MENTORING ONLINE DOCTORAL STUDENTS THROUGH A COMMUNITY OF PRACTICE MODEL

Dr. Barbara Yalof
Barbara.Yalof@ace.edu, American College of Education
byalof@harcum.edu, Harcum College

Dr. Barry Chametzky
barry@bluevine.net, Washington & Jefferson College

Abstract: Numerous educational theorists have researched the question of why doctoral learners leave their programs and numerous hypotheses abound. Online doctoral learners have unique needs not always adequately addressed. As a result of these unmet needs, attrition in doctoral programs is alarmingly high nationwide. In this study, we examine one particular online community of practice (CoP) to understand more completely how and why, after four years of being in existence, it remains robust. Based on interviews and analysis of data, the authors have determined that three elements make the CoP so successful: camaraderie, commitment, and cognition. Within the sanctuary of this highly structured CoP, learners are free to ask questions of peer members and develop friendships. Members in the CoP are dedicated to learning and mastering a particular qualitative methodology and assist less-experienced students whenever possible. Established experts are invited to talk about various components of the methodology. These elements have far-reaching implications not only for the CoP in question but also for learners in other fields of study who wish to develop their own CoPs.

Keywords: Community of Practice, mentoring, online virtual mentoring, Professional Learning Communities

Background

The proliferation of online learning programs has provided many schools with significant income-generating opportunities. Many schools are appealing to potential students eager for education but not able to come to a campus (Allen & Seaman, 2011). Little attention has been given the infrastructure necessary to support these students, however. This oversight results in decreased enrollments and demoralizing attrition rates from online programs (Allen & Seaman, 2011).

Doctoral students enrolled in online programs have higher rates of attrition than doctoral students who study on campus (Terrell, Snyder, Dringus, & Maddrey, 2012). Educational theorists (de los Arcos, Coleman, & Hampel, 2009; Yalof, 2014) have indicated that online students may experience frustration, isolation, and a sense of disconnect from their institution because they often do not receive help when needed. Many online learners feel stalled and unable to progress in their educational goals. To keep these students enrolled, institutions need sophisticated educational and interpersonal methods to support engagement and to sustain motivation.

The questions of why online doctoral learners leave their programs and what can be done to prevent this attrition have been asked by numerous educational researchers (Willging & Johnson, 2009; Sutton, 2014). Educational theorists (Fetzner, 2013; Sutton, 2014; Willging & Johnson, 2009) have suggested various causes for attrition including: (a) poor time management, (b) personal or family issues (Ali & Kohun, 2006; Berkholder, 2012), (c) dislike of the online format, style of instruction, or duration of the courses (Shaw, Chametzky, Burrus, & Walters, 2013), (d) overwhelming technical issues, (e) isolation (or lack of physicality and lack of socialization (Ali & Kohun, 2006), or (f) a misalignment of "expectations between the student and the department" (Berkholder, 2012, p. 7).

Online doctoral learners do not fit the demographic of students who attend school on campus (Allen & Seaman, 2011). Online students are often geographically diverse and have a different sort of graduate experience from the traditional, on-campus student. While programs conducted on campus rely on promoting student interaction through face-to-face classroom discussions or departmental get-togethers, an online student cannot form a social community in this manner (Terrell et al., 2012). Loneliness (Patton, 2014) and isolation have permeated the learning milieu of doctoral students (Ali & Kohun, 2006) and certainly are problematic for online students who struggle to feel they belong in the absence of any physical proximity (Yalof, 2014).

Numerous educational researchers (Ali & Kohun, 2006; Council of Graduate Schools, 2009; Patterson & McFadden, 2009; Sutton, 2014) found that attrition at the doctoral level is approximately 50% (Di Pierro, 2012). Berkholder (2012) suggested a wider range of 40% to 70% nationwide; Terrell et al. (2012) supported the statistics presented by Berkholder (2012), noting that attrition in all doctoral programs is roughly 40% to 50% but slightly higher (10%-20%) for online doctoral programs. Such statistics are alarming, highlighting the importance of understanding the causes of this attrition.

The Role of Peer Interaction

The authors of this paper focus on one of the most cited causes of attrition of doctoral students: lack of contact with peers and mentors (Terrell et al., 2012). In a face-to-face environment, faculty members guide learners. However, in an online environment, such close interaction might not be possible. Isolation and loneliness (Ali & Kohun, 2006; Janta, Lugosi, & Brown, 2014) are rarely felt in face-to-face programs—at least not to the degree that online students report them (Terrell et al., 2012).

Terrell et al. (2009) found the sole source of information for doctoral students is their faculty mentor. Thus, many things hinge on the competence and willingness of this mentor to provide support. Because these students have only one resource, they often feel frustrated and isolated. Slow response times, lack of structure, or faculty seen as "overburdened with the number of students in the program" (Terrell et al., 2012, p. 7) have contributed to student frustration and sense of disempowerment.

In their research, Terrell et al. (2012) illuminated the disturbing fact that peer interaction, though important, is not very prevalent at the doctoral level. Further, faculty educators are not as responsive as learners would like. Both elements contribute to learner attrition at the doctoral level (Sutton, 2014). Berkholder (2012) opined, "Students want something intentional, like an ABD support group meeting, with a faculty member . . . some mechanism . . . but the bottom line? They wanted faculty to be involved" (p. 17). Because students see only the work of faculty only on their comments, they might believe that the instructor is not working hard enough to assure their success.

To minimize "loneliness and isolation" (Janta, Lugosi, & Brown, 2014, p. 553), doctoral learners must accomplish two tasks. First, they must immediately voice any concerns or problems they have. Because of the limited experience online doctoral students have with being "self-directed," (Janta, Lugosi, & Brown, 2014, p. 556), and because of the pedestals on which they place faculty members, learners often remain silent (Janta, Lugosi, & Brown, 2014). They believe that silence demonstrates that they do not need assistance (Cortazzi & Jin, 1997; Janta, Lugosi, & Brown, 2014).

Second, to reduce negative feelings, doctoral students must ask their peers questions on topics on which they need help (Janta, Lugosi, & Brown, 2014). To calm the learner (Chametzky, 2013a), stability and the reduction of loneliness and anxiety may be cultivated through a community of practice (CoP) (Lave & Wenger, 1991) as a venue in which to feel comfortable to ask questions. Systems of encouragement, support, and guidance serve a vital role in online and traditional education especially when learners find that "the educational institution is unable to provide for all of their needs" (Yalof, 2014, p. 18). Learners "who study online must master both program material and their emotions to move smoothly through a curriculum. Support from their peer group empowers both of these areas" (Yalof, 2014, p. 21).

The authors of the current study will add support to Terrell, Snyder, Dringus, and Maddrey (2012) through endogenous, evidentiary data that an online cohort or CoP (Lave & Wenger, 1991) helps online doctoral learners

(and online learners in general) reduce feelings of disconnection and isolation as well as regain some stability in their academic lives (Chametzky, 2013b) as they position themselves to succeed (Yalof, 2014).

Setting

The authors examined the following three components of setting: (a) the post-secondary learning institution (b) the locations of the students and guest lecturers in a specific cohort, and (c) the cohort itself. Only by examining each of these components were the authors able to obtain a fuller, more comprehensive perspective.

The Post-Secondary Learning Environment

The setting for our experiential study is a regionally accredited, online post-secondary school physically located in the southwestern United States. The school was founded in 1996 and offers undergraduate and graduate degrees in business and technology management, education, psychology, and marriage and family sciences. One important selling point of the school is the absence of a physical residency requirement. It is reasonable to believe that not having to travel periodically to complete a residency requirement is a convenience and a benefit. Yet, one clear downside to a no-residency requirement is that students often work in isolation with little chance to meet in-person the people with whom they share a curriculum.

Community of Practice (CoP)

Throughout this article, we refer to our cohort as a CoP (Lave & Wenger, 1991). A CoP is characterized by certain attributes that make it more valuable to its members than a club or group of friends. Members of a CoP are practitioners in a similar field. Each person shares a commitment to the success of his or her peers and believes that without mentoring, he or she would have great difficulty succeeding.

The CoP (Lave & Wenger, 1991) in question was conceived in 2010 by two faculty members and one doctoral student to understand the complicated qualitative methodology of Classic Grounded Theory. Other learners who needed assistance soon joined this individual student. The original idea for creating the group developed through success of the two faculty members when they studied the methodology. Since its inception, the CoP has grown to approximately 25 people. Of those 25 people, six have successfully defended their doctoral dissertations with three people each earning Doctorate of Philosophy and Doctorate of Education degrees. Six or seven members are in the final stages of their writing; the remaining members are working on their milestone documents.

Investigations and Practice

In this experiential study, the authors will analyze the CoP, now in existence for four years, from an endogenous perspective. By examining the makeup and function of this particularly effective online cohort, the authors will offer reasons why such a cohort is beneficial for online doctoral learners and for learners in general.

To understand the unusual success of the particular cohort in question, an analysis of four years of data totaling over 1000 pages of Skype chat records from January 2011 through September 2014 was conducted. The data were categorized. Then, interviews were conducted with cohort members. It was important to understand more clearly why cohort members willingly answered other members' questions, sometimes before attending to their own tasks. What were the participants gaining from the group that made them willing to invest so much time and effort?

The small, faculty-initiated project generated a positive role modeling experience for the students who, prior to graduation, served a similar mentoring leadership role with other students. Through strong scaffolding and ongoing support of this solid group, each member felt appreciated for what he or she contributed.

Without forcing the data from the Skype chats to fit into any predetermined categories (Glaser & Strauss, 1967), it was discovered the emergence of three overriding concepts: camaraderie, commitment, and cognition. These dimensions formed the foundation for the success of the cohort. It is through cognition (how members of the CoP acquired the skills necessary to learn the Classic Grounded Theory method), camaraderie (the comfort of the members to share ideas and ask questions whenever necessary), and commitment (the knowledge that each member is not alone in his or her journey) that a CoP and its members are successful.

Camaraderie and Commitment

The researchers found members of the cohort invested a great deal of energy into assuring their group members were successful. For many senior members of the cohort, a strong sense of commitment existed. It was this obligation underpinning feelings of "paying it forward" as several participants have mentioned. When help is needed, anytime, anyplace, for as long as necessary, members must know they are not alone. After their studies are completed, the satisfaction that learners gained through being part of such a tight group encourages them to support those learners who are still in need.

Students do not want to create impediments for themselves in the doctoral process. They believe that their limited time with their chair and committee should deal only with important issues. Online students often do not know whom to ask about concerns. Answers they seek may be complex, and it may take time to locate an individual familiar with the school policy. A peer in the cohort, who is less emotionally involved, may be able to offer advice on how to work through or around barriers. Further, peer interaction lessens anxiety. With lower anxiety level (Chametzky, 2013a), learners are better able to grasp the complex concepts of the methodology. This ease generates camaraderie among members. Building expertise is facilitated without anxiety.

Cognition

Each member of the cohort joined to learn how to conduct research in the Classic Grounded Theory method. The CoP is highly structured so that each person can find answers quickly and learn as much as possible. Each member helps other members (a) locate hard-to-find references in seminal literature; and (b) practice the established techniques and components of the Classic Grounded Theory method. This research methodology must be followed in a careful manner; otherwise the researcher will not reach the objectives of the study. The cohort members have devised numerous ways to ensure information is disseminated, understood, and practiced. Because the Classic Grounded Theory method is complex and experiential, each of the components must be explained clearly to less-experienced members.

Building a repository for information sharing. The members of our CoP created and continue to maintain a comprehensive wiki page, which contains relevant information accessible to everyone. One example is an intricate diagram posted by one member outlining the components of how the Classic Grounded Theory method works and what resources are available on the Internet concerning this complicated research methodology. Another example is a sample transcript of a coded interview. During one of the planned collaborative group Skype sessions, the coding was discussed and analyzed for teaching purposes. All members are encouraged to post information for the group to discuss and critique. In addition, peer-reviewed articles are shared via crocdoc, which allows students to make annotations and offer comments. The repository functions as a FAQ for doctoral students. The sharing and creating of this storehouse of information is essential to the continuity and relevancy of the CoP. During meetings, cohort members continually refer one another to where the information is posted.

Guest experts in the field. Our faculty members have contacts with eminent researchers in the field of Classic Grounded Theory. Experts from Canada, England, and the United States visit our group (virtually) and offer a master-class. Cohort members present works-in-progress to these scholars for feedback.

After the master class with the guest presenter, assignments are created for the group to practice what was learned. The continuous hands-on practice of the intricacies of the method allows the members to experience what they have learned.

Skype meeting recordings. Each virtual meeting is recorded and placed on the wiki for members. Important meetings and other group literature are indexed by a volunteer group member. Recording and posting meetings allows anyone to visit or revisit important sessions including meetings with experts and sessions where homework was assigned and analyzed.

The Skype chat area allows cohort members to post questions about anything related or tangential to group knowledge. A member may post a question about an obscure Classic Grounded Theory concept, or need a certain quotation, and receive an answer within a very short period of time. One area often discussed is technology.

Analysis

Within this supportive cohort venue, members provide information to peers in a quasi-teaching role thereby enhancing their own "feelings of self-worth" (Yalof, 2014, p. 18). Though learning has an individual aspect to it, various educational researchers (Decker, Dykes, Gilliam, & Marrs, 2009; Mezirow, 1971, 2000) commented that it is through interaction and collaboration that learning is stimulated and fostered. In the CoP, each person can consult with another member without being judged. Roles can reverse at any time, as one person might have expertise in a topic in which another person is a novice. Tutoring relationships become the basis for personal relationships. This fluidity of roles characterizes the practice of the network (Yalof, 2014). Starting from a small unit of three members—two faculty members and one doctoral student—the group grew into a much larger group of learners and professionals who shared the same passion.

Transitioning from Novice to Expert

In the early days of the cohort, information was presented by the faculty member leader(s). As members joined the cohort and as the students gained knowledge, the transfer of knowledge occurred through peer teaching. While under the tutelage of the faculty leader, the more advanced peer learners transitioned from novice to expert. Such transition allowed the advanced learners to assist those lesser-experienced learners with greater ease and conviction. In fact, in an attempt to be overly helpful, but not in a negative way, the more experienced learners often provided much information before it was needed. Because of this additional sharing, group members were available to guide the less-experienced student. For example, one member reviewed the literature of Classic Grounded Theory and created an index where none had been available. One member said:

> So the cohort became a place where I found specific knowledge of the methodology but also compassion from others who also had their own journey of understanding. You all were happy to put up with my newbie comments that often missed the mark, and you tried to guide me towards a better understanding. So then, love developed in my heart for the team in the cohort.

Strengths and Weaknesses of The CoP

Because of the highly structured procedures of this CoP, a key strength is the almost immediate availability of help. Members of the CoP provide clarification of the most intricate details related to the Classic Grounded Theory method. One weakness of the practice affects all CoPs. Not all participants are willing and able to put in the extra hours necessary to practice the techniques employed. A substantial time commitment, in addition to the time already invested in school, is necessary to remain a contributing and active member of the CoP. If members of the CoP are not able or willing to put in the extra time necessary, they need to make a decision. Sometimes, these people become inactive members of the cohort and use it only as a tangential resource. More often, though, members decide that learning the Classic Grounded Theory method in an isolated environment is too challenging; they choose an easier methodology.

Scaffolding

The fact that the members are attuned to the needs of each other exemplifies the way a good CoP should function (Holley & Caldwell, 2012). Members of the cohort are online nearly 24/7. Should someone have a question, people often respond in a very short time. Developing a shared knowledge base happens in conjunction with a growing feeling that cohort members are available for each other in *any* capacity, at *any* time. As one member wrote,

> I am not alone anymore . . . not just you and the computer . . . we share and have classes with mentors who give freely of their time and knowledge to see us succeed. It has been an amazing experience.

An example of our scholarship is the numerous discussions on coding raw data in a Classic Grounded Theory method study. Often, members of the cohort conducted mini-grounded theory studies consisting of mock 5-minute interviews followed by group conceptual coding and memoing. Such teaching exercises help minimize anxiety (Chametzky, 2013b). One participant commented: "this board is great too; at any time someone is here to help out." The same participant opined,

In the beginning . . . I had no idea what was going on, I just knew [sic] that I wanted to be a part of it. I listened and read a lot. I really believe that all of you have helped me get my CP [Concept Paper—first milestone in the dissertation process] through the GS [Graduate School] and for that I'm really thankful.

Each member of the CoP is learning the Classic Grounded Theory method and is freely able to scaffold with other members; such valuable interaction is encouraged and welcomed. According to one participant, "You and this group are a great encouragement! I hope that you continue to stay as active. You are always available, it seems :-]." Another participant mentioned "You guys are all resources for each other."

Applications for Other Areas

On-campus doctoral students may feel just as isolated and sad (Janta et al., 2014) as students who study online. Recently, Patton (2014) interviewed black doctoral students for an article in the Chronicle of Higher Education (Sept 26th). The article detailed the difficulty of being black and maintaining momentum towards earning a Doctorate of Philosophy. Despite being an on-campus student, one student, Vincent Bastile, noted he reached out to "his own informal community of graduate students and faculty of color for support" (p. A10). The coping mechanism of this student was to seek help outside the mainstream sources of help for doctoral students. The need to create supportive groups may be even greater for online students.

What a CoP creates is an "advisor-advisee relationship" (Sutton, 2014, p. 17). In reality, the CoP goes far beyond what might be a formal, business-like relationship. Yalof (2014) explained how "active members of an online support group credited the group with not only intellectual stimulation but also emotional support to continue to completion despite obstacles" (p. 23) thus supporting the comment that "it takes a community of scholars to build, retain, and graduate a community of scholars" (Di Pierro, 2012, p. 32).

One of the most significant outcomes of our investigation was the realization that institutions of higher education begin too late, or not at all, to help students find the scaffolding they need to succeed. A CoP should exist beyond one or two classes, as so often the practice in graduate education.

Setting up CoPs that meet and provide information online can be effective for all students, regardless of whether they meet on campus. Many students would benefit from having a group of like-minded students to share their methods of working with doctoral committees.

CoPs are effective ways to share knowledge and build community outside of education as well. CoPs can be very effective in business and medicine. Using the highly structured cohort described in this paper as a model for sustained success might benefit physicians and medical students who share sustained interest or research in one area. An ongoing conversation among experts and those who seek information would be invaluable to facilitate global research efforts. Members of a CoP could constantly review best practices in medicine.

Recommendations

We believe the power of this cohort to prevent doctoral program drop out lies in a few different areas. The emotional power of knowing someone is there who can answer perplexing questions is critically important. We suggest that a cohort that supports the needs of online doctoral students for an extended period, rather than from course to course, is vital to the emotional, social, and educational well-being of the learner. Members bring in newer potential group members who build expertise and may, in turn, provide their knowledge and support. The following is a short list of our recommendations to institutions of higher learning and to students:

- Promote CoPs to students and encourage faculty to create or join existing CoPs
- Provide a means for members to communicate and see each other via various face-to-face technologies
- Record virtual meetings
- Use a wiki or other online system to support posting of relevant materials and communications
- Bring experts to meetings to provide their scholarship and feedback
- Keep an ongoing chat available for members to ask questions and receive help
- Invite interested students to join the meetings
- Assign "homework" for group meetings-and make members accountable for contributing to group knowledge

- Encourage members to lead and take responsibility for group meetings
- Encourage members to continue involvement after graduation

Implications for Practice

Our field study showed that successful online students recognize that if they feel disengaged they must build their own supports. Through building relationships, they generate new resolve. Sutton (2014) observed that "the seminal research of Tinto (1975, 1993) on student persistence revealed that the greater the level of academic and social integration, the greater the student's chances of persisting until graduation" (p. 6).

Institutions of higher learning should become more aware of and supportive of the attempts of their own instructors and students to form cohorts to support each other's learning. Efforts to form online communities within a particular course are admirable. More effective, however, are cohorts supporting students throughout their doctoral journey. CoPs should become a vital part of the education of each student so that online students will not suffer. Efforts to keep a CoP vital, relevant, and continually self-generating are facilitated if the CoP itself anticipates student needs. The social discourse is important, but the need for knowledge is more important to ensure successful completion of an online program. An effective CoP gathers practitioners and disseminates information. The CoP described in this paper does this and also creates an atmosphere of acceptance, the best combination for success.

Future Research

Future research is needed in development of CoPs in online programs. It would be valuable to assess the effectiveness of online CoPs towards preventing attrition in both on-campus and virtual programs. It is important to understand how best to set up and support communities of learning for students who do not meet face-to-face.

References

Ali, A., & Kohun, F. (2006). Dealing with isolation feelings in IS doctoral programs. *International Journal of Doctoral Studies 1*, 21–33. Retrieved from http://www.informingscience.us/icarus/journals/ijds/

Allen, E., & Seaman, J. (2011). *Going the distance: Online education in the United States*, 2011. Retrieved from http://sloanconsortium.org/publications /survey/going_distance_2011

Berkholder, D. (2012). Returning counselor education doctoral students: Issues of retention, attrition, and perceived experiences. *Journal of Counselor Preparation and Supervision, 4*(2), 6-23. http://dx.doi.org/10.7729/42.0027

Chametzky, B. (2013a). Offsetting the affective filter and online foreign language learners. Retrieved from http://www.igi-global.com/open-access/paper/offsetting-affective-filter-classic-grounded/7

Chametzky, B. (2013b). Generalizability and offsetting the affective filter. *Grounded Theory Review, 12*(2). Available from http://groundedtheoryreview.com/2013/12/22/generalizability-and-the-theory-of-offsetting-the-affective-filter/

Council of Graduate Schools. (2008). Ph.D. completion and attrition: Analysis of baseline program data from the Ph.D. completion project. Washington, DC: Author. Retrieved from http://phdcompletion.org/resources/CGSNSF2008_Sowell.pdf

Decker, A., Dykes, M., Gilliam, J., & Marrs, S. (2009). Being students again: Balancing ambiguities, expectations, and responsibilities. In *annual meeting of the Southern Regional Council on Educational Administration, Atlanta, GA*.

de los Arcos, B., Coleman, J., & Hampel, R. (2009). Learners' anxiety in audiographic conferences: A discursive psychology approach to emotion talk. *ReCALL, 21*(1), 3-17. doi:10.1017/S0958344009000111

Di Pierro, M. (2012). Strategies for doctoral student retention: Taking the roads less traveled. The Journal for Quality & Participation. Retrieved from http://www.aspq.org/pub/jqp

Fetzner, M. (2013). What do unsuccessful online students want us to know? *Journal of Asynchronous Learning Networks, 17*(1), 13-27. Retrieved from http://onlinelearningconsortium.org/publications/olj_main?page=1

Glaser, B. (2009b). The novice GT researcher. *The Grounded Theory Review, 8*(2), 1-22. Retrieved from http://groundedtheoryreview.com

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Mill Valley, CA: Sociology Press.

Holley, K., & Caldwell, M. (2012). The challenges of designing and implementing a doctoral student mentoring program. *Innovative Higher Education, 37*, 243-253. doi:10.1007/s10755-011-9203-y

Janta, H., Lugosi, P., & Brown, L. (2014). Coping with loneliness: A netnographic study of doctoral students. *Journal of Further and Higher Education, 38*(4), 553-571. http://dx.doi.org/10.1080/0309877X.2012.726972

Kiliç-Çakmak, E., Karatas, S., & Ocak, M. (2009). An analysis of factors affecting community college students' expectations one-learning [sic]. *Quarterly Review of Distance Education, 10*(4), 351-363. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education.html

Lave, J. & Wenger, E. (1991): *Situated learning: legitimate peripheral participation.* Cambridge, Cambridge, UK: University Press.

Mezirow, J. (1971). Toward a theory of practice. *Adult Education Journal, 21*(3), 135-147. doi:10.1177/074171367102100301

Mezirow, J. (2000). Learning to think like an adult. Core concepts of transformation theory. In J. Mezirow and Associates (Eds.), *Learning as transformation. Critical perspectives on a theory in progress* (pp. 3-33). San Francisco, CA: Jossey-Bass.

Patton, S. (2014, September 26). After Ferguson, black students ask: Does a Ph.D. still matter. *The Chronicle of Higher Education, LXI*(4), p. A10. Retrieved from http://chronicle.com/section/Home/5

Shaw, M., Chametzky, B., Burrus, S., & Walters, K. (Winter 2013). An evaluation of student outcomes by course duration in online higher education. *Online Journal of Distance Learning Administration, 16*(4). Available from http://www.westga.edu/~distance/ojdla

Sutton, R. (2014). Unlearning the past: New foundations for online student retention. *Journal of Educators Online, 11*(3). Retrieved from http://www.thejeo.com/index.html

Terrell, S., Snyder, M., Dringus, L., & Maddrey, E. (2012). A grounded theory of connectivity and persistence in a limited residency doctoral program. *The Qualitative Report, 17*(Art. 62), 1-14. Retrieved from http://www.nova.edu/ssss/QR/QR17/terrell.pdf

Willging, P. & Johnson, S. (2009). Factors that influence students' decision to dropout [sic] of online courses. *Journal of Asynchronous Learning Networks, 13*(3), 115-127. Retrieved from http://onlinelearningconsortium.org/publications/olj_main

Yalof, B. (2014). Marshaling resources: A Classic grounded theory study of online learners. *The Grounded Theory Review: An International Journal, 13*(1), 16-28. Retrieved from http://groundedtheoryreview.com

