FEATURE ARTICLE

Towards a Model for Cultivating Online Learning Communities

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ABSTRACT

With the growing number of online students, universities must provide support for students in developmental education to engage, collaborate, and co-construct their learning in socially dynamic ways. Online learning communities provide spaces for students to identify with others, communicate openly and candidly, and develop professional relationships. With social constructivism utilized as a frame to guide this formative experiment, researchers examined social interactions and engagement among students of a PhD cohort across online platforms and apps. Through collective responsibility and the consideration of multiple entry points, the B.E.S.T. (backchannels; engagement; social media; tutoring) framework was established by the researchers and continues to evolve according to students' needs. Discussion includes highlights and future opportunities to extend and enrich online communities of practice to benefit developmental education programs.

Online learning is becoming increasingly popular, with more than 350,000 new students enrolled in U.S.-based online programs in higher education during the 2016-2017 academic year (Lederman, 2018). As the number of online learners continues to grow, so too must the level of attention paid towards re-envisioning multimodal learning and improving upon how institutions provide multiple academic and professional support systems. More specifically, research is needed to understand "when and how online students become fully engaged in their academic pursuits" (Gordon, 2011, p. 72). These notions are underscored when considering online learners are as, if not more, diverse than their face-to-face counterparts (Chen et al., 2018).

An analysis of the demographics of online learners within higher education in the United States reveals 81% are non-traditional students with an average age of 34 years old, and 84% work full-time (Education Today, 2019). Incorporating strategies to foster and maintain high levels of engagement in online learning communities is central to optimizing student interaction in a program. Online collaborative spaces can lead to higher levels of student satisfaction (Rios et al., 2018) as well as improved academic self-efficacy (Yilmaz, 2016) and ultimately career success (Kent, 2018) as increasing communication channels, discourse and dialogue, and collective responsibility facilitates authentic teaching and learning experiences.

Online management systems like Blackboard, Canvas, Moodle, and Brightspace/D2L have a bevy of features to promote online learning outcomes, but universities must consider other social channels if they are to develop and maintain vibrant learning communities, especially important within developmental education (Hou, 2015; Visher et al., 2012). Schools and universities need to adopt "forward-thinking strategies to effectively engage and leverage online [learners], drawing from communication preferences and other data gathered while students [are] enrolled" (Clinefelter et al., 2019, p. 47).

Investigators of this study sought to enhance their own online learning community (Ph.D. in Literacy program at St. John's University) through a formative experiment examining their practices related to building community that continue to evolve today. What follows is an examination of its theoretical orientation and the methods of data collection and analysis that guide this study.

Grounding our Work

The examples we present here are situated in social constructivism (Gee, 2009) whereby students' sustained and meaningful social interactions and engagements influence not only thinking and learning but also the creation of new meanings (Bonk & Cunningham, 1998; Gresalfi et al., 2009). The process of meaning-making is negotiated through

fluid dialogue and rich conversation (Jonassen et al., 1999). As a result, learning opportunities can occur "by adding, distinguishing, re-contextualizing, or otherwise re-conceptualizing beliefs, knowledge, processes, or practices" (Stewart & Jordan, 2017, p. 139). Transformative dialogue, therefore, allows for a co-construction of knowledge through a coming-together of varying experience levels around common interests and goals.

A social constructivist framework is befitting of informal environments, as it posits that learning occurs through interactions with both people and common artifacts (Jonassen & Land, 2012; Stewart & Jordan, 2017), like those found in the courses of a Ph.D. program. Peers can come together frequently to discuss projects, readings, and outside engagements to facilitate meaningful discussions in informal contexts. Thus, with emphasis on sustained engagement and peer-to-peer dialogue, we assert that the iterative nature of online learning communities allows for social learning and knowledge creation as students interact informally.

Methods of Investigation

This formative experiment (Reinking & Bradley, 2007) sought to understand the implementation and evolution of an online learning community. We chose this design for (a) its recognition of the dynamic factors and variables related to teaching and learning environments; (b) its allowance of faculty researchers and participatory Ph.D. students to engage in collaborative reflection and change agentry within the online learning community; and (c) its focus on flexible and iterative processes that permit wide engagement to be studied across multiple digital spaces (see Howell et al., 2020).

Data came from the following sources: WhatsApp group text messages, Blackboard-based and offline conversations between program stakeholders, social media posts on a closed Facebook (FB) page (St. John's University Ph.D. in Literacy [SJUPHD]), and tutoring sessions observed by the director of the program. In the following sections, we examine the constructs of effective learning communities in general, followed by a framework resulting from our formative experiment that we use today to cultivate a learning community in the online space as part of our Ph.D. in Literacy program. Our ongoing successes and challenges continue to lead towards more sophisticated and increasingly effective ways to engage as an online community of scholars.

Fostering Effective Learning Communities

Learning communities have been discussed and studied since the 1920s (Zhao & Kuh, 2004). Many studies have found that learning communities, particularly those that encourage out-of-class connections, can increase student engagement, learning, and personal development as well as demonstrate educational effectiveness (Kuh, 1996, 2003; MacGregor, 1991). Furthermore, learning communities can promote diversity and social tolerance in addition to fostering personal and community development within the group (Johnson & Johnson, 1994; Slavin, 1983). Additionally, learning communities are typically structured to encourage two types of connections: to connect ideas across multiple disciplines and courses (Klein, 2000; MacGregor, 1991), and to build community through long-term social interactions. Because of these connections within the learning community, students can "further develop their identity and discover their voice as well as to integrate what they are learning into their worldview and other academic and social experiences" (Zhao & Kuh, 2004, p.117). Importantly, these connections must be implicitly or explicitly negotiated and fostered in online learning communities where all members are free to express themselves. By presenting oneself authentically to the group, the community is able to establish further connections with students taking on emergent roles: facilitators, readers, conversation starters, etc. (Kim, 2000; McMillan, 1996; Palloff & Pratt, 1999). Through collective responsibility and multiple entry points, authentic online learning communities can enhance the overall academic experience and meet the diverse needs of students today.

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Collective Responsibility

Rather than rely on preset learning management systems, online learning communities--such as the one used in the SJUPHD that extends into social media and text-based platforms--continually co-construct individual and group roles and responsibilities, working together on common goals and purposes. Only one-third of these SJUPHD students live the in tri-state region (New York, New Jersey, and Connecticut), validating the necessity to create a collective social presence through online and digital means of interaction. Moreover, many of these students are non-traditional, live in countries outside the U.S., work full time, and have families. These professionals balance those responsibilities with the high demands of the program, achieved in part through collective responsibility.

Zembylas' (2008) study found that students prefer flexible, asynchronous programs that permit online learners to complete their assignments within their own timeframe; furthermore, they find joy and become increasingly enthusiastic from making connections with their like-minded peers in the program. Annalisa Perfetto, a recent graduate of the SJUPHD program, said:

> St. John's University gave me the flexibility of a fully online program in literacy at a trusted and well respected institution. I craved the flexibility of being able to study from wherever, and I trusted the university as well as many of my peers in class to support me along the way.

Distance learning brings with it unknowns, too (Hartnett et al., 2018), and with those unknowns come emotions and even anxieties. For example, it may be stressful for students who have a question but cannot always ask questions the same way students would in a traditional face-to-face classroom. Students may be fearful of the online learning management system and statistical software, and are fearful to learn new ways to access library resources and citation systems as well as to create videos (Preston, 2018). The learning curve involved in succeeding in an online program of study can be daunting. Thankfully, the trepidations and nervousness are accompanied by equal amounts of excitement, enthusiasm, and interest in the program as well as participation in their socially constructed online learning community.

Helping students overcome the sense of "alienation" and "the need for connectedness" that they often feel initially in an online course is of prime concern for those designing online curriculum (Zembylas, 2008, p. 80). These concerns are quickly resolved once students begin their coursework and chart their own pathway to success. For example, two students in the program commented that they "share a group chat relationship through Whatsapp since last semester (Fall 2019) ... and were very comfortable reaching out to one another to communicate digitally through video phone chats" (C. Biskup, personal communication, March 2, 2019). Their collaborations are offshoots from online learning communities that are socially constructed, permitting students to share ideas and perspectives, which enhances their understanding of program expectations and also their understanding of content knowledge. Instead of facing these challenges individually, engaging with peers towards a shared goal sparks a sense of collective responsibility within the learning community (Ortlieb et al., 2010).

Multiple Entry Points

Since it is difficult to engage all learners with a single method or strategy, programs must offer multiple entry points to enter into study. The individualistic and communalistic nature of student learners and learning preferences requires a multi-pronged design inclusive of learner-centered pathways. This varied approach stimulates student interest to access and utilize resources across multiple pathways (Flynn et al., 2015). Students become intrigued by content, interactions, and previous learnings when deciding upon what information to connect (Ryan & Deci, 2000). This reaction impacts the larger online learning community in an ebb and flow fashion as participants interact and engage in multimodal exchanges, sharing their emerging expertise and informed perspectives. Such interactions demonstrate the reciprocal nature of dialogue (Siemens, 2005) in the context of an online classroom in which students work through difficult content and concepts in an effort to construct knowledge while maintaining respect for diverse opinions within the community (Covey, 1989).

Within the parameters of an interactive social space, participants can engage with peers, mentors, and instructors with the ability to produce or consume words, videos, and multimedia content for the purpose of entertaining, educating, informing, and persuading. The diverse media objects across social media platforms are just one tap away from "share," causing other members to react, piquing their curiosity and leading others towards new learning opportunities. In that moment, the participant reads a newsfeed entry that either affirms previous understandings or becomes disrupted (Ortlieb, 2014). A process ignites to puzzle or make meaning of the perturbation (Jonassen, 2002), or it is supported--and with new ideas to construct knowledge. These individual and collective learnings occur in part due to the optional entry points framed through its networked design.

A Framework for Online Learning Communities

We designed the B.E.S.T. Framework based on evidence-based practices to build an online community of learners at St. John's University using backchannels, engagement, social media, and tutoring (B.E.S.T). Some of these components were partially preconceived while others evolved through this formative experiment; data collected to support these practices is provided within each section using an integrative approach to providing and situating results. The common thread through the core principles in the framework is their function—improved social interaction and engagement towards building an online community of learners.

Backchannels

The development of social presence, or the perceived interaction with others, is a cornerstone of online learning communities (Rourke et al., 2001). Interaction needs to go beyond a linear back-and-forth with content and instructors. Rather, students need to communicate with each other in order to cultivate an authentic and active learning community (Moore, 1989).

For online-learning programs, digital backchannels can be one such method for creating

student communities. Backchannel content is "a line of communication created by people in an audience to connect with others outside or inside the room, with or without the knowledge of the speaker at the front of the room" (Atkison, 2010, p. 17). In the past, backchannel content in classrooms included whispering or passing notes, which many teachers tried to stop (Carpenter, 2015). By contrast, teachers may choose to embrace backchannels as tools to leverage rather than eliminate instructional classroom communication (Chisholm, 2018). Digital backchannels help students share their impressions and engage in collaboration activities (Pohl et al., 2011). Online platforms can also aid professionals to engage with a wide variety of people (including peers, professors, and outside professionals).

The Fall 2018 cohort enrolled in SJUPHD created a backchannel discussion via the mobile app WhatsApp. With over 1.5 billion users in 180 countries, WhatsApp is the most popular messaging app in the world (Iqbal, 2019). Within this app, messages can be sent to individuals and to groups. WhatsApp was an ideal method for a cohort to communicate with each other away from teacher supervision due to its low cost, the immediacy of holding real-time conversations, having a sense of group belonging, and maintaining confidentiality (Church & de Oliveria, 2013).

The cohort's use of WhatsApp aligns with previous research that finds such backchannel methods facilitate class communication, collaboration, content sharing, and homework support (Mese & Aydin, 2019). For the Ph.D. in Literacy cohort, WhatsApp served as a backchannel and not simply another platform for communication, as it permitted students to collaborate, communicate, and gossip with one another outside the confines of an academic environment. While the cohort started small with approximately 10 students, eleven more students joined the group throughout the year resulting in (22/31) 71% total cohort participation. The group has become a close-knit community, sharing information on personal and family-member goals, struggles, inside jokes, and celebrations, too. In addition to our main group, we connected and built networks within a network, forming off-shoots or sub-groups for each course.

Based on this and other evidence, we argue that backchannel communication via WhatsApp positively impacted the performance of the cohort. For example, in a challenging statistics course, students shared learning notes, questions, and ideas to the group via WhatsApp. Due to the level of engagement and peer-to-peer supportilizing this app, the cohort recently received glowing feedback from the instructor on having a more sophisticated level of statistical knowledge and application than previous cohorts. Members (including authors Jennifer and Dona) believe the WhatsApp group communication played a large role in their growth, development, and eventual success.

Engagement Within/Beyond Learning Portals

Recent research from MIT and Harvard University indicated that while online students are diverse in background and purpose, educators were one of the most active groups of participants and had the strongest identity in their Massive Open Online Course (MOOC) offerings from 2012-2016 (Chuang & Ho, 2016). While MOOCs differ from our examples in that they are much larger and more self-directed, we see a parallel in the active and proactive nature of the educator learners. Furthermore, this information solidifies the understanding that many teachers want to continue their education both in informal and formal online educational contexts like the one we examine here.

Many argue that the role of the instructor is to structure learning, participation, and community building within a course (Palloff & Pratt, 1999). Within the SJUPHD program, faculty and staff provide multiple supports aimed at personal engagement (e.g., engaging Blackboard set up, frequent emails/ phone calls, surveys, virtual meetings, video assignments, listservs, on-campus events, etc.) as well as a data-driven understanding of student engagement (e.g., statistics tracking). These supports are designed to ensure that students are engaged within the courses and less likely to withdraw from the course or program, as is common in other types of online learning such as MOOCs (Chuang & Ho, 2016). Some considerations of engagement start long before students begin their study (e.g., course design) while others are continued throughout a student's course or program (e.g., statistics tracking, virtual meetings, frequent communication).

Furthermore, Brook and Oliver (2003) argue that instructors can create activities and structures to help foster students' interest to participate within online communities. Many of the personal and communal engagement strategies such as virtual meetings, video assignments and on-campus events (for those near campus) can help to make students feel more comfortable or humanized within their courses (Huerta, 2011). This comfort may lead to increased engagement and participation within the online learning communities (Zhao & Khu, 2004).

Social Media

Research shows conflicting results on Facebook's validity for pedagogical purposes (Stewart, 2015). In studies that have attempted to use FB as an integral part of content delivery, the results have been primarily negative as they have not resulted in better engagement or learning overall (Qi, 2019). As a result, SJUPHD has not utilized FB as an integral part of any class. Instead, the Program Director created and jointly leads the SJUPHD FB group, which serves a peripheral role for all students in the program. As supplemental class instruction, FB can effectively

provide acillary information to assist student learning (Abe & Jordan, 2013; Leaver, 2014). For example, professors share interesting research studies or events related to class. However, the content is not required as part of any class instruction.

Serving social and educational purposes (such as academic content sharing), the use of FB by academics has been shown to support overall student well-being resulting in increased academic performance (Henry, 2012). Therefore, the primary purpose of the SJUPHD FB group is to build community through engagment in authentic interactions between students, collaboration in intellectual conversations, and support for peers both personally and professionally (Di Capua, 2012; Niu, 2019). Finally, SJUPHD finds FB an effective channel to disseminate current events related to education and literacy.

To determine the ways in which FB elicited engagement over the last year, an analysis of all St. John's University Ph.D. in Literacy closed FB group (SJUPHD) interaction was conducted of data from July 17, 2018 to July 17, 2019. SJUPHD FB content (318 posted items) were analyzed for engagement as defined by comments (written responses) and/or reactions (likes, love, ha-ha, wow, sad, and angry), totaling 1,032 reactions. The posts were organized into 6 categories that include: (a) Events and Opportunities (live and online events related to literacy education, professional development opportunities, job postings, and invitations to collaborate on education-related activities including surveys); (b) Education News (information from professional or popular news sources on any education-related topic); (c) Pop Culture (informative content that is not directly related to education in any capacity; all forms of memes); (d) Personal Connections (personal information on members of the SJUPHD community; personal invitations to meet up); (e) SJUPHD Professional Success (announcement of professional accomplishments of current or past members of SJUPHD community; congratulatory statements on progress of current SJUPHD online cohort); and (f) SJUPHD Program Resources and Logistics (logistical information and questions related to access to various aspects of the program).

Posts for one calendar year were categorized and ranked by number of participant comments. The categories of *Personal Connections* and *Professional Successes* received the majority of the comments based on analysis of the top 50 postings. By nature, these types of announcements disclosed personal information ranging from conference proposal acceptance letters to family-based posts, such as the birth of a new baby. Enthusiastic- and encouragement-related postings are evidence of self-disclosure, adding a personal touch and identity of an online community (Chugh & Ruhi, 2018). Notable, however, were the three postings that generated the most comments in the category of *Program Resources and Logistics*. Combined, there were 149 comments pertaining to courses, class start dates and function of SJU's online learning platform--Blackboard--occurring on August 27, September 5, and September 9, 2018. From August 23, 2018, to September 19, 2018--a period of two weeks prior to the start of the semester to two weeks after--there were 312 comments (out of 1,032 for the full year) written on posts made during the time frame. The SJUPHD FB group provided a transitional space for students as they moved into a new academic environment for study (Blackboard). It was observed that students utilized the FB space to communicate as they learned how to navigate newer technologies required in the online program. Kent and Leaver (2014) have also noted that students use more familiar technology, such as FB, to navigate new technological environments.

Online learning communities permit engagement beyond the traditional confines of a classroom or an office space; they promote the sharing of opportunities and experiences . . .

Tutoring

Online education can unintentionally remove the vital connection between teacher and student (Hsu, 2011). This lack of interaction (Croft et al., 2015) can cause students to feel isolated in their struggles (Zembylas, 2008). Founded on notions of collective responsibility and multiple entry points, the SJUPHD program (as well as students enrolled) has created methods of *e-immediacy* (Song et al., 2016) to encourage prompt communication and assistance for students when these struggles occur.

While tutoring is traditionally viewed to be focused on academic content, tutoring can extend into assisting others with logistics (Moisey & Hughes, 2008), digital literacy skills (Pendell et al., 2013), and even time-management strategies (LaPadula, 2010). Authentic mentorship (faculty or peer) can provide "personal and professional support that extends beyond the traditional advising affiliation" (Holley & Caldwell, 2012, p. 244). Levels of support including collective, peer-to-peer, and individual can be found throughout the program, and students can seek these different forms of assistance when needed. Peer video chat was a commonly noted method that students used to engage in communicating and conferring about research papers. Our review

of tutoring data revealed that students engaging in these collaborative interactions have higher pass rates on comprehensive examinations than those who refrain, as supported by the extant literature (Girves et al., 2005).

Although the program is asynchronous, live interactive review/Q&A webinars have been offered for supplemental clarification when classes have faced particularly challenging material (e.g., advanced statistics) or in extenuating circumstances (Toven-Lindsay et al., 2015). Prior to these workshops, students have the opportunity to send questions to the professor through the use of a Google Form survey. The professor then collates the questions sent and creates a webinar to address student concerns where students can join a live session. For students who are unable to join the session, a recording is provided and archived for subsequent access.

Other ways in which tutoring is currently provided include allocating extra time to work with students via the online learning channels, such as on Blackboard. Professors who provide prompt communication to students via email, phone, or text message not only show their support for students by responding in a timely manner but also build a sense of trust between student and professor. One SJU professor of qualitative research methods stated that she aims "to provide the same opportunities that parallel what students would receive in a face-to-face class. Scaffolding them through complex assignments requires individualized approaches to tutor and stay connected" (L. Bajor, personal communication, July 31, 2019).

In addition, some professors provide online "check-ins" with students in the form of optional virtual meetings, personal emails, and telephone calls. These varied forms of communication allow students flexible options for tutoring assistance. Professiorial mentorships can also provide students with ongoing support even while they are taking other courses within the program. At times, these relationships can be vital for students who seek a lifeline. Professors can offer support and guidance as well as pass on any critical information to the department to find ways to support the students.

Future Support

Within the SJUPHD, backchannel communication provided an avenue for current students to support their cohorts and also as a way for students who have already completed the program to mentor those who are still working on their degree. With an official FB group dedicated to the SJUPHD program, former students have demonstrated a willingness to mentor new and existing students on previous courses taken, time management, and professor interactions and communications as well as tips for success. The department recognized the interaction between new and former students and is in the process of collecting information to evaluate the idea of former students acting as peer mentors for students in newly formed cohorts. This interaction may include adding support such as a teacher's assistant (TA) within the final stages of the program whose sole responsibility would be to support the students when questions arise about the material. The TA could offer advice and support virtually alongside the instructor to guide individual students when distance-learning communications become ambiguous or self-determination mandates a resolution. Having direction come from a former or more experienced student promotes relationships and strengthens community membership by providing a learning liaison and mentor who has already "been in the trenches."

The department is also aware that students want more interaction within their own cohorts. In response to this need, there are plans to develop annual seminars on campus to facilitate developing relationships within the groups to foster a sense of community for students who work remotely. Formative feedback has revealed that students crave communication and interaction, and the department has recognized the need for a more formal form of mentorship and is in the process of adding a cohort gathering in New York City to future program participants. Not only will this program allow students to meet face to face, but students can connect outside of the academic world (in the form of meet and greets, structured mixers, seminars) and forge friendships that will support them once their coursework ends and dissertation writing begins.

Conclusion

The growing body of research related to online learning communities provides evidence-based options to university leaders, program directors, instructors of record, and students alike in their consideration of how to support students and their ever-changing needs. Students seek social-contextual spaces that allows them to forge interconnections and communal engagement (Deci & Ryan, 2002). Traditional face-to-face programs in developmental education can be supplemented through online communities of practice (Snyder, 2009) to promote professional relationship building between individuals who share a united purpose for personal growth and affiliation (e.g., empowering others through literacy). "As peers socially negotiate their understandings of a joint situation, they activate, differentiate, and elaborate on their prior knowledge; through generating and explaining new ideas, they transform their understanding of concepts" (Kapur & Bielaczyc, 2012, p. 56).

Online learning communities permit engagement beyond the traditional confines of a

classroom or an office space; they promote the sharing of opportunities and experiences ranging from teacher-led tutoring to collectively forged pathways of discourse, interaction, and development. Official and unofficial channels of communication allow the rapid transmission of information in ways that speak to students today. Just as how we teach and learn online today is vastly different than how we did prior to the Internet, so too must institutions of higher education consider not just whether to have online learning communities but also how to frame, nurture, promote, maintain, and strengthen them over time. Collective efforts are needed to ensure these communities are a good fit, remain optimally suited for their constituents, and work in tandem with the preferred learning management system.

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