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## The Offline Nature of Online Community: Exploring Distance Learners' Extracurricular Interactions

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### Abstract

Despite the importance of interpersonal contact to students' sense of community, little is known about how online students form relationships outside of class. Drawing on interviews with 20 students from one online doctoral program, I explore the ways in which distance learners create community outside of class. In the case study I explore how students use social media and group texting apps to develop relationships with peers. I also explore how online students connect in-person at study groups and sporting events. Lastly, I consider the ways in which a three-day, in-person orientation helped online students connect on and offline. Findings indicate that online students' perceptions of community were not limited to their in-class experiences. In addition to their in-class interactions, online students were impacted by their extracurricular interactions in digital and physical spaces.

*Keywords:* community, online learning, social presence, face-to-face interaction, orientation

## Introduction

In their most recent report, which utilizes federal data from 4,700 institutions, Allen and Seaman (2017) found that 29.7% of all students had taken at least one distance course, and 14.3% were in fully online programs. Graduate students represent 20% of the online student population (Allen & Seaman, 2017). In this paper, I explore the factors that contribute to a students' sense of community in one online graduate program. The growth in the number of students enrolled in online graduate programs and the relative lack of literature on their experiences makes this topic worthy of inquiry (Berry, 2017a).

## Literature Review

When the first online programs developed nearly 30 years ago, they were thought to be a novelty that would support a small set of learners (Whiteside, Garrett, Swan, 2017). Over time, online programs have continued to expand and diversify. In their 2016 report on online programs, Allen and Seaman wrote, "When more than one-quarter of higher education students are taking a course online, distance education is clearly mainstream," (p. 3). Online programs offer distinct benefits to students and to universities. For students, online programs provide the opportunity to access high-quality curriculum at any time, from any place (Ortagus, 2017). For universities, online programs offer the opportunity to increase revenue and expand educational access (Christensen & Eyring, 2011). As a result, more than 40% of universities consider expanding online enrollment as central to their strategic plan (Allen & Seaman, 2016).

Despite the benefits of online learning to students and to schools, online programs face a significant challenge – attrition (Angelino, Williams & Natvig, 2007). Though there are no numbers available on nationwide retention in online programs, researchers estimate that online attrition may be 10-20% higher than attrition in face-to-face programs (Angelino, Williams & Natvig, 2007; Bawa, 2016; Ivankova & Stick, 2007).

There are many reasons why a student may withdraw from an online program. Academic difficulty, issues with motivation, and challenges with learning technologies can influence the decision to leave an online program (Lee, Choi, & Kim, 2013). Lack of social interaction is also a key factor in the choice to leave an online program (Ke & Hoadley, 2009). Students may leave online programs because they struggle with making friends and receiving social support in distance programs (Hart, 2012).

Research on students in traditional, face-to-face programs suggests that students who develop positive relationships with peers are less likely to depart from an academic program prematurely and that students who feel they are a part of a community are less likely to withdraw from their studies (Tinto, 1997). A community is a supportive social group, where participants develop feelings of membership, influence, fulfillment of needs, and shared emotional connection (McMillan & Chavis, 1986; Rovai, 2002). In a learning community, students work collaboratively towards shared academic goals and provide each other with a sense of social and emotional support (Yuan & Kim, 2014). Academically, a sense of community is associated with increased participation and deeper engagement (Tinto, 1997). A sense of community is also associated with decreased isolation, improved stress management, and greater overall wellbeing (Pyhältö, Stubb, & Lonka, 2009).

A sense of community is beneficial for online students as well (Rovai, 2003); Liu, Magjuka, Bonk, and Lee (2007) argue that a sense of community is associated with perceived learning for online students. In a mixed methods case study of an online MBA program, they found that students who felt a sense of community were more likely to feel feelings of engagement, learning, and satisfaction. Sadera, Robertson, Song, and Midon (2009) similarly found a strong correlation between engagement in an online community and academic success. For online students, classroom experiences play a significant role in the development of peer relationships and a sense of community (Garrison, 2016). Instructors can use pedagogical practices to help create learning communities (Berry, 2017b), and icebreakers and group activities can help students learn about their peers and develop positive relationships (Shackleford & Maxwell, 2012).

Research on online academic communities has mostly focused on students' experiences in online classrooms (Garrison, 2016). A meta-analysis of 42 studies of online communities by Ke and Hoadley (2009) revealed that more research needs to be done on online students' extracurricular experiences. In this study, I explore distance learners' experiences outside of class, in both online and offline settings. While researchers have explored how students in face-to-face environments have utilized technology, particularly social media, to facilitate in-person interactions (Boyd & Ellison, 2007; Ellison, Steinfield, & Lampe, 2007), few researchers have considered how students in fully online academic programs use technology to connect in-person. In a longitudinal study of online learners, Conrad (2005) found that in-person meetings strengthened students' online interactions. Haythornthwaite (2006) similarly found that in-person meetings helped online students develop connections and build rapport. This study seeks to fill the need for more contemporary research on online students' extracurricular interactions on and offline.

## Theoretical Framework

I use social presence theory to explore online students' extracurricular interactions. Social presence is a way to understand the feelings of connection and closeness that may develop in virtual environments (Short, Williams, & Christie, 1976; Whiteside et al., 2017). Researchers have long thought that computer mediated communication created a degree of "transactional distance," where users felt communication was distant, impersonal, and disconnected (Gunawardena & Zittle, 1997). As communications tools developed, it became increasingly possible for web users to communicate quickly and to use audio and video to connect more personally (Whiteside et al., 2017). New technologies allowed web users to reduce transactional distance through immediacy, the ability to respond quickly to other web users (Lowenthal, 2010). Users could send verbal cues, like personalized responses and praise, and nonverbal cues like smiles and eye contact. In connecting more quickly and personally, web communication became more authentic, and relationships were more likely to form (Lowenthal, 2010).

Social presence theory, then, describes the warm, sociable, and personal interactions that lead to interpersonal relationships in distance learning environments (Whiteside et al., 2017). Social presence can be cultivated in a variety of ways (Garrison, Anderson, & Archer, 2010). For example, instructors can cultivate social presence by facilitating opportunities for dialogue and collaboration. Students can cultivate social presence by sharing personal information with peers and sending personalized messages to

colleagues (Garrison et al., 2010). Students can also cultivate social presence through honesty and collaboration (Bolliger & Inan, 2012).

Frequent, positive contact and interpersonal attraction are prerequisites to building relationships in a virtual environment (Garrison, 2016). As social presence is cultivated, students are more likely to develop feelings associated with a sense of community (Kreijns, Kirschner, & Vermeulen, 2013).

## **Methodology**

### **Research Question**

This paper emerged from a larger study where the research question was “How do students in an online doctoral program define and experience community?” The research question guiding this specific paper is “What extracurricular spheres, networks, and relationships impact students’ sense of community in an online doctoral program?”

### **Setting for the Study**

This study was conducted in an online Doctorate in Education program at the University of the West (a pseudonym). The three-year interdisciplinary program focused on education leadership. Students in the program were midcareer professionals, and came from a variety of different sectors, including education, government, business, and health care. At the time of the study the program was in its second year, and had 160 students enrolled. The cohort was ethnically diverse, and consistent with the gender breakdown of the program, 60% of the students interviewed were female, and 40% were male. Students met twice weekly in a synchronous virtual classroom. Data for the study were collected from students in their first and second year of the academic program.

### **The Case Study**

To explore online doctoral students’ sense of community, I used qualitative methods. Qualitative methods allow for researchers to prioritize participants’ perspectives in data collection and analysis (Merriam, 2014). Since online students’ perspectives have been underrepresented in higher education literature, it is important for researchers to capture their unique perspectives.

### **Data Collection**

Findings for this paper were generated primarily from interviews conducted with 20 students in the online program. The interviews were semi-structured and lasted approximately 45 minutes each. The interviews focused on several topics, including definitions of community, experiences of connection and closeness within the online program, and classroom and extracurricular experiences of community. Interviews were semi-structured, beginning with a protocol based on the aforementioned topics, but I also followed up on with themes and topics that the students raised during the interviews. I also asked the students to add information that was not covered in the interview, to make sure that I captured the students’ perspectives as well as disconfirming cases of community.

Prior to conducting interviews, I conducted 60 hours of observation of video footage of online courses and analyzed the six message boards attached to these courses. I used what I found in video and message boards to inform the process of selecting students to interview and sought participants based on their participation in the online classrooms. Dawson (2008) and Rovai (2003) both found that students who participate more frequently in online classes have a greater sense of community. After observing video footage and analyzing message boards, I was able to get a rough approximation of the students who spoke and shared most and least frequently in the online classes. I solicited participants at both ends of the spectrum to get a range of experiences, reaching theoretical saturation after interviewing 10 students from the first cohort and 10 students from the second cohort.

Collecting data from the online classrooms also allowed me to understand the nature of the community in the online program. In interviews, I was able to ask students about specific social interactions and the ways in which in-class experiences impacted their out-of-class community. While this data does not factor explicitly into this paper, gathering it was important for enhancing my understanding of the online experience.

### **Data Analysis**

To analyze the data, I used Braun and Clark's (2006) approach to thematic analysis. I began with a set of codes drawn from the literature on community (McMillan & Chavis, 1986) and social presence (Garrison, 2016; Whiteside et al., 2017), and after analyzing the data using these codes, I identified new codes that emerged from data. These codes referred to spaces of connection (i.e., football games, libraries, orientation), ways of connection (i.e., online, offline, in class, extracurricular), and modes of communication (i.e., phone calls, emails, social media, and texting). Themes that held across interviews were used to build the case study.

### **Limitations**

While there are no national numbers on enrollment in online doctoral programs specifically, data suggests that graduate students, including masters and doctoral students, represent 20% of the online student population (Allen & Seaman, 2017). Focusing on online doctoral students is a niche population within a relatively small group of students. Another limitation of this work is the role that the in-person orientation played on students' interactions. While the program was fully online, the initial in-person meeting was a catalyst for further offline interaction. It is difficult to disentangle the impact of an initial in-person meeting on the learning community that subsequently formed.

### **Findings**

Data suggests that the online community was just as robust outside of the classroom as it was inside of the classroom. Inside of the classroom, I observed students joking, giving advice, and sharing personal experiences. Students shared in interviews that they were having similar experiences outside of the classroom. According to students, there were three main types of extracurricular interaction in the online

program: checking in through texting and calling, bonding through social media and mobile apps, and providing social support through face-to-face interaction. In the paragraphs that follow, I describe how these types of interaction impacted students' sense of community. I begin by describing the orientation, a catalyst for the online community.

### **Orientation: The Foundation of the In-Person Community**

Students described the community in the online doctoral program as a thriving, engaged, and interactive social group. In interviews, students indicated that the orientation played a critical role in increasing their familiarity with peers and creating the context for community. The program at the University of the West required students to meet once annually for a three-day, in-person orientation. At orientation, students learned how to use the virtual classroom and to access support services, including financial aid and the library. The orientation included shared lunches and dinners, and unstructured social time. The in-person meetings helped the online doctoral students bond as a group; June describes it this way:

In my (online) Master's program, I don't think I saw any of my classmates face-to-face because there was a ton of people. That is one of the things I really like about this program...even though you see some people virtually, we get to see them face-to-face. At the orientation we saw the education building, we had classes in there. We spent most of our time at the hotel there on campus and it was again an opportunity to live the campus life but then the most important part of it was we got to gel a little bit more as a cohort. Being able to put the faces to the names and getting to experience the classes as well was great.

In connecting with peers at orientation, some of the online students found that they desired more consistent engagement. Andre, a second-year student, describes his experience this way: "We all enjoyed the orientation...we wished there were more. Through our social media we are trying to set up unofficial immersions every semester because I think everybody wants to connect on a more personal level."

For Andre, and for others, the orientation played a key role in helping online students reduce transactional distance and increase social presence. By providing online students with a space for sustained, positive engagement with peers, the orientation helped create a foundation for the community that formed inside and outside of class. In the paragraphs that follow, I explore other ways that online students interacted outside of class, and the impact of these interactions on students' sense of community.

### **Checking in Through Texting and Calling**

Online programs are often described as lacking intimacy and interaction (Whiteside et al., 2017). This perspective contrasts with the experiences of students in the online doctoral program at the University of the West. In this program, students were part of a thriving, highly interactive social group. Eighteen of the 20 students had at least one friend in the program with whom they spoke with weekly through phone, email, and text message. Marcus, a second-year student in the program, described his colleagues as "reaching out with every form of communication." There were many reasons that students in the online program called and texted each other. In interviews, students said that they would call peers to review assignments, ask questions, and vent about the program. One particular theme that held across interviews was that students were using text messages and phone calls to "check in" with peers in the online program. In a check in, a

student would send a brief message to a peer to ask about their peers' academic progress and emotional well-being. Kayla, a first-year student, said "we text to keep the morale up." Marcus said, "We check in, to make sure people know they are not alone."

Through checking in, students provided their peers with academic and social support. Lena, a second-year student with a chronic illness, noted that her peers would often call or text her to inquire about her health. When she was particularly ill, Lena's peers would notify the professor and work together to provide her with additional academic support. Lena described her experiences this way:

I get sick pretty frequently in the program. My friends in the program always call me. They always make sure my assignments are turned in. My professors are amazing with helping me out and understanding, so the level of support I've received has been amazing. I can't even point to a word that describes how they support me in this program...I would not be able to do it without my classmates.

Through checking in, students cultivated two core components of social presence—immediacy and intimacy. In checking in, students were able to give and receive almost immediate support from peers. The nature of their conversations was typically intimate, as students shared details of academic, personal, and professional challenges. Checking in also helped students cultivate different components of community. In sharing this information frequently, students were able to develop feelings of trust and shared emotional connection. Over time, students were able to fulfill each other's needs by providing academic and emotional support to address personal challenges. Karen, a first-year student, described it this way: "It really is a community in the sense that everybody has each other's back. Everyone helps each other and everyone responds to each other's need for help." For Karen and for others, the feelings of trust, shared emotional connection, and fulfillment of needs contributed to students' sense of community in the online program.

### **Deepening Bonds Through Social Media and Mobile Apps**

According to student interviews, more than half of the members of each cohort were in a private Facebook group. Students used the group to share pictures from orientation, memes about the doctoral experience, and questions about the online program. By providing an opportunity to regularly interact with peers, Facebook was an important vector for developing social presence. However, the most beneficial element of the Facebook group appeared to be its' ability to provide a space for students to provide social and emotional support at a distance. Here is how Juan describes these benefits:

Most of us knew someone who did doctoral work later in life. But now via Facebook I have 60 friends who know exactly what I am going through. Not only are we all doing doctorates, we are in the same program at the same point in life.

For Juan, the Facebook group provided a space to share the unique challenges associated with graduate school. The sharing that took place online provided a sense of camaraderie and community for students in the online program. Andre describes it this way:

I find our community is built through commiseration. People complain about something and everyone kind of agrees. That is not all that we talk about in our social media group...but it is a part.

For example, someone posted a syllabus from one of the courses and one of the responses from me was “omg there are weekly quizzes?” So people piled on, liked it, and said “omg I hate those things!” I think that’s how community is built in that environment.

Not all students used Facebook, and not all students engaged with the group the same way. Still, for students who did not connect through social media, knowing that their classmates were interacting in that way gave them a sense of support. William, a second-year student who did not use social media said “I don’t do much of social media but I know that I could reach out to any classmate at any time and get an answer back the same day.”

For students that connected through social media, Facebook use strengthened their sense of community in several ways. By creating a digital space outside of class where students could interact socially with peers, it helped students develop a group identity and a sense of belonging. In this space, students shared positive experiences, including pictures and jokes about the doctoral experience. Through this shared digital space, students could also share resources, answer questions, and coordinate events. By providing a space for students to fulfill academic and social needs, the Facebook group strengthened online students’ sense of community.

### **Mobile Apps in the Online Program**

Several students in the online doctoral program also used mobile group messaging apps, like Whatsapp and GroupMe, to communicate with peers. In interviews, it was common for students to participate in text groups of two to five peers. Within the smaller groups, students would have more personal conversations with peers. Keshia described the level of intimacy in the group chats:

We have been in the program for two years. People have had babies, people have gotten divorced, and have gotten married. We constantly reach out to one another during those times, whether it’s good or bad. If someone’s like five minutes late to class we text them, like, “Hey, what’s going on? Are you sick? Do I need to let the professor know?” We really take care of each other.

For Keshia, using these apps helped strengthen students’ social presence. The immediacy of communicating with peers through mobile media strengthened feelings of closeness. The intimate nature of mobile communication also strengthened students’ sense of community.

Juan said that group texting via mobile apps allowed for a deeper level of extracurricular engagement than participation in the Facebook group.

You are not going to complain about how you hated the last class on the cohort Facebook page...through WhatsApp you have more personal conversation. ...The scope and the audience you are presenting it to means that you are going to present in different ways with different level of vulnerability.

Like the Facebook group, the group messaging apps also contributed to online doctoral students’ sense of community. The texting groups were much more exclusive, and users shared more personal content in these spaces. As Juan notes, whereas students are more likely to police themselves in a group including the entire

cohort, group messaging apps lend themselves to more authentic conversation and venting. Group apps provided greater intimacy for communication. In using the apps, students cultivated social presence with peers, as they developed greater familiarity with peers and increased camaraderie. Over time, these feelings contributed positively to their sense of community.

### **Providing Social Support Through In-Person Meetings**

While many students chose to do the online programs for personal or logistical issues (i.e., late work schedules or a desire for more flexibility), several students found themselves visiting the main campus more than they intended. A small contingent of students formed a weekly study group that met in the library of the main campus, a topic I discussed in a previous paper. In this group, four to nine students would meet weekly in the library to study, peer edit papers, and provide social support to each other. This group developed into a robust subcommunity within the online program. Students provided significant academic support, and also gathered socially for events off campus.

Online students' in-person interactions were not only academic in nature, nor were they limited to small groups of students. During their first year in the program, about one quarter of the cohort (20 students) met up to attend a football game at the main campus. The trip developed from an idea students' shared through social media and in phone conversations. Building on their desire to recreate their orientation experience, students decided to organize a group trip to a football game at the main campus. Lena, a student who traveled across the country to attend the football game, said doing so was a valuable experience.

It was really fun (to attend the football game together). It was a chance for us to see each other and hang out outside of class instead of having to be together in orientation. There was a chance to really feel like we were a part of the campus and a part of the University of the West family. ...To be able to buy paraphernalia and to walk across campus, to wear our sweatshirts. It made us feel like a part of the campus community and like we are all Warriors, a part of the University of the West *family* instead of just University of the West students.

From Lena's perspective, attending the football game together enhanced social presence by making the online experience more real. Students were able to interact with their peers in a relaxed, fun environment, and also strengthen their connections to the program, to the school, and to each other. By meeting in person, the online students dramatically reduced transactional distance and increased feelings of closeness. Social presence was further strengthened by the fact that many students brought their family members to the football games. June described the impact of meeting online peers at the football game:

We are of a generation where we appreciate getting together face-to-face. Most of us are in our 40s and 50s so this was a great opportunity for us to connect live instead of on the computer. We were able to ask about family...we met a couple of our classmates' family members at the football game. It was kind of fun that way.

For June, attending the football game together provided another layer of intimacy in her relationship with peers. This sense of closeness contributed to her sense of community. Attending the football game also enhanced the students' sense of community in other ways. In meeting in person, students were able to strengthen feelings of membership to a cohesive social group. This meeting reflected a great deal of

influence, as peers were able to motivate each other enough to devote the time and money to this extracurricular experience. Students were able to develop an enhanced shared emotional connection through meeting in person. This connection fulfilled social needs to learn more about peers and develop a connection to the academic program and university as a whole. For the 20 students in the first cohort who attended the football game together, this social event contributed positively to their sense of community.

### **Barriers to Online Community**

There is a tendency in educational literature to present communities as utopias (Christensen & Eyring, 2011). There is also a tendency to present community as a binary, where it is either present and thriving or totally absent (Harrell, 2010). More recent research suggests that there are gradients to community, and that participation can vary (Berry, 2017c). Students in this study also suggested that there were some limitations to how they participated in the online learning community outside of class. The main barriers students identified were lack of time, infrequent social media use, and lack of resources to travel to in-person events. In juggling work, school, and personal lives, several students indicated that it was not possible to connect too frequently with peers outside of class. Still, these students felt a sense of membership in the community, and felt that they could access social and academic support from peers at any time. Only two of the students interviewed suggested that they did not feel connected to the community at all, yet these students also said that they were too busy to connect with peers. However, on the whole, most students were eager, proactive, and engaged with at least some component of the community in the online doctoral program.

## **Discussion**

Researchers have previously suggested that there may be some overlap between technology users' online and offline experiences. Ellison, Steinfield, and Lampe (2007) have found that Facebook friends can help provide social media users with social capital that can be beneficial on and offline. Boyd and Ellison (2007) have reflected on how social media users have sought to create connections between their online and offline networks. Madge, Meek, Wellens, and Hooley (2009) have written about how students have used social media to support and maintain newly forming academic relationships. While this literature has proved instructive, it is centered on undergraduate students in in-person programs. In this study, I provide insight into how doctoral students in an online program connect on and offline. The findings have important insight into where, how, and why community might be cultivated in an online graduate program.

### **Where Community is Cultivated**

The findings of this study challenge traditional notions that communities are contained to one space. By contrast, this data suggests that online students can connect across multiple spaces. Researchers exploring online learning environments must bear in mind the fact that students' interactions in multiple contexts can impact their sense of community. Focusing too narrowly on students' experiences in online classrooms can obscure their experiences in other spaces.

More significant than the number of extracurricular sites for interaction in the online program is the dynamic interplay between interactions in these spaces. Many of the online doctoral students in the study

navigated between online and offline spaces, going between them to meet various academic and social needs. Students met in person for an orientation, and then continued coursework online. They engaged with each other through social and mobile media, seeking to extend relationships that were forming in the classroom. When they needed more extended social interaction, they met in person again. Education researchers should continue to consider the academic, social, and emotional effects of shifting between online and offline spaces.

### **Why Community is Cultivated**

Data from this study suggests that online doctoral students desire peer interaction and are intentional about seeking it out. Students were keenly aware that a distance program offered reduced opportunities for social interaction. Unlike in a traditional program where you might bump into peers in the cafeteria or in the hallway, casual interactions were not generally a part of the online experience. As a result, students were intentional about engaging with peers. Students suggested in interviews that as distance learners, it was important to create social support networks within the academic program. Over time, students began to feel that these networks could not only help them navigate their coursework, but also they could provide social and emotional support for dealing with professional and personal challenges. Students in the online doctoral program relied on each other as a means of support for managing full-time work and full-time school. In making efforts to engage with peers weekly, they fostered the immediacy that creates social presence. Online students also ensured that they had a robust social network that could be leveraged for support at any time. Investing in community was an intentional act designed to help lessen anxiety over social isolation.

### **How Community is Cultivated**

The community in the online program developed organically, but not spontaneously. The residential orientation, which included three days of in-person meetings, was a catalyzing event that informed the development of the learning community. By meeting in person, students developed a rapport that they were eager to cultivate throughout the academic program. While meeting in person lent nicely toward informal interaction, it was not the simple meeting of peers that contributed to the students' sense of community. This particular orientation, which included a mix of academic and social events, as well as unstructured time, provided opportunities for prolonged engagement and personal interaction. The opportunity to get to know peers early on was critical in helping establish social presence, which informed the learning community.

The orientation was developed by faculty and staff to prompt the formation of the learning community; however, subsequent initiatives to create and maintain community were student-led. Students in the online program were proactive and developed academic and social experiences to meet their needs. When students wanted in-person socialization, they initiated meetups to do so. When students desired additional personal interaction, they created texting groups to connect with peers. The sites that sustained the online community were student-generated, student-led, and responsive to needs that emerged over the course of the program. Such a model of community formation challenges thinking that suggests that communities form in a linear fashion and solely in response to inputs by faculty and staff. Online learning communities can be fluid and responsive, changing in nature to students' needs and efforts.

Given its dynamic nature, researchers cannot impose rigid notions of where, how, and why online community occurs. Online communities are dynamic, contextual, and are influenced by many factors. Communities are not bound to one physical space or type of communication medium. Rather, students determine where community occurs and how it is cultivated across many spaces.

## Conclusion

In this paper I have explored online students' extracurricular interactions in one online doctoral program. Findings suggest that online students can have thriving communities outside of the classroom, on and offline. In this case study, students interacted outside of the classroom in three primary ways – checking in through texting and calling, strengthening bonds through social and mobile media, and intentionally meeting face-to-face. These interactions helped students establish social presence and contributed to a sense of community in the online program.

Findings from this study suggest that online academic communities can span multiple sites and planes. Researchers and practitioners who limit their inquiry of online students' experiences to their experiences in virtual classrooms are missing critical opportunities for interaction. By continuing to explore distance learners' extracurricular experiences, researchers and practitioners will be better able to engage and retain distance learners.

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