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DOCTORAL STUDENT ONLINE LEARNING: ADDRESSING CHALLENGES OF THE VIRTUAL EXPERIENCE

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Abstract

Doctoral student attrition is a major problem in higher education. This qualitative study sought to understand student beliefs and perceived confidence levels in a primarily online professional doctoral degree in education. Before accessing course material and formal instruction, respondents assigned scores to a Likert-style survey and answered open-ended questions about their understanding of basic educational research methodology. The rise of distance education follows the rapid growth of technological advancement. Yet, much is still unknown about pedagogical practices that contribute to improved learning outcomes for students in the virtual environment. Themes that emerged from this study suggest that (1) student expectations do not align with prior preparation, (2) student beliefs about scholarly work lack depth, and (3) students exhibit high anxiety regarding doctoral instruction.

Key terms: *doctoral student persistence, online learning, virtual experience, doctoral student persistence, critically-reflective teaching*

Introduction

Doctoral student persistence and program completion remain a challenge in higher education (Caruth, 2015). The problem is particularly acute in doctoral programs delivered online or hybrid. Research reports that up to 70% of students enrolled in virtual doctoral programs do not finish (Rigler et al., 2017). Attrition among virtual doctoral students demands further exploration to understand what universities must do to stem the tide of students who leave programs prematurely. Holmes, Willis, and Woods (2016) concluded that examining onboarding processes for doctoral students may increase understanding of what students may need to undertake doctoral study at program entry.

Researchers in this study sought to explore learner confidence in participating ably in doctoral-level scholarship. Thus, a point of departure for the inquiry was to provide an opportunity for prospective students to assess confidence levels in understanding academic expectations, managing academic writing conventions, and contributing new knowledge to the profession. In this way, student perspectives helped shape initial instructional experiences and activities in a new doctoral program. Glassmeyer, Dibbs, and Jensen (2011) informed the present study, as the researchers asserted that learners' formative self-assessment information enables course instructors to improve the initial academic experience. The phenomenological study examined the relationship between formative assessment's perceived utility and its effect on the developing virtual community in online graduate-level courses (Glassmeyer, Dibbs, and Jensen, 2011). The researchers concluded that student engagement is achievable when instructors merge principles associated with the virtual learning community into formative assessment tasks. These tasks help students develop a sense of community in the virtual environment. Glassmeyer, Dibbs,

and Jensen (2011) concluded that while online instruction at the graduate Hamlevel increases rapidly, it does not come without barriers. Challenges include the following:
1. Feelings of isolation
2. Student dissatisfaction
3. Increased attrition rates
4. Decreases in measured student learning outcomes

Examining student perspectives before instruction may present an essential mechanism for understanding attitudes, expectations, and preparation. Students who are new to professional level learning bring a unique combination of knowledge and skills to the classroom. They are traditionally mid-career individuals who are seeking advanced degrees to improve career success, inform practice, or credibility in the chosen field. Meeting the needs of the non-traditional professional learner comes with its own set of unique challenges. Like any specific group of learners, new doctoral students create a unique culture that emerges organically and may lead to optimal learning experiences if adeptly managed.

Review of Literature

Success in online instruction at the graduate level often occurs by reducing learners' distance from a psychological perspective. The phrase "virtual community" derives from the notion that increasing activities that build trust, a sense of belonging, commitment, and shared goals are essential components for helping students navigate coursework (Talbert, 2016). Moreover, student retention and overall success hinge on the development of highly engaging and supportive learning environments. Wickersham-Fish, Rademaker, and Wetzler (2019) explain that pursuing a doctoral degree involves high-stakes outcomes and presents a set of challenges not present in traditional higher educational settings, including writing proficiency and academic socialization.

Strategies for Online Doctoral Student Success
Instructor-Student Relationships

Developing a sense of belonging and engaging in social integration are not new challenges in education; however, online learning tends to exacerbate these perceived barriers. To abate these obstacles, the development of healthy instructor-student relationships becomes a vital component of building a foundational support network to navigate the doctoral landscape (O'Malley, 2017). Additionally, mentoring is a keystone informing doctoral student success. Using an action research methodology, Wickersham-Fish, Rademaker, and Wetzler (2019) carefully explored experiences in the mentor-protégé relationship. Researchers examined three components, including ways in which doctoral students manage the following tasks: 1) make connections for engaging meaningfully in coursework, 2) make timely progress, and 3) remain committed to the task of degree completion. Two specific dimensions and four options emerged in the study:

Table 1
Dimensions and Options

Dimensions	Options
Adoption of an active or passive approach	Exit (active, destructive)
	Voice (active, constructive)
Adoption of a constructive or destructive approach	Loyalty (active, constructive)
	Neglect (passive, destructive)

Wickersham-Fish, Rademaker, and Wetzler (2019) support the importance of mentoring and suggest a cultural practice among academicians meant to socialize students into the academy. Conversely, the study revealed that doctoral students believed that faculty did not possess the ability to guide them towards degree completion. Further navigation of relationships via web-based technologies adds a layer of complication in the relationship-building process that may exist under extreme scrutiny from the administration that focuses on completion rates and the need for positive student success data.

Building Online Learning Communities

As online learning becomes a normative vehicle for instruction delivery, educators are beginning to understand the critical nature of connecting learners to content and one another (O'Malley, 2017). Practitioners in the field refer to this approach as *humanizing learning* (Pecansky-Brock, 2019). Pecansky-Brock (2019) elaborates that the humanized learning context "leverages the potential of digital technologies" to create foundations to transcend physical distance, foster relationships, and build community.

O'Malley (2017) describes five factors that assist with building online learning communities: (1) Humanizing the instructor by allowing students to become acquainted with the instructor; (2) Incorporating video into course delivery, which can be accomplished through video discussion boards or synchronous video-conferencing class sessions; (3) Meeting in real-time with the incorporation of residencies or other high-impact events; (4) Encouraging learners to work together and become resources for one another; and (5) Requiring consistent interaction among class members. Wehler (2018) adds that when instructors make themselves available, create "outside of class" spaces for learners such as chat rooms or cafes, and bring the broader university community by posting information on webinars and other campus events, the learning community benefits. Summarily, developing a sense of community and facilitation of ongoing interaction between students and faculty represent best practices in managing online student learning at the doctoral level.

Understanding the constructs that contribute to student attrition at the doctoral level is essential for development. Terrel, Snyder, and Dringus (2009) explain that attrition rates are higher in distance and low-residency postgraduate programs. The researchers employed the Doctoral Student Connectedness Scale (DSCS), an instrument used to determine if a student is at-risk during the dissertation phase. Findings based on the DSCS confirmed that low rates of peer-to-peer and student-to-faculty interaction exist as contributing factors leading to a departure from the doctoral program (Terrel, Snyder, and Dringus, 2009). Research supports that connectedness, engagement, and belonging are critical to the retention of doctoral students at all

stages of the process. Specifically, this study recommended the development of a community of practice (CoP) among postgraduate students.

Social Presence in Online Teaching and Learning

Developing a sense of social presence is a tone set by the instructor in the online classroom, which compels students to engage. Advances in technology have profoundly affected the development, delivery, and dissemination of information around the world. Oblinger (2014) confirms that high engagement levels lead to increased student achievement, progress towards completion, and a greater sense of satisfaction. Like the face-to-face environment, instructor presence is an essential component of the overarching instructional framework. Still, online courses come with unique challenges because they lack the traditional face-to-face meetings where interpersonal dynamics are present. The Community of Inquiry (COI) framework holds promise by directing efforts towards three key tasks:

1. Instructional Management
2. Building Understanding
3. Direct Instruction

While much of the information presented in online teaching studies illustrate the differences between online and face-to-face instruction, many important tenants of quality instructional practices exist without regard to the medium of delivery. Brookfield (2017) explains the importance of critically reflective practices as an essential element of improvement and quality. Faculty in the virtual environment must engage in critical reflection and be willing to make necessary adjustments to practice to meet students' needs.

Methodology

This inquiry used a qualitative methodological approach with a Participatory Action Research (PAR) design. Qualitative research seeks to interpret and document a phenomenon from an individual's frame of reference (Creswell, 1998). Concomitantly, the goal of Action Research and a PAR design is explicitly to empower participants to engage in the research process to improve shared experiences by applying philosophical foundations of PAR, which embraces the shifting of understandings where shared realities exist (Kelly, 2005). The research team for this study wanted participants to reflect on the phenomenon being experienced and discuss the knowledge and insights needed to improve individual and community learning. Before formal class instruction began, researchers sought strategies to amplify student voices and integrate student perspectives into shaping the learning context. Bergold and Thomas (2012) posit that participatory research methods aim toward including the people whose actions are under study.

The research team used purposeful sampling and convenience sampling to select participants for the study. Patton (2002) explains purposeful sampling as using information-rich cases strategically to produce a study's credibility. Convenience sampling implies participants are selected based on ease of access (Patton, 2002); thus, combining sampling these two strategies was more appropriate to the aims of this study's PAR research design (Patton, 2002). Researchers selected 11 students enrolled in an inaugural cohort of a doctoral education program. Data collection focused on a qualitative questionnaire administered to students before the beginning of the second academic year to understand various aspects of the student experience during the first year of doctoral study. For analysis purposes, the research team used in vivo

coding to mapping participants' words and phrases as codes in the data record and concept coding to assign macro levels of meaning to data. These two qualitative analysis forms are useful and appropriate in recent qualitative analysis literature (Miles, Huberman, & Saldana, 2020).

Theoretical Framework

Emerging theories derived from established learning theories apply specifically to the context of online learning. For this article, Garrison, Archer, and Archer's Community of Inquiry (2000) is the overarching model to provide a lens to examining online learning and the challenges of the virtual learning experience. The model supports the design of online and blended courses as active learning environments dependent on instructors and students sharing information, ideas, and opinions. Engagement with content and class members creates a "presence" of three types: teaching, cognitive, and social, which all contribute to the learning experience. This model directly applies to the phenomenon under study. The instructional team has embedded interactive opportunities into the course design, including discussion boards, video introductions, a course café, and video-conferencing to create a community of inquiry.

A secondary theory, Siemen's Theory of Connectivism (2004), provides an additional lens to explore online learning environments. The theory acknowledges major shifts in the flow, growth, and changes in information delivery and consumption, resulting from immense data communications networks. Internet technology has allowed learning to shift from internal, individualistic experiences to group and community activities. Siemen's theory (2004) purports that learning, as defined as actionable knowledge, can reside outside of the individual through an organization, database, or learning management system. The theory also focuses on increasing specialized knowledge and the connections that enable learners to become purveyors of new knowledge. The context for the phenomenon under study represents the Theory of Connectivism through evidence revealed through pre-assessment data.

Research Findings and Discussion

The research team found that students reported high levels of self-confidence in the basic constructs of research. In response to ten Likert-type scale survey questions about confidence in abilities surrounding several core research areas, new doctoral students indicated a high understanding in conducting and carrying out research. In addition to the Likert-type scale questions, participants were asked to describe three objectives they hope to achieve from the academic residency experience.

A variety of factors influence student perceptions towards the doctoral training process. While some students enter advanced degree programs with career advancement aspirations, others are already well-positioned within an organization and seek increased credibility and stature. These motivations are especially relevant for understanding the dynamics in play relating to community development among cohort members. Balancing the multiplicity of reasons that compel one to undertake advanced educational preparation allows for a more robust and relevant profile for faculty responsible for the delivery of content, collation of information, and ultimately nurturing of future scholars who should be able to employ the skills of research and scholarly inquiry to improve problems of practice within systems of education and organizations. On the scale, respondents select 1- Not Confident, 2-Somewhat Confident, 3-Confident, 4- Very Confident, or 5- Extremely Confident. The table below reveals results from data collection.

Table 2
Students' Self-Reported Levels of Confidence

Students' Self-Reported Levels of Confidence
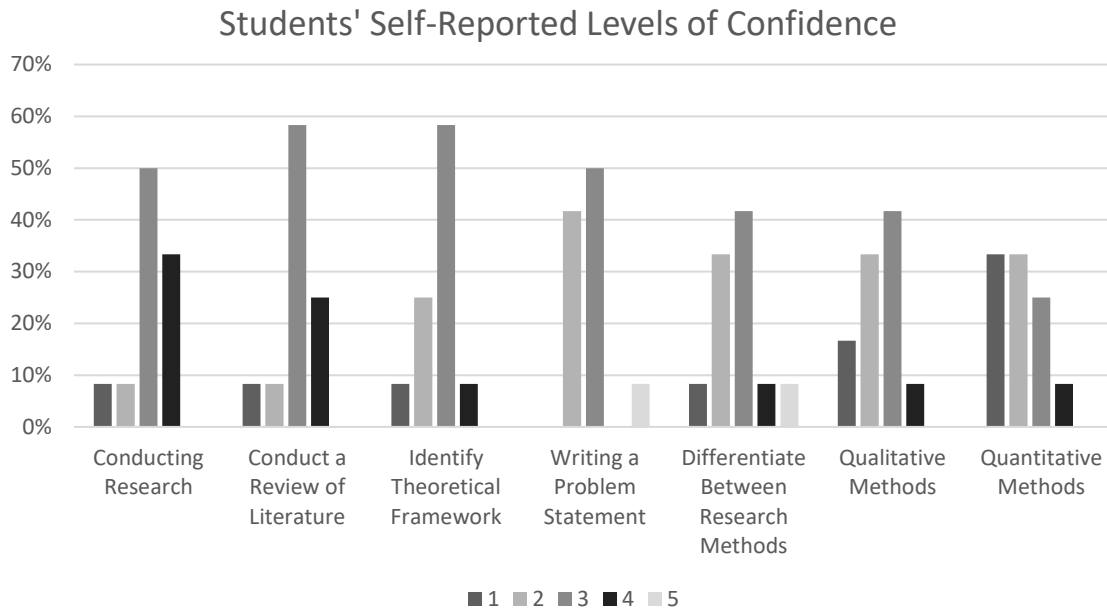
The data suggest that new doctoral students possess three main dispositions regarding the doctoral training process before accessing course material and instruction. Compared to respondents' answers on Likert-style questions measuring students' confidence and open-ended questions assessing student expectations, suppositions create emerging themes about new doctoral students' mindset entering an online professional doctorate program.

Table 3
Emerging Themes

Theme	Description	Explanation
1	Student expectations are not aligned with prior preparation.	Student responses to Likert style questions about preparation do not reflect the same information provided in the narrative responses about expectations.
2	Student beliefs about scholarly work lack depth.	Generally, students feel like they understand the research process but reveal lacking confidence in core methodological competencies.
3	Students exhibit high anxiety about doctoral instruction.	Students fear isolation and lack of community in the doctoral training process at the onset.

Discussion

This inquiry's formative assessment revealed that participants desire a sense of community with fellow learners and instructional faculty. Participants indicated a need to develop strong support systems. Responses aligned closely with Siemen's Theory of Connectivism (2004). Remote learning, while functional and often effective, cannot replicate the face-to-face learning experience. In this study, doctoral students shared a higher level of appreciation for the in-person format of content delivery. Some of the comments elicited during the data collection phase of the study include the following statements, where participants indicated they wanted to

"Meet other professors and students. Start a good professional relationship.
"Build relationships with faculty and peers."
"Gain some insight from in-depth conversations with others."
"Understand faculty and peer expectations."

Another important theme emerged from the study, indicating that student preparation before enrolling in a doctoral program did not align with their expectations. In other words, students had similar beliefs that study at the Masters' level would prepare them for doctoral work but learned quickly that their level of preparation was inadequate as it pertained to doctoral study, especially in the area of scholarly writing—engaging in writing assignments that foster community-building is essential in the online delivery of doctoral instruction. Thus, students expressed gratitude that scholarly writing within the safe space of the cohort would underpin the entire online doctoral program, which will allow them to attain some of the relationship goals that they indicated were important to their academic success.

The results of this formative assessment will be incorporated into the instructional model for the virtual Community of Inquiry under study. Opportunities to develop and grow student-to-student relationships and student-to-faculty connections will be offered during the program's residency portion. A post-assessment with the same cohort of doctoral students will be the focus of a future study.

Recommendations

Future studies should continue to explore the complex issues that contribute to doctoral student attrition. Specific investigation of problems affecting the virtual or online aspects of instruction may improve outcomes and increase student success rates among postgraduate learners. Data from student satisfaction surveys, self-assessments, and evaluations provide an essential dataset for examination as a part of the quality enhancement process.

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