hemp et al., 2009). It has been argued that the instructor's role in online classes is to facilitate effective communication among students (Pigliapocco & Bogliolo, 2007), monitor students' involvement and progress (Castles, 2004), and provide timely feedback to students (Bocchi, Eastman, & Swift, 2004). However, concerns have been raised that instructor-facilitated discussions have potential to become instructor-centered discussions rather than discussions among students, (Lee & Choi, 2010), thus undermining the goal of students becoming active and purposeful participants.

Concerns also exist over the quality and effectiveness of instruction in online classes. Educators are often hesitant to offer online classes because they feel that instruction may be compromised (Allen & Seaman, 2013; Pucel & Stertz, 2005; Ward, Peters, & Shelley, 2010). Many of these Educators feel that although online content is more accessible, simply being able to obtain information aligns poorly with the complexity of the learning process. The thought process of learners who are confronted with new material may not be able to organize and prioritize new, complex information in order to proceed with the tasks related to learning. These Educators feel that instructor behaviors and characteristics are fundamental in learning process (Ward, Peters, & Shelley, 2010). According to Pucel and Stertz (2005), learners in distance programs have to take responsibility and be self-directed in implementing study strategies. Even in instances in which a course is highly structured and includes detailed directions and guidance, in the absence of dialogue, students must decide for themselves what to do. Because of the separation of instruction and learning, it is essential for instructors to structure their communications more carefully and deliberately than they do in a face-to-face class. The absence of visual cues can make the conversation between instructor and student(s) more difficult. For effective delivery of information, the course format must be presented in a manner that is interactive, flexible, and self-directed, which will enable students to access and

understand the content more easily (Lee & Choi, 2010).

Although online learning has gained immense popularity, studies show that online courses have a higher student dropout rate than traditional face-to-face courses (Kop, 2011; Lee & Choi, 2010). According to Pigliapoco and Bogliolo (2007) the lack of physical interaction leads to a sense of isolation that impairs the development of a sense of community, which is often considered to play an important role in student performance, satisfaction, and persistence. Pigliapoco and Bogliolo (2007) feel that the correlation between sense of isolation and student dropout rates from distance learning classes suggests that educational institutions must find a way to enhance the feeling of connectedness among students which means that student participation in online courses has to be encouraged and that students need to be made aware that their contributions in the learning process are important (Pigliapoco & Bogliolo, 2007). According to Lee and Choi (2010), students who actively participate are more likely to complete the online course (Lee & Choi, 2010). To date, however, research has found no significant relationship between peer interactions and dropout rates from online courses (Pigliapoco & Bogliolo, 2007).

Why *Twitter?*

One way educational institutions have attempted to enhance connectedness among students is to look at multimedia techniques that have been effective outside of traditional education settings. Micro-blogging services such as Twitter have been used in a wide range of venues and for a variety of purposes, including as an advertising medium, and – in educational research – as a tool to understand where students learn, that is, the physical location where student learning takes place (Wright, 2010).

According to Berk (2009), 50% of college students today are disengaged, unmotivated, and disinterested. They are what Berk calls the generation "born with a chip" (p. 3). They are technology savvy, tend to use search engines to gain information, and are interested in multimedia. These students not only use Internet content but also create it; they are accustomed to instantaneous speeds; they learn by trial and error; tend to multitask; often communicate visually and have short attention spans. According to Berk, these are students who want participatory in-class and out-of-class experiences. The challenge is finding a way to create that participatory experience. Social media, such as Twitter, might be the answer.

Given that 750 million people have active Facebook accounts and that 50% of users log onto Facebook on any given day, it is easy to understand that people enjoy staying connected to each other through social media (Bicen & Cavus, 2011). Although Facebook is the most popular social networking site for college students, Twitter has been the favored means for networking within the learning environment and Twitter is considered more suitable for an ongoing public dialogue (Junco, Heiberger, & Loken, 2011). Other online systems require students and faculty to login and navigate to several locations before they can engage in discussion and collaboration. This makes communication less immediate and makes communications seem more formal, less free-flowing and lacking the just-in-time feeling that is more in tune with social presence. Twitter, however, with its immediacy and ease-of-use, allows individuals to share their ideas without having to wait to be able to login (Dunlap & Lowenthal, 2010). With its 140-character limit, Twitter forces students to focus what they want to communicate (Domizi, 2013) and it has been found to help develop reflective practices and a sense of community (Wright, 2010).

Some research indicates that Twitter helps students feel more connected to each other and at the same time connected to the content of the course (Domizi, 2013; Wright, 2010). According to Junco et al. (2011), students who participated in Twitter assignments had higher GPAs and were more engaged not only with each other, but also with faculty. These authors found that through Twitter students built relationships across diverse groups that might otherwise never have connected. Twitter allowed for extended conversations that included expressions of students' feelings and shortcomings and the authors noted that through Twitter students had constant support for academic and personal issues. Twitter also serves to enhance deep learning by taking the focus off the teacher and shifting it to the student (Gonzalez, Ingram, LaForge, & Leigh, 2004).

Methodology

The aim of this exploratory study is to understand whether the use of Twitter as a tool in a teacher preparation program has an impact on the students' sense of belonging to a community of learners. This study was implemented in both a face-to-face and online version of the class entitled *Teaching Students with Exceptionalities in Inclusive Settings* to determine if there are any differences in the frequency and types of social media communication in a class where students have the opportunity to interact in person on a regular basis as opposed to an online class where face-to-face interaction is absent. Both classes were co-taught by the same instructors who are also the authors of this paper.

Participants

The students who participated in this study were pre-service teachers enrolled in an undergraduate class at a four-year urban public research university located in South Florida. This university is a Hispanic-serving institution and over 88% of the student body self-identify as members of minority groups. Within teacher preparation programs, 75% of the students identify as Hispanic, 10% as Black, 11% as White, and 5% Other. In this particular course, students learned about inclusionary practices in the K-12 school system. As part of the class requirement, students were required to complete 10 hours of observations in an inclusion class where a general education teacher and a special education teacher worked together in a general education setting to provide educational services to students with and without disabilities.

For the purpose of this study there were three groups of students. Two groups were enrolled in the same six-week long online summer class while the third group was enrolled the following semester in a traditional 16-week long face-to-face class. The 19 students enrolled in the online class were randomly assigned to one of two micro-blogging groups. The control group (micro-blog-online) consisted of nine students who were asked to complete their class discussions by means of a more commonly used method of communication in online classes: the discussion board on Blackboard (a course management system). The treatment group (Twitter-online) of 10 students was asked to complete the discussion requirement using a Twitter account. The third group (Twitter-face-to-face) of 27 students belonged to a face-to-face class, which met once a week for 16 weeks. These students were also asked to complete their discussions using a Twitter account. Since this course did not use the Blackboard system, a micro-blog group was not assigned. Both the online and the face-to-face classes were required to complete their discussions over the course of their 10 hours of field experience. Therefore, despite the greater length of the Twitter-face-to face class as compared with the online class (16 weeks

versus 6 weeks), both classes completed their discussions over the same amount of time.

Procedures

For the online class, the first week was used to allow students time to coordinate their placement in the schools where they would do their hours of observation. During the next five weeks students were asked to comment on their experiences during those hours and to reply to the postings of other students in the class. Students posted their comments either via Twitter or by creating a micro-blog on the Blackboard discussion board, depending on the group to which they had been assigned. Each student had to post at least three original comments about her field experience each week and also reply to at least three comments posted by classmates. Using Twitter, face-to-face class students also had to complete at least three original postings per week about their field experience for a period of five weeks and were required to respond to at least three comments posted by classmates.

At the end of both semesters during which this study took place, all three groups of students completed a ten-question yes/no survey regarding their experience with either Twitter or the Blackboard discussion board. Surveys of the summer semester students included a question that allowed researchers to differentiate between the Twitter-online group and the micro-blog-online group. Based on the results of the Twitter-online group and in order to gain a better understanding of students' perspective on the use of Twitter in the class, an open-ended question was added to the survey of the Twitter-face-to-face group, which allowed students to freely express their opinions about the use of Twitter as part of the course.

The postings for the students in all three groups were examined. A total of 1153 individual discussion board and Twitter postings were reviewed. Of this number, 91 (8%) of postings were made by students in the online-micro-blog group, 151 (13%) were made by the Twitter-online group, and 911 (79%) were from the Twitter-face-to-face group. We performed a preliminary inductive analysis of the students' tweets and Blackboard discussion blogs of both the online class and the face-to-face class in order to identify specific patterns and themes. These data were examined across students utilizing coding categories and the identification of themes as per Bogdan and Biklen's (2007) approach to qualitative data analysis. At the conclusion of the classes, all three groups completed a short survey. The Twitter-online and micro-blog-online groups accessed an electronic survey via a link located on a page within their individual student portals. Twelve of the nineteen students (63%) participated in this voluntary survey. Five of the nine students (56%) assigned to the micro-blog-online group, and seven of the ten students (70%) assigned to the Twitter-online group responded to the survey. Twenty-four of the 27 students (89%) enrolled in the Twitter-face-to-face group completed the survey in class. The low response rate on surveys mirrors that of the low response rate experienced by the university on course evaluations completed for online courses. All responses were kept anonymous for all groups. Student surveys were also analyzed for both classes. Descriptive statistics were prepared for the survey items.

Results

Blog and tweet data yielded five different categories (identified in Table 1). A set of sub-categories was identified based on the intended recipient(s) of the postings. These three categories were: (a) posting aimed at another student, (b) posting aimed at the instructor, and (c) posting aimed at no one in particular. The researchers used a fully-crossed design with two coders to analyze the

students' postings and a Kappa statistic was performed to determine consistency between both raters. Each posting was counted one time and then recorded into one of the five categories. Each posting was then classified again into one of the sub-categories. The frequencies for each category are shown in Table 2. Any postings that could fit into more than one category were revisited in the context of the whole conversation in order to more accurately place that posting in the most appropriate category. The instructors' postings were not included in the analysis.

Table 1

Categories for Students Postings

Category	Description
Field Experience	Postings regarding field experience, strategies used in the classroom, observations of teacher/student interaction.
Emotions	Postings reflecting on their own feelings, fear, excitement.
Cooperating Teacher	Postings regarding the students' relationships with their cooperating teacher at their field experience K-12 school.
Class	Postings regarding the course requirements, due dates, assignments, field placement
Relationships	Postings regarding every day occurrences indicating camaraderie and not related to field experience or course.

Table 2

Summary of Results of Student Postings by Categories

Categories	Twitter			Blackboard Micro-blog			Face-to-face			Total Percent
	S[a]	T[b]	O[c]	S	T	O	S	T	O	
Field Experience	30%	14%	56%	21%	0%	79%	47%	4%	49%	31%
Emotions	30%	1%	69%	0%	0%	100%	42%	2%	56%	20%
Cooperating Teacher	50%	0%	50%	38%	0%	62%	27%	0%	73%	3%
Class	53%	32%	15%	39%	0%	61%	30%	21%	49%	10%
Relationships	51%	9%	40%	10%	0%	90%	82%	0%	18%	36%
Means	42.8%	11.2%	46%	21.6%	0%	78.4%	45.6%	5.4%	49%	

[a]Responses aimed at another student. [b]Responses aimed at class instructor. [c]Responses aimed at no one in particular.

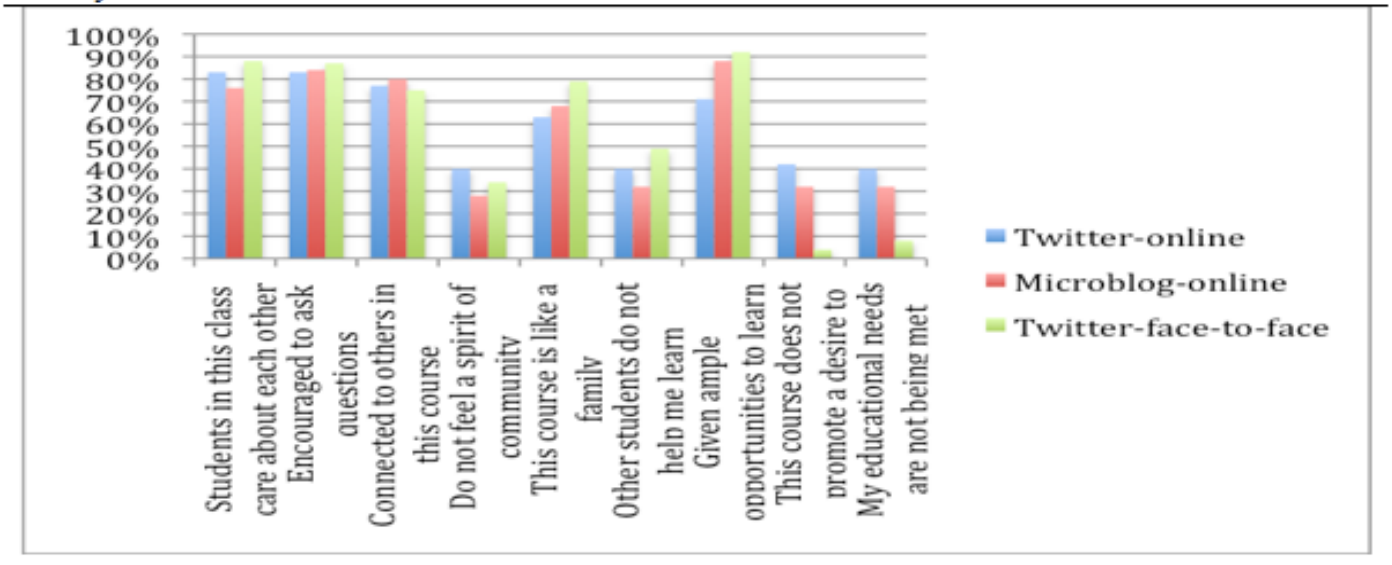
As shown in Table 2, the majority of postings fell into one of two categories: *field experience* with 358 postings (31% of total posts), and *relationships* with 415 postings (36%). Postings under the *category cooperating* teacher comprised just 3% (34 postings) of total posts. Findings also show that in the sub-category *communications with instructor* postings there were more postings in the Twitter-online group with 17 out of 151 postings (11.2%), followed by the Twitter-face-to face group with 49 out of 911 postings (5.4%) and non-existent in the micro-blog-online group (0). In the sub-category *communications aimed at no one in particular,* the micro-blog-online group had 71 out of 91 postings (78.4%), whereas the Twitter-online group and the Twitter-face-to-face group had similar results with 69 out of 151 postings (46%) and 446 out of 911 postings (49%) respectively. Additionally, although it appears that in the *communication between students* category the Twitter-face-to-face group had more postings with 415 out of 911 postings (45.6%) than in the Twitter-online group with 64 out of 151 postings (42.8%), upon closer examination of the individual tweets it became evident that the same people who had formed groups during class were aiming their communications primarily at the others in their group, and were only occasionally communicating with students outside of that group.

Some of the highlights of the survey findings (see Figure 1) indicate that all three groups were encouraged to asked question (87% of Twitter-face-to-face, 83% of Twitter-online, and 84% of micro-blog-online). However when asked if the they felt their fellow students care about each other, the Twitter-face-to-face and the Twitter-online groups had similar responses with 88% and 83 % respectively, whereas only 76% of the micro-blog-online group felt that way. When asked if students felt that the course was like a family 79% of the Twitter-face-to-face group indicated they did while 63% of the Twitter-online and 68% of the micro-blog-online felt that way. Additionally, 80% of the micro-blog-online group felt connected to others in the course at the same time as 75% of the Twitter-face-to-face and 77% of the Twitter-online groups indicated they felt that way.

Additional findings show that 67% of students enrolled in the Twitter-face-to-face class did not like using Twitter. They indicated that it was too time consuming and that they would rather have conversations about their field experience in class. These students did not see the relevance of Twitter to their class. They found it difficult to tweet and in some cases would forget to do it. However, an additional 25% of students in the Twitter-face-to-face class indicated that they enjoyed using Twitter as they engaged with students in the class and read about other classmates' experiences. Eight percent of the students did not provide any feedback in regards to Twitter.

Figure 1

Survey results



Discussion

Postings: The results of the present study support prior research indicating that Twitter helps students build relationships (Junco et al., 2011). However, the results of the analysis for the online class and the face-to-face class show several differences in the relationships that developed or evolved during this study. Due to the nature of the assignment, which was to discuss their field experiences, the vast majority of students' postings centered on observations they made during their time in classrooms. The major differences between each of the three groups emerged during analysis of the intended recipients of the communications, in other words, who the students were communicating with and the types of interactions that took place between the different students and the instructors. Students in the Twitter-face-to-face class forged friendships either because they shared other classes or because they found common interests that united them. These groups were easily discernible during the class meetings and through their tweets since the tweet threads of these groups regularly contained the same group of students. Additionally, students who tended to limit their interactions with others while in class also tended to limit their interactions via Twitter. These students also tended to make general statements that were aimed at the class as a whole, and limited their communications with specific students to the minimum required for the class assignment.

For students in the micro-blog-online group, actual dialogue taking place on the class Blackboard site was almost non-existent. Once the assignment had been given, two weeks elapsed with no postings at all. This group of students posted an initial blog introducing themselves to their classmates, but after this initial communication there was silence. Initially, the intent was to allow students to freely express their ideas both through the use of Twitter and in the micro-blogs, however, it became evident that the frequency of the communication in the micro-blog-online group was limited. As research has shown that an instructor's intervention is important in encouraging and directing student blogs (Freeman & Brett, 2012; Minchoa, 2009; Sawmiller, 2010) the need for instructor facilitation became evident especially in light of the relatively short duration of the summer semester (six weeks). Furthermore, 10% of a student's grade was dependent on her blogging. Therefore, upon seeing no online communication taking place, the instructors decided to post a series of possible questions on which students could base their communications; however, what took place was more similar to the submission of a research paper rather then a dialogue between classmates. In answer to the instructors' prompts, the students began to write about topics such as Response to Intervention or teaching strategies. The comments made to other students also revolved around these topics. Little was said about the classroom observations and there was no mention of what was occurring in their own online class. There was also no communication aimed at the instructors. In fact, communication with instructors tended to be via electronic mail.

The postings of the pre-service teachers/students in the Twitter-online group were more involved. There tended to be a mixture of postings with students aiming their comments at the class in general but also at other individual classmates. Conversations revolved around the field experience observations, with students commenting on what was happening in the classes that the others were observing. Conversations about how they would handle difficult situations in the classroom or what kind of activity might be fun to do with students

were commonplace with this group. An example of these types of conversations between students revolved around a class spelling activity with the first student commenting on the fact that her students do not use vowels when they write. The second student responded by saying, "that's funny but so sad what do they have against the vowels?" (The lack of punctuation is typical of Twitter postings because of the 140 character limit). The conversation continued with comments about "texting lingo" as one of the students put it. In a different posting one student asked, "Is anyone else concerned about inclusion? I worry about meeting all my students' needs and making sure they are all successful." Students asked for, and received, help regarding their own online class. These communications, for example, were related to class assignments, test dates, or even technical difficulties with Twitter or with the online component of the class. One student who was having trouble posting an assignment simply tweeted: "having *Taskstream* problems help!" There were also personal comments and conversations about topics that had nothing to do with the field experience observations or the class assignments. Topics such as the last game played by the local football team were also a common occurrence with this group. Lastly, there was a great deal of communication with instructors. Students asked for advice, for clarifications on class assignments, and also made general comments on their expectations for their own futures as teachers. One student for example, tweeted, "plan to ask her on my next visit for the teacher interview what question should be asked?" (The grammatical errors were in the original tweet). This student needed clarification on what types of questions to ask her host teacher during the interview that was part of the class assignment.

Survey responses: Students' responses to the surveys, however, did not mirror the frequency or tone of the communications between students and between students and instructors in the Twitter-online group. The interactions of the Twitter-online group were most affable and these students showed greater interest in what others in the class had to say and do than did those in either the Twitter-face-to-face or micro-blog-online groups. According to the survey results, however, the Twitter-online group was also the least satisfied with the use of Twitter as a class component. The Twitter-online group felt less connected to others than did the members of the other groups and felt their needs as learners were not being completely met.

The results of this study, therefore, contradict the results of past research that found students who used Twitter as a means of communication with classmates and teachers felt more connected with each other and with the content (Domizi, 2013; Wright, 2010). One potential difference between the students studied here and the work of Domizi and Wright is that these students were culturally and linguistically diverse. In their study of connections between social networking on Facebook and social capital, Valenzuela, Park, and Kee (2009) found that minority college students used social networking less often than their White peers, that a minimal connection existed between Facebook use and social capital, and that this connection was more prominent for non-White students. However, to date no studies have looked specifically at Twitter use by culturally and linguistically diverse students such as those included in this study. It is possible that the lack of connection felt by the students in this study may be related to their race, language, or ethnicity.

Summary of Findings: Members of the micro-blog-online group who tended to limit their participation to answering prompts from the teachers felt a greater sense of community than the Twitter-online group. The micro-blog-online group was also more satisfied with how their needs as learners were being met. The group that showed the most overall satisfaction was the Twitter-face-to-face group. Although this group was not as satisfied as the micro-blog-online group with the connections between themselves and others in the group, these students were the most satisfied overall, especially with the opportunities they had to learn. This finding confirms previous research indicating that students in face-to-face classes are more satisfied with their classes than are students enrolled in online classes (Lee & Choi, 2010; Rabe-Hemp et al., 2009), due to the possibility of weekly interactions in the classroom with classmates and instructors.

There may be several factors that explain the discrepancy between the answers of students in the online class to the questions on the surveys and the postings. One factor may be the limited time the students had in the summer semester (this was a six-week course). Students assigned to the Twitter-online group had to create Twitter accounts and get accustomed to using Twitter for the purposes of this course. Students in the micro-blog-online group, however, were already accustomed to using Blackboard, since it is often used by instructors at this university both as a means of posting assignments and as a means of communicating with students. Also, fewer students who were a part of the micro-blog-online group responded to the survey. Students in the micro-blog-online group earned a higher average final grade in the class than did students in the Twitter-online group or the Twitter-face-to face group. It is possible that the students randomly chosen to be a part of the Blackboard discussion group were inherently more involved in their classes and consequently more satisfied with their learning experiences. Perhaps there is also a disconnect between what students prefer for ease of response and simplicity as compared with what actually makes them feel connected to others. The discrepancy between the answers to the survey and the quality of the postings of these two groups does not change the fact that the postings of the Twitter-online group were more in depth and engaged than were those of the micro-blog-online group, especially with regard to the students' reflections on their actual field experience.

Implications

This study focused on the use of Twitter as a means to create a sense of social presence in online classes. As more universities shift towards online classes and programs, it will be imperative to find ways to keep students engaged and connected (Rabe-Hemp et al., 2009). Particularly as we prepare educators to work in urban settings, the element of class discussion and social connections between teacher candidates and with professors are imperative for students to be able to explore their own awareness of diversity and implications for ethnically and linguistically diverse learners (Kea, Campbell-Whatley, & Richards, 2006). It is through these personal interchanges and reflections that we can shape reflective practitioners who will be prepared to make connections with diverse students and their families.

While Twitter has been found to be an effective communication tool in some instances (Lin et al., 2013), future studies should examine its effectiveness as a way to keep students and teachers connected in fully online classes. This is particularly relevant

for culturally and linguistically diverse students, on whom there is a complete dearth of research. There is also further need to explore the disconnect between what many students prefer due to convenience and flexibility – such as online learning and Twitter – as opposed to where they actually feel most satisfied and connected in their learning. No doubt, online learning will continue to grow and social communication methods will continue to shift towards online, abbreviated platforms. As researchers and educators it falls on us to find ways to bridge these disconnects so that the modalities available for learning both match the format desired by students and produce outcomes that match the desired results for teacher candidates.

Future research will need to explore ways to use current modalities, such as Twitter, to better engage students, particularly in online courses. Alvarez McHatton, Smith, Brown, and Curtis (2013) suggest that teacher preparation now faces two distinct challenges: recruiting and retaining more culturally and linguistically diverse teacher candidates and preparing teacher candidates to be more culturally competent educators. Within urban education, these are certainly priorities, however, we will need to explore how this preparation will occur. Recent research has demonstrated that amongst those who are 18-29 years of age, 90% of Whites and 96% of Blacks are actively engaged in social networking (Smith, 2014) as are 84% of Hispanics (Lopez, Gonzalez-Barrera, & Patten, 2013). While students of color are clearly engaging in social networking, it is not clear if these connections are enough to bring about a satisfactory feeling of connectedness within classroom settings. What remains now is finding effective means of tying proficiencies and preferences for this modality to meaningful and effective classroom experiences.

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