Using Social Media as a Platform for a Virtual Professional Learning Community

Laurie Bedford
Walden University

Abstract
The Professional Learning Community (PLC) has been used in higher education to provide a platform for faculty members to discuss challenges and build professional skills. While the virtual PLC (VPLC) is becoming a more acceptable delivery mechanism for faculty professional development, successful practices for designing these learning environments have received little attention in the research literature. Social media has been found to provide an environment in which professional learning can occur. It can be a platform which transcends the perceptions and structure of traditional online faculty development courses. However, social media use for professional development has primarily focused on informal learning in unstructured formats. The purpose of this interpretive qualitative study was to provide insight into online faculty members' perceptions and experiences interacting in a VPLC, within a social media environment purposefully designed for networking and learning. Twenty-two doctoral-mentoring faculty members from an online university agreed to participate in a VPLC using a social media platform, facilitated by expert colleagues. Upon completion of the 10-week experience, data was collected using a self-reflective interview strategy. This study confirmed previous research into the benefits of the PLC for professional development in academia and of using social media for professional learning. It extended the research to describe the structured VPLC using a social media platform to engage faculty, build relationships, and foster shared learning.

Keywords: professional learning community, faculty development, remote faculty, social media

Bedford, L. (2019). Using social media as a platform for a virtual professional learning community. *Online Learning, 23*(3), 120-136. doi:10.24059/olj.v23i3.1538

Using Social Media as a Platform for a Virtual Professional Learning Community

Institutions of higher education recognize the relationship between instructional quality and student success (Kane, Shaw, Pany, Salley, & Snider, 2016; Thurlings, & den Brok, 2017). In order to ensure the effectiveness of faculty, organizations view professional development as a critical component of support offered to faculty (Herman, 2012; Pesce, 2015; Saroyan & Trigwell,

2015). Faculty developers often work to offer learning opportunities for faculty through a number of delivery mechanisms including long- and short-term workshops, courses, and seminars. These offerings can include content on a variety of topics to support both individual and institutional goals (Steinert, 2010). However, these types of offerings situate learning in a primarily passive, instructor-centered environment (Dron & Anderson, 2014; Homes & Prieto-Rodriquz, 2018), with little opportunity for interaction or engagement by participants (Krutka, Carpenter, & Trust, 2017; McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2012; Urquhart et al., 2013).

Contemporary professional development teams need to consider how to best provide opportunities that align with a social constructivist paradigm in which learning is accomplished through the construction of knowledge blended with dialogue, relationships, and self-directed learning (Cartner & Hallas, 2017; Saroyan & Trigwell, 2015). Faculty developers are also challenged with meeting the needs of adult learners by creating trusting learning environments that allow for engagement and interaction. Providing opportunities for the building of skills and confidence through the sharing of effective practices can create a system in which the learning and content are individualized and evolve based on participant needs (Dron & Anderson, 2014; Krutka, Carptenter & Trust, 2017; McConnell, et al., 2012). Professional development in this context allows faculty members to share the unique expertise they bring to the learning environment, to learn from each other (Cox, 2012; Trust, Carpenter, & Krutka, 2017), and to better understand the relationship between new learning and enhanced teaching methods (Zhang & Wong, 2018).

These desired outcomes do not organically happen in a structured course that situates the participant within prescribed parameters of when and how to engage with peers (Dron & Anderson, 2014). Faculty development that supports participants as producers of knowledge based on their own experience rather than passive consumers has become more attractive in recent higher education trends (Sullivan, Neu, & Yang, 2018). The PLC has been identified as a means to meet these needs and to provide a platform for faculty members to discuss challenges and build professional skills (Wegner, McDermott, & Snyder, 2002) that result in the improvement of student learning (Cândida Müller & Lucchesi de Carvalho, 2014; Valle & Fuchs, 2015). While the PLC is emphasized as a platform for learning (Dufour, 2004), because interactions and engagement are an important part of the PLC experience (Wegner, McDermott, & Snyder, 2002), discourse within the PLC can also facilitate networking and relationship building (Krutka, Carpenter, & Trust, 2017; Van Waes, De Maeyer, Moolanaar, Van Petegem, & Van Den Bossche, 2018). Through discussion and discourse, these relationships can result in a heightened sharing of effective techniques and instructional strategies in a collegial environment (McAllister, Oprescu, & Jones, 2014; Valle & Fuchs, 2015). According to Thurlings and den Brok (2017), these benefits move the participant beyond the personal, classroom, student and institutional context to create a synergetic effect with the goal of increased faculty effectiveness.

The Virtual PLC

In recent years, the virtual PLC (VPLC) has become an option for faculty who are dispersed or cannot meet face-to-face for other reasons (Brooks, 2010; Lewis & Ewing, 2016; McAllister et al., 2012; Valle & Fuchs, 2015). Atkins, Koroluk, and Stranach (2017) posit that a PLC is a "multifaceted network" drawing on a combination of salient components that transcend resources, geography, and individuals (p. 4). Ford, Branch, and Moore's (2008) description of the VPLC further clarifies this definition by stating that it uses Internet technology to facilitate engagement and interaction among faculty for the purposes of relationship building and learning. Because the

learning is experienced digitally, the VPLC has the potential to mitigate biases and limitations that may exist in face-to-face or synchronous settings (Trust, Carpenter, & Krutka, 2017).

VPLCs draw on a variety of technology tools to provide social and dispersed learning opportunities, as described by Atkins, Koroluk, and Stranach (2017). For example, many VPLC delivery models use online blogs or discussion board features supported by email and document sharing to facilitate conversation among colleagues using an asynchronous design (for example, Bedford & Rossow, 2017). As an alternative, synchronous VPLCs can also be designed using videoconferencing software, such as Skype or Google Hangouts. In addition, these platforms can be combined for a blended format, offering flexible delivery of content and conversation (Hodes & Cady, 2013; Matzat, 2013).

Outcomes as a result of participation in the VPLC are similar to those resulting from traditional PLC delivery methods and include changes in cognition, knowledge, and beliefs (Blitz, 2013; Mintzes et al., 2013). Other benefits include the discovery of innovative ideas, currency in research and data, an expanded repertoire of instructional strategies, and updated discipline-specific knowledge (Atkins, Koroluk, & Stronach, 2017). In turn, these shifts in understanding and perspective can result in changes in professional behavior manifested in the classroom as innovative pedagogical techniques (Valle & Fuchs, 2015).

Professional Development Using Social Media

Nearly two thirds of adults in the United States regularly engage with some type of social media (Smith & Anderson, 2018). Following this trend, faculty developers have begun to focus on how these environments can be used for professional learning. Most recent literature indicates that social media has primarily been used by institutions of higher education for recruitment and marketing (Atkins, Koroluk, & Stranach, 2017; Peruta & Shields, 2017). In limited instances, the platforms have been capitalized upon to engage faculty and other stakeholders in informal learning with mixed results. For example, Sari-Motlah, Ebrahimi, Nikfallah, and Hajebrahimi (2016) found social media to be an effective means to share resources and communicate informally with remote colleagues. Similarly, Moorley and Chinn (2014) and Yee (2015) suggested ways platforms such as Twitter, YouTube, and Facebook could be used for just-in-time learning and for one-way communication with faculty. Conversely, Veletsianos (2017) found that the use of hashtags to promote professional learning resulted in unequal participation and outcomes.

Little attention has been given to the structure of the social media environment or commitment to participation within these informal settings. Without structure, learning within the social media environment can be manipulated by the dominant voices, the needs of the institution, and the technology being used (Robson, 2016; Veletsianos, 2017). In these cases, the interaction and engagement by certain community members can be inhibited and can subsequently impact learning outcomes (Thurlings & den Brok, 2017). However, the negative impacts of these forces may be minimized through design that considers the individual user. For example, according to Constantinides (2012), an emphasis on individual user characteristics can be used to shape interaction and guide the narrative of the community.

Social media as a platform for professional learning can also be used as a mechanism to mitigate challenges with other delivery methods, such as formal courses delivered via a learning management system (LMS). For example, a formal course is often associated with a passive learning role for the participant, as when and how to engage with peers is usually structured and prescribed. In addition, content is often predetermined with parameters around context (Dron &

Anderson, 2014). In contrast, a social media platform may provide for an environment that overcomes preconceived perceptions about learner role (Krutka, Carpenter, & Trust, 2017). Advantages of a social media platform for professional learning include that it supports learners in being producers of information rather than passive consumers, promotes the learning through the understanding of others' experiences, and embraces a desire to continue learning with a social community of peers (Sullivan, Neu, & Yang, 2018).

Building features into the social media environment that capitalize on the diverse engagement preferences and communication styles of the participants is one example of how the individual can be nurtured within the social media learning environment (Constantinides, 2012). Recent contributions to the literature offer other suggestions to address situational and design features that may inhibit participation. Kind and Evans (2015) recommend embedding features into the social media site that include opportunities for participants to respond, question, and contribute as well as be easily updated to provide interactive, time-sensitive information. Participants in social media for learning report enhanced self-improvement through purposeful design, such as building a platform embedded into the user's regular work routine (Donelan, 2016). Participants also appreciate being able to draw on shared beliefs and find this can create a sense of community. These shared beliefs, according to Belange, Bluvshtein, and Haugen (2015), can include an understanding of the importance of connectedness in all aspects of life, including learning that cannot easily be supported in other modes.

Methods

While the VPLC is becoming a more acceptable delivery mechanism for faculty professional development (Brooks, 2010; Lewis & Ewing, 2016: McAllister, Oprescu, & Jones, 2014; Trust, Carpenter, & Krutka, 2017), successful practices for designing these learning environments have received little attention in the research literature (Meyer & Murrell, 2014; Meyer, 2018). While it is clear that interaction and engagement are necessary for successful learning outcomes (Cartner & Hallas, 2017; Sullivan, Neu, & Yang, 2017; Thurlings & den Brok, 2017), it is not clear what design features best support it. Social media has been found to provide learning opportunities and may also prove to be a supportive learning environment for a VPLC (Moorley & Chinn, 2014; Sari-Motlah et al., 2016; Yee, 2015). While Trust, Carpenter, and Krutka (2017) suggest that social media platforms can serve as the center of interaction and an "affinity" space for learning (p. 2), little guidance has been provided in how to design the environment to meet learning and networking goals.

The purpose of this study was to provide insight into online faculty members' perceptions and experiences interacting in a VPLC, within a purposefully designed social media environment for the purposes of networking and learning. While other platforms, such as an online classroom, were considered to host a VPLC, it was disregarded because of its association with passive, formal learning that rarely fosters interaction, collaboration, and networking (Dron & Anderson, 2014). Given that the spirit of this study was to consider contemporary professional development learning strategies in which learning is conceived as a social endeavor (Atkins, Koroluk, & Stanach, 2017), and given the popularity of the medium (Smith & Anderson, 2018), a social media platform was considered the most suitable fit.

An interpretive or generic qualitative approach, as described by Thorne (2016), was used to examine the following research question: What are online faculty members' perceptions and

experiences interacting in a VPLC, within a purposefully designed social media environment for the purposes of learning and networking? An interpretive qualitative approach was identified as being most appropriate to explore this question, as the individual experiences were shaped within the context of a virtual environment, creating a situation in which data were evaluated through individual insight rather than the testing of a hypothesis (Caelli, Ray, & Mill, 2003).

The institution in which this study was conducted is a for-profit entity serving bachelor-, master-, and doctoral-level students. The faculty body consists of approximately 2,500 individuals with 90% being part-time. Faculty development is provided by a centralized department primarily through passive strategies, such as webinars, self-paced modules, and face-to-face lectures. A few opportunities for engagement through a VPLC have been offered through a variety of programs, but no institution-wide program existed. Therefore, the extent of the understanding and prior knowledge of the faculty and staff who participated in the VPLC was unknown.

The environment in which the participants interacted can be described as a social media platform, unfamiliar to participants, designed for collaboration and networking. The decision to use a lesser known product was to avoid value judgments associated with more commonly used social media platforms based on the prior experiences of participants. With similarities to Facebook, the platform's main feature was a center column "feed" that managed discussions, updates, and announcements. Other features of the social media platform used in this study included

- tools for virtual meetings with audio and video components,
- a shared calendar,
- a polling and survey feature,
- email and text capabilities, and
- a document-sharing file manager.

Drawing on Pesce's (2015) and Coswatte Mohr and Shelton's (2017) recommendations, the VPLC was purposefully designed to balance the faculty involvement in the learning process with an institutional presence to underscore its support. The VPLC was further designed to recognize the faculty members' multiple roles as instructor, researcher, and scholar by providing for five staff members who were recruited to serve as expert leaders. Each expert leader was asked to provide information and facilitate dialogue in a specified area of doctoral mentoring expertise over a two-week period. However, as suggested by Yee (2015), the expert leaders situated themselves as a colleague to avoid the implication that faculty members were novices. Topics were identified based on institutional need and included writing, library research, methodology, institutional review board issues, and effective communication with students.

The environment was designed so that the expert leader created a post, replied to a comment, shared a resource, or provided other evidence that they had been in the virtual environment each day. This allowed the participants to feel the presence of at least one other participant at any given time. A synchronous design feature was also incorporated, which provided opportunities for participants to interact through the virtual meeting space around content designed by the expert leader or participant contributions. After the two weeks designated to be focused on a topic concluded, another expert leader would commence facilitation on a different topic.

My role as the researcher within this study was that of both an insider and outsider, as described by Hellawell (2006). As a faculty development professional, I had insider knowledge about the issues, challenges, and resources available to the participants. As an outsider, I was not

employed in the same department or reporting authority as the participants. However, because of my leadership role with the institution, care was taken to maximize the outsider role by assigning other support individuals, faculty, and staff to interact with participants in the VPLC. This situated me as a nonparticipant, and I was not a visible player in the community. Furthermore, I engaged in purposeful reflexivity through self-reflection and critique (Dowling, 2006) to minimize the influence of my own experiences on the research process.

Upon institutional approval, email invitations were sent to a cohort of faculty from one program serving professional doctoral candidates. Purposive sampling, as described by Welman and Kruger (1999) was identified as the most appropriate strategy for this research undertaking. Consideration for the purpose of the research as well as researcher judgement guided the selection of the sample (Babbie, 1995; Schwandt, 1997). Ultimately, selection was based on the faculty member's role in in the online university as well as their willingness to participate in VPLC using a social media platform. In addition, all participants agreed to participate in a self-reflective interview with me at the end of the 10-week experience. Twenty-two doctoral mentoring faculty members agreed to participate in the VPLC as well as engage in follow up interviews. Upon completion of the 10-week experience, data was collected using an interview strategy to afford participants an opportunity for self-reflection and for the researchers to collect data that went beyond the surface of the phenomena (Kvale, 1996). The interview structure was based on recommendations by Jacob (2012) and included provisions for consent, recording, and focused interchange using a protocol (see Appendix A).

The interview protocol was developed based on the initial review of the literature as well as themes and issues that emerged during the project execution. Interview questions served to stimulate a conversation between the interviewer and the participant and were framed to elicit as much detail as possible (Carlson & McCaslin, 2003). Given that the participants were dispersed faculty for an online university, telephone interviews were conducted. Interviews were recorded and transcribed by a commercial conference call vendor. Of the 19 participants who were actively engaged at the conclusion of the project, 17 agreed to complete the interview. One interview transcript was unable to be retrieved; thus, 16 participant interview transcripts were available for analysis. Interviews lasted between 60 and 70 minutes.

Data analysis consisted of a cyclical technique, drawing on repetition and recurring processes. I embedded elements such as searching, comparing, verifying, confirming, and evaluating to further support the analysis (Shin, Kim, & Chung, 2009). To begin the process, initial coding was conducted through inductive analysis of the raw data (Patton, 2002). Once the initial coding was complete, I categorized the individual comments and concepts into units as described by Garrison, Cleveland-Innes, Koole, and Kappelan (2006). During this process, I was purposeful in my attempts to avoid collapsing codes into themes that demonstrated didactic perspectives. Rather, I allowed for purposeful consideration of divergent cases that, in the end, provided greater insight into the phenomena (Antin, Constantine, & Hunt, 2015).

Results

The research question examined in this study sought to provide insight into online faculty members' perceptions and experiences interacting in a VPLC, within a purposefully designed social media environment for the purposes of networking and learning. Analysis of the data resulted in the identification of four themes: *technology*, *contributions*, *relationships*, and *design*.

Technology

The first theme, *technology*, dealt with how the participants described their use of the social medial platform as well as how it enhanced or created challenges in their ability to form relationships and learn from their peers. Initially, the researcher and the participants experienced technological challenges with the social media environment that included participants not being able to log on, features not working as described, and confusion regarding navigation. Once these initial challenges were resolved, participants reported an ease of use that aided in their ability to participate. Specifically, they appreciated that the tools that they used (which was primarily the discussion feed) were prominent on the page and organized in a logical manner. In addition, as described by Sack-Min (2017), the participants cited the ability to personalize their page as helpful in the building of relationships. The participants felt that the inclusion of photos and other personal information enhanced their feelings of connection and cultivated bonding. One participant summarized this sentiment by saying,

> Another little piece with that, it actually gave me a picture, so it wasn't just this generic typing, texting, keyboarding- whatever you want to call it, it was actually a face that I could relate to so that hopefully down the line … I could recognize them should I ever be in a meeting and see them.

An initial challenge identified by participants was to remember to log on to the platform and participate, as the social media system was separate from those associated with day-to-day job responsibilities. While inconsistent with Donelan's (2016) recommendation, the lure of the interaction with peers and the email reminders appeared to be enough to ensure participation. One participant shared the following: "I looked forward to logging in and seeing what everyone was saying. I went to the social network, and although it wouldn't bring it up initially, if I hit it twice or three times it did." Another stated, "We got the message from [the researcher] and I logged on, put it on a favorite and that way I could just click on it and just go right in."

Contributions

Contributions was the second emergent theme within the data. The most significant of the data related to this theme revealed that participants felt that their learnings far exceeded their contributions. As one participant commented, "I don't think that I brought a lot to this particular table in terms of things that were going on. … But, I … certainly have gotten a lot of material and information." Another commented, "It wasn't as much as what I brought to the table … as what I gained from the table."

Specifically, participants indicated that they developed mentoring skills and increased confidence through affirmation of their feelings and experiences within the online classroom. One participant stated, "It reaffirms your confidence level in yourself and it makes you feel good that other people are experiencing the same frustrations you are." Another added,

> It's a problem, but I found out it was everyone's problem, which kind of made me feel better, because we pushed the candidates to do it, to do it, to do it, and after a while you start thinking, maybe it's me.

While the participants learned from their peers, the resources provided by leaders appeared to be a primary source of learning. One participant exemplified this sentiment by saying, "There are just so many resources and websites that, as a faculty member, you can't know everything. In

this setting, where we can all find out about these things and bring up issues, problems, concerns, it's advantageous to everyone."

Participants also cited improved mentoring skills and the ability to better support students as an outcome of their learning. This was reflected in a variety of ways. For example, one participant noted,

> Teaching classes and learning online is a challenge for everybody, but I'm open to that and open to ways of interacting with all students, regardless of what they bring to the learning environment. The discussions here gave me so many new things to think about and try.

Another participant gave specific examples of new skills learned, stating, "From a student perspective, I'm learning about phrasing, being accurate, listening." Another shared, "As a new mentor, I had no idea how to help a student proceed to the IRB. [The expert leader] gave me exactly what I needed." A third reported that

> I mentor them through the doctoral study and so her resources that she offered us, the Capstone, all of those that deal with APA and the templates for the doctoral study, and all the writing resources were definitely applicable to me and my needs.

Relationships

Not surprisingly, *relationships*, a key result of community building (McAllister, Oprescu, & Jones, 2014) prominently emerged. Relationship building among participants was described as resulting from increased confidence, confirmation of experiences, networking, and feelings of safety. Participants reported feelings of camaraderie with their colleagues in their efforts to identify best practices related to mentoring their students. Participants described this as manifesting in the form of encouragement, sharing of diverse perspectives, and an interest in continuing the community after the end of the project period. In addition to forming new relationships with their peers, several participants described building relationships with the expert leaders, expressing that they would likely reach out to these individuals later if the need arises. One participant commented,

> I felt very comfortable asking or responding to my peers and in doing so they responded positively back to me. Even when we may not have agreed on a particular subject, it was a give and take, you know, like a comradery.

This, however, was not true of all participants. While participants felt like part of a community, relationships did not necessarily always form, as articulated by one participant:

> I think what it did was that now I recognize some more names. I see them again. For example, there was one woman who I was a second committee member with her so now oh I know who that is and other names that I now see. It's really just if in other circumstances these names came up, I could say oh I remember chatting with that person in the study. … In terms of getting to know them better or being more connected I don't think it did that. But, I also don't think maybe it was designed to do that. From my side it didn't do that. I don't have any new BFFs or whatever, but I don't think it was that kind of a [community].

Design

Design as a theme was an important outcome of the research, as many of the aspects of the VPLC were designed to ensure structure and broad participant engagement. This was important to the project, as current research has been limited to the examination of informal environments (e.g.,

Brock et al., 2014; Donelan, 2016; Robson, 2016; Sari-Motlah et al., 2016). The 10-week time frame for participation in the VPLC was incorporated to allow for a time-limited approach during which participants could reflect on and work toward their goals. Similarly, the use of the expert leaders to facilitate discussion was to ensure continued opportunities for interaction within the environment regardless of individual participant engagement, as described by Lorenzo-Romero, Alacrcon-del-Amo, and Constantinides (2012). Finally, discussion topics were designed with both the needs of the university and the faculty responsibilities of the participants in mind (Coswatte Mohr & Shelton, 2017).

Ultimately, these three design features proved to be a valuable part of the experience for the participants. In general, the structured nature of the community allowed participants to be self-directed in their learning but still be part of the group. For example, one participant described her involvement in this way:

> I was glad for the division of the ten weeks by topic. There were some topics that I was just more interested in than others. That gave me the opportunity to contribute and participate as much as I felt I needed to…. I didn't have to worry about "doing my part" as I knew the … [leader] was there to communicate with the others.

Another participant responded, "Because the … [leader] was there, we were always on task and we didn't go off task, but yet there was a lot of extracurricular discussions that just enhanced the entire experience."

Other participants felt more available to participate, as they knew their commitment would only last 10 weeks. One commented, "Ten weeks was a good amount of time for me to get the information I needed to improve my mentoring. … After that, I felt I would have the opportunity to move on without further expectations to engage in this way."

Discussion

While coded and categorized separately, as the themes emerged, it became clear that all four were intertwined, as comments from participants transcended individual ideas. As the analysis progressed into interpretation, my ability to separate issues of technology from those of relationships or contribution became increasingly difficult. For example, the participants described their experiences of building community as related to their learning, but also dependent upon their experiences with the technology and their satisfaction with the design. In essence, the data revealed that these phenomena worked in harmony to create a positive experience for the participants that resulted in a sense of both learning and networking.

This study was limited in scope because of the small number of faculty participants from a single program of study at an online, for-profit institution. The similarity in professional experiences may have impacted the perceptions of participants as well as influenced how they interacted. Another limitation was that the participants were volunteers for the professional development activity. According to Chen, Lowenthal, Bauer, Heaps, and Nielsen (2017), participants view professional development with higher satisfaction when it is not required. Finally, while efforts were made to situate the expert leaders and researcher as colleagues, participants may have felt compelled to overstate their satisfaction to appease organizational expectations.

Despite these limitations, this study confirmed previous research into the benefits of the PLC for professional development in academia (Krutka, Carpenter, & Trust, 2017; Mintzes, Marcu, Messerchmidt-Yates, & Mark, 2013; Valle & Fuchs, 2015) and of using social media for professional learning (Dron & Anderson, 2014; Moorley & Chinn, 2014; Sari-Motlah et al., 2016; Yee, 2015). It extended the research to describe the structured, VPLC using a social media platform as a potentially effective way to engage faculty, build relationships, and foster shared learning. Finally, this study also expanded the understanding of using a VPLC for learning and networking through insight into design features that provided for a time-limited, facilitated approach that focused on narrow topics of mutual interest to participants.

As described by Wegner, McDermott, and Snyder (2002), interaction and engagement among participants emerged as an important aspect of the community. This interaction and engagement led to the development of relationships that transcended participant roles (Coswatte Mohr, & Shelton, 2017; Dron & Anderson, 2014; McAllister, Oprescu, & Jones, 2014). Relationships among participants were supported by trusting, collegial conversations, which allowed for the building of skills and practices through the sharing of instructional strategies (McConnell et al., 2012; Sullivan, Neu, & Yang, 2018). Subsequent reported actions on the part of individual participants included the incorporation of those strategies into the classroom experience for students.

The use of a social media platform helped form the learning community among this group of remote faculty. Fostering a sense of community among a small number of faculty had demonstrable effects, as faculty had an opportunity to establish relationships with their peers and better understand what they "bring to the table" in terms of mentoring skills and abilities, as described by Charnigo and Barnett-Ellis (2007), Dron and Anderson (2014), and Murphy and Simonds (2007). In addition, purposeful, flexible opportunities to engage in learning within the social media environment led to similar outcomes as in traditional PLCs (Blitz, 2013; Mintzes et al., 2013; Sack-Min, 2017). These outcomes include skills needed to be successful in an academic environment, such as building a sense of confidence, being able to collaborate, demonstrating accountability, and increasing proficiency with technology (Brock et al., 2014; Cândida Müller & Lucchesi de Carvalho, 2014; Valle & Fuchs, 2015).

Conclusion

Professional development in higher education continues to be viewed as an important component of faculty support (Kane et al., 2016; Thurlings & den Brok, 2017). Faculty developers work to create opportunities for faculty to engage in learning situated in a social constructivist paradigm (Cartner & Hallas, 2017) with the goal of supporting participants as producers of knowledge based on their own experience and that of their peers (Sullivan, Neu, & Yang, 2018). The PLC and the VPLC for dispersed faculty have been found useful to address contemporary faculty learning needs (Cândida Müller & Lucchesi de Carvalho, 2014; Sullivan, Neu, & Yang, 2018; Valle & Fuchs, 2015; Wegner, McDermott, & Snyder, 2002).

Social media can be a tool to support the environment in which a VPLC exists. In this case, the use of the structured social media platform proved to be a supportive learning environment for a VPLC in that it resulted in the development of professional networks as well as interpersonal skills, such as collaboration and self-improvement (Brock et al., 2014; Donelan, 2016). The features of the social media platform, particularly the discussion feed and the ability to personalize

the environment, as described by Sack-Min (2017), created an atmosphere that encouraged contributions from all participants. However, data analysis did not provide clear insight into nuances of relationship building, such as whether the participants held shared beliefs relating to the importance of connectedness, as described by Belange, Bluvshtein, and Haugen (2015). Further research into the value and significance of establishing connections within the PLC as it relates to academic learning could provide insight into this phenomenon.

This study was conducted under the premise that the use of media itself does not facilitate learning (Cartner & Hallas, 2017). Rather, the social media platform served as a way to cultivate learning through the understanding of others' experiences within a social community of peers (Sullivan, Neu, & Yang, 2018). It also incorporated institutional strategies that support professional development activities for online faculty, including clarification of institutional expectations and staff support (Coswatte Mohr & Shelton 2017). Findings filled an important gap in the literature described by Meyer (2018) in that they provided design specifications for a VPLC that can be replicated in other settings. These design considerations include provisions for facilitation, a time-limited commitment, and focused content. However, it is only a single example of how a social media environment can be designed as an effective tool to facilitate the PLC in academia. Further qualitative research within other disciplines and for other purposes is needed to provide insight into its potential effectiveness with populations from differing educational levels and diverse disciplines. In addition, quantitative research may provide insight into the relationships between outcomes, such as learning transfer, sense of community, and engagement.

References

Antin, T., Constantine, N., & Hunt, G. (2015). Conflicting discourses in qualitative research: The search for divergent data within cases. *Field Methods, 27*(3), 211–222.

Atkins, B., Koroluk, J., & Stranach, M. (2017). Canadian teaching and learning centres on Facebook and Twitter: An exploration through social media. *TechTrends: Linking Research & Practice to Improve Learning, 61*(3), 253–262. doi:10.1007/s11528-016-0144-2

Babbie, E. (1995). *The practice of social research* (7th ed.). Belmont, CA: Wadsworth.

Bedford, L., & Rossow, K. (2017). Facilitating professional learning communities among higher education faculty: The Walden Junto model. *Online Journal of Distance Learning Administration, 20*(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer202/bedford_rossow202.html

Belange, S., Bluvshtein, M., & Haugen, D. (2015). Cybersocial connectedness: A survey of perceived benefits and disadvantages of social media use. *The Journal of Individual Psychology, 71*(2). Retrieved from https://utpress.utexas.edu/journals/journal-of-individual-psychology

Blitz, C. (2013). *Can online learning communities achieve the goals of traditional learning communities? What the literature says.* National Center for Education Evaluation and Regional Assistance: Institute of Education Sciences. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/midatlantic/pdf/REL_2013013.pdf

Brock, T., Asseemi, M., Corelli, R., El-Ibiary, S., Kavookijian, J., Martin, B., & Hudmon, K. (2014). A nontraditional faculty development initiative using a social media platform. *American Journal of Pharmaceutical Education, 78*(5). Retrieved from http://www.ajpe.org/doi/pdf/10.5688/ajpe785105

Brooks, C. F. (2010). Toward 'hybridised' faculty development for the twenty-first century: Blending online PLC and face-to-face meetings in instructional and professional support programmes. *Innovations in Education & Teaching International*, *47*(3), 261–270. doi:10.1080/14703297.2010.498177

Caelli, K., Ray, L., & Mill, J. (2003). Clear as mud: Towards a greater clarity in generic qualitative research. *International Journal of Qualitative Methods, 2*(2), 1–23. doi:10.1177/160940690300200201

Cândida Müller, M. C., & Lucchesi de Carvalho, D. (2014). Learning communities for teacher research: Experiences of the GdS and GETEMAT. *Journal of Education and Human Development, 3*(1). doi:10.15640/jehd

Carlson, M., & McCaslin, N. (2003). Meta-inquiry: An approach to interview success. *The Qualitative Report, 8*(4), 549–569. Retrieved from http://www.nova.edu/ssss/QR/QR8-4/carlson.pdf

Cartner, H. C., & Hallas, J. L. (2017). Challenging teachers' pedagogic practice and Assumptions about social media. *Online Learning, 21*(2). doi:10.24059/olj.v21i2.1009

Charnigo, L., & Barnett-Ellis, P. (2007). Checking out Facebook.com: The impact of a digital trend on academic libraries. *Information Technology and Libraries, 26*(1), 23–34. Retrieved from http://www.acrl.org/ala/lita/litapublications/ital/262007/2601mar/charnigo.pdf

Chen, K., Lowenthal, P., Bauer, C., Heaps, A., & Nielsen, C. (2017). Moving beyond smile sheets: A case study on the evaluation and iterative improvement of an online faculty development program. *Online Learning, 21*(1). doi:10.24059/olj.v21i1.810

Coswatte Mohr, S., & Shelton, K. (2017). Best practices framework for online faculty professional development: A delphi study. *Online Learning, 21*(4). doi:10.24059/olj.v21i4.1273

Cox, E. (2012). Individual and organizational trust in a reciprocal peer coaching context. *Mentoring & Tutoring: Partnership in Learning, 20*(3), 427–443. doi:10.1080/13611267.2012.70196

Donelan, H. (2016). Social media for professional development and networking opportunities in academia, *Journal of Further and Higher Education, 40*(5), 706–729. doi:10.1080/0309877X.2015.1014321

Dowling, M. (2006). Approaches to reflexivity in qualitative research. *Nurse Researcher, 3*(13), 7–21.

Dron, J., & Anderson, T. (2014). *Teaching crowds and social media*. Edmonton, AB: AU Press Athabasca University. Retrieved from http://klangable.com/uploads/books/99Z_Dron_Anderson-Teaching_Crowds.pdf

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6–11. Retrieved from http://www.ascd.org/publications/educational-leadership/may04/vol61/num08/What-Is-a-Professional-Learning-Community%C2%A2.aspx

Ford, L., Branch, G., & Moore, G. (2008). Formation of a virtual professional learning community in a combined local and distance doctoral cohort. *Association for the Advancement of Computing in Education, 16*(2), 161–185. Retrieved from www.learntechlib.org/d/24249

Garrison, D., Cleveland-Innes, M., Koole, M., & Kappelman, J. (2006). Revisiting methodological issues in transcript analysis: Negotiated coding and reliability. *The Internet and Higher Education, 9*, 1–8. Retrieved from https://core.ac.uk/download/pdf/58774779.pdf

Hellawell, J. (2006). Inside-out: Analysis of the insider-outsider concept as a heuristic device to develop reflexivity in students doing qualitative research. *Teaching in Higher Education, 11*(4), 483–494.

Herman, J. (2012). Faculty development programs: The frequency and variety of professional development programs available to online instructors. *Journal of Asynchronous Learning Networks, 16*(5), 87–106. Retrieved from http://files.eric.ed.gov/fulltext/EJ1000093.pdf

Hodes, T., & Cady, J. (2013). Blended-format professional development and the emergence of communities of practice. *Math Education Research, 25,* 299–316. doi:10.1007/s13394-012-0065-0

Holmes, K. A., & Prieto-Rodriquz, E. (2018). Student and staff perceptions of a learning management system for blended learning in teacher education. *Australian Journal of Teacher Education, 43*(3).

Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report*, *17*(42), 1–10. Retrieved from http://nsuworks.nova.edu/tqr/vol17/iss42/3

Kane, R., Shaw, M., Pang, S., Salley, W., & Snider, J. B. (2016). Faculty professional development and student satisfaction in online higher education. *Online Journal of Distance Learning Administration, 19*(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer192/kane_shaw_pang_salley_snider192.html

Kind, T., & Evans, Y. (2015). Social media for lifelong learning. *International Review of Psychiatry, 27*(2), 214–132. doi:10.3109/09540261

Krutka, D., Carpenter, J., & Trust, T. (2017). Enriching professional learning networks: A framework for identification, reflection, and intention. *Techtrends: Linking Research & Practice to Improve Learning, 61*(3), 246–252. doi:10.1007/s11528-016-0141-5

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing.* Thousand Oaks, CA: Sage Publications.

Lewis, S., & Ewing, C. (2016). Assuring student learning outcomes achievement though faculty development: An online university example. *Online Journal of Distance Learning Administration, 16*(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter194/lewis_ewing194.html

Lorenzo-Romero, C., Alacrcon-del-Amo, M., & Constantinides, E. (2012). Segmentation of users of social networking websites. *Social Behavior and Personality, 40*(3). Retrieved from https://www.sbp-journal.com/index.php/sbp/article/view/2501

Matzat, U. (2013). Do blended virtual learning communities enhance teachers' professional development more than purely virtual ones? A large-scale empirical comparison. *Computers and Education, 60*, 40–51. Retrieved from http://www.elsevier.com/locate/compedu

McAllister, M., Oprescu, F., & Jones, C. (2014). N2E: Envisioning a process to support transition from nurse to educator. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, *46*(2), 242–250. doi:10.5172/conu.2014.46.2.242

McConnell, T., Parker, J., Eberhardt, J., Koehler, M., & Lundeberg, M. (2012). Virtual professional learning communities: Teachers' perceptions of virtual versus face-to-face professional development. *Journal of Science and Technology.* doi:10.1007/s10956-012-9391-y

McKee, C., & Tew, W. (2013). Setting the stage for teaching and learning in American higher education: Making the case for faculty development. *New Directions for Teaching & Learning* (133), 3–14. doi:10.1002/tl.20041

Meyer, K. A. (2018). An analysis of the research on faculty development for online teaching and identification of new directions. *Online Learning, 17*(4). doi:10.24059/olj.v17i4.320

Meyer, K., & Murrell, V. (2014). A national survey of faculty development evaluation outcome measures and procedures. *Online Learning, 18*(3). doi:10.24059/olj.v18i3.45

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Mintzes, J. J., Marcum, B., Messerschmidt-Yates, C., & Mark, A. (2013). Enhancing self-efficacy in elementary science teaching with professional learning communities. *Journal of Science Teacher Education, 24*. doi:10.1007/s10972-012-9320-1

Moorley, C., & Chinn, T. (2014). Using social media for continuous professional development. *Journal of Advanced Nursing, 71*(4), 713–717.

Patton, M. (2003). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Peruta, A., & Shields, A. B. (2017). Social media in higher education: Understanding how colleges and universities use Facebook. *Journal of Marketing for Higher Education, 27*(1), 131–143. doi:10.1080/08841241.2016.1212451

Pesce, R. (2015). *Professional development for teaching in higher education: Faculty perceptions and attitudes* (Doctoral dissertation). Retrieved from https://dlib.bc.edu/islandora/object/bc-ir:104134

Robson, J. (2016). Engagement in structured social space: An investigation of teachers' online peer-to-peer interaction. *Learning, Media and Technology, 41*(1), 119–139. doi:10.1080/17439884.2015.1102743

Sack-Min, J. (2017). Social media helps educators build professional learning communities. *Education Digest, 82*(6), 25–29.

Sari-Motlah, R., Ebrahimi, S., Nikfallah, A., & Hajebrahimi, S. B. (2016). Lifelong learning in practice: The age of discussion through social media. *European Urology, 69,* 1161–1163. doi:10.1016/j.eururo.2016.01.025

Saroyan, A., & Trigwell, K. (2015). Higher education teachers' professional learning: Process and outcome. *Studies in Educational Evaluation, 46*, 92–101. doi:10.1016/j.stueduc.2015.03.008

Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. Thousand Oaks, CA: Sage.

Shin, R. K., Kim, M. Y., & Chung, S. E. (2009). Methods and strategies utilized in published qualitative research. *Qualitative Health Research, 19*(6), 850–858. doi:10.1177/1049732309335857

Smith, A., & Anderson, M. (2018). *Social media use in 2018: A majority of Americans use Facebook and YouTube, but young adults are especially heavy users of Snapchat and Instagram.* Pew Research Center. Retrieved from http://assets.pewresearch.org/wp-content/uploads/sites/14/2018/03/01105133/PI_2018.03.01_Social-Media_FINAL.pdf

Steinert, Y. (2010). Faculty development: From workshops to PLC. *Medical Teacher*, *32*(5), 425–428. doi:10.3109/01421591003677897

Sullivan, R., Neu, V., & Yang, F. (2018). Faculty development to promote effective instructional technology integration: A qualitative examination of reflections in an online community. *Online Learning, 22*(4). doi:10.24059/olj.v22i4.1373

Thorne, S. (2016). *Interpretive description: Qualitative research for applied practice* (Vol. 2). Routledge.

Thurlings, M., & den Brok, P. (2017). Learning outcomes of teacher professional development activities: A meta-study. *Educational Review, 69*(5), 554–576. doi:10.1080/00131911.2017.1281226

Trust, T., Carpenter, J. P., & Krutka, D. G. (2017). Moving beyond silos: Professional learning networks in higher education. *Internet & Higher Education, 35*, 1–11. doi:10.1016/j.iheduc.2017.06.001

Urquhart, R., Cornelissen, E., Lal, S., Colquhoun, H., Klein, G., Richmond, S., & Witteman, H. O. (2013). A community of practice for knowledge translation trainees: An innovative approach for learning and collaboration. *Journal of Continuing Education in The Health Professions*, *33*(4), 274–281. doi:10.1002/chp.21190

Valle, M., & Fuchs, T. (2015). Teaching and learning communities: Empowering adjuncts and ensuring quality. *Journal of Education and Human Development, 4*(1). Retrieved from http://jehdnet.com/vol-4-no-1-march-2015-abstract-1-jehd

Van Waes, S., De Maeyer, S., Moolenaar, N., Van Petegem, P., & Van den Bossche, P. (2018). Strengthening networks: A social network intervention among higher education teachers. *Learning and Instruction, 53*, 34–49. doi:10.1016/j.learninstruc.2017.07.005

Veletsianos, G. (2017). Three cases of hashtags used as learning and professional development environments. *Techtrends: Linking Research & Practice to Improve Learning, 61*(3), 284–292. doi:10.1007/s11528-016-0143-3

Welman, J. C., & Kruger, S. J. (1999). *Research methodology for the business and administrative sciences.* Johannesburg, South Africa: International Thompson.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating PLC: A guide to managing knowledge.* Boston, MA: Harvard Business School Press.

Yee, K. (2015). Constructivism reconsidered in the age of social media. *New Directions for Teaching and Learning, 144*. doi:10.1002/tl.20166

Zhang, X., & Wong, J. (2018) How do teachers learn together? A study of school-based teacher learning in China from the perspective of organisational learning. *Teachers and Teaching, 24*(2), 119–134. doi:10.1080/13540602.2017.1388227

Appendix A
Interview Protocol

1. What influenced your decision to join this group?
2. What did you hope to gain from your participation in this community?
3. What do you feel you "brought to the table" in terms of sharing skills and resources with the group?
4. In what ways do you feel your participation in the community affect mentoring students at this University?
5. In what ways did the technology make a difference in your ability to participate in the community?
6. How did the learning community structure influence your participation?
7. What features of the learning community did you find most useful and/or that you used the most?
8. What was your experience with the social media interfaces in building community with your peers?
9. Describe how your relationships with the individuals in the community evolved over the project period?
10. What do you anticipate your relationships to be with your peers after the community closes?