From Candidate to Colleague: Mentoring Online Doctoral Students

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Abstract

Faculty who work with candidates in online doctoral programs entail many of the same challenges and opportunities as those serving candidates in programs that are offered in traditional, face-to-face modalities. The main difference is that in working with online doctoral candidates, there is no common physical space for candidates to interact with faculty and peers, which can present additional challenges for candidates and their committees. This editorial article focuses on the dissertation phase of online doctoral candidates' studies and the ways in which chairs and committee members can understand, frame, and most effectively guide their candidates through that phase by understanding theories and models relevant to working with adults who are destined to become not just graduates, but professional peers.

Keywords: andragogy, cognitive apprenticeship, communities of practice, dissertations, mentorship, motivation theories, online doctoral education

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Introduction

Anyone with a doctoral degree knows that the post-coursework process is a lonely one. Hours are spent developing ideas, crafting and enacting a research plan, then writing up the outcomes. While the work is the online doctoral candidate's to do, the chair and committee play a large role in helping to make manifest that work. Serving candidates in online doctoral programs entails many of the same opportunities and challenges as serving candidates in programs that are offered in a traditional, face-to-face modality. However, in contrast with their brick-and-mortar peers, the online doctoral student has no common physical space in which to occupy and interact with faculty and others who are in the same stage of their dissertation. Online doctoral candidates who are past coursework essentially are tethered to their universities primarily by way of the relationships with their chairs, committees, and peers.

In many ways, the committee chair becomes the face of the learning context for the doctoral candidate. This editorial article focuses on the dissertation phase of online doctoral candidates' studies and the ways in which chairs and committee members can understand, frame, and most effectively guide their candidates through that phase by understanding theories and models relevant to working with adults who are destined to become not just graduates, but professional peers.

Considerations for Working with Online Doctoral Candidates

During coursework, online students have each other: they are by default a cohort of learners moving through a learning experience together. They go to class by visiting an online courseroom where they interact with each other, the content, and the faculty member. They are connected by default to a community of learners and the university while taking courses. If the institution provides an online courseroom for doctoral students and chairs to work in, the faculty interaction in that courseroom typically is focused on the administrative elements of the program and on documenting progress toward graduation. Interacting with peers in these administrative tracking courserooms is encouraged, but it is rarely mandatory. Because it is a courseroom, candidates may not use this space to foster more personal relationships. And, given the depth of focus that doctoral students need and the degree of immersion in their chosen research topics along with the differences in their stages of completion, online doctoral candidates simply may not consider each other as integral parts of their individual processes.

Faculty are often asked, or expected, to help candidates overcome the obstacles that come with the dissertation phase and to help them build the peer network they need for success. Theory and practice can inform the faculty's process as they guide their candidates through the dissertation process. Facets of working with adults online in dissertation programs that faculty should be aware of include theories of andragogy, motivation, cognitive apprenticeship, and communities of practice. Further, the ideas and best practices around both informal learning and mentoring can play key roles in understanding the relationship and meeting the needs of online doctoral candidates. A brief overview of these six facets is followed by a discussion that explores how they can be applied to committee service.

Andragogy

Andragogy, simply put, is the theory of how adults learn. It is distinguished from pedagogy primarily because of its focus on fully developed learners versus ones who are not only expanding their knowledge base but also undergoing physical and cognitive developmental changes. Knowles' (1990) androgogical model is based on six assumptions:

1. *The need to know:* adults need to understand why they need to absorb what is being taught;
2. *The learners' self-concept:* adults need to be in control and be self-directed;
3. *The role of the learners' experiences:* adults need to position current learning within their past learning experiences and current knowledge base;
4. *Readiness to learn:* adults not only need to know why they should learn something, but what they are learning should align with their current situations;
5. *Orientation to learning:* adults need to connect what they are learning to tangible reality; and
6. *Motivation:* adults are more intrinsically motivated than they are extrinsically motivated.

Since adult learners are engaged participants in their learning processes, doctoral chairs and

committee members need to understand how these differences impact their mentoring of adults.

Just because adult learners are more engaged in terms of ownership over their learning, this may not translate to self-efficacy. Self-efficacy is defined by Bandura (1982) as the belief in one's own abilities to accomplish a task. Adult learners are often experts in their professional and personal lives. This degree of expertise juxtaposed with the inevitable feelings of insecurity that embarking on a journey into unfamiliar territory like writing a dissertation can elicit often results in feelings of low self-efficacy. That is, while doctoral students might be intrinsically motivated in terms of their orientation to their learning, they can still need their confidence bolstered. Bandura (1997) further highlights the following four areas on which one's self-efficacy depends: mastery experiences, vicarious experiences, verbal persuasion, and psychological state. The doctoral chair and committee are not in full control of any of these areas – particularly the last one – but they can still have some influence on students' self-efficacy.

For example, chairs can help their online doctoral candidates realize that the mastery they experienced in the coursework part of their program may not translate into mastery in the dissertation phase. The shift from coursework to dissertation work is not easy, and online learners can stumble as they sort out the new way to function as doctoral candidates, learning about both their topics and the dissertation process simultaneously while producing the actual dissertation. Vicarious experiences can be particularly useful in the dissertation phase; these experiences can be with their current peers,

others who are working on the same or similar degrees in the same online setting, or with a chair's past graduates by way of reading completed dissertations. Through awareness of those who have succeeded under a chair's guidance, current online doctoral candidates can be helped to envision their own success. Verbal persuasion seems obvious – be encouraging. But, it is not just limited to statements of encouragement. Bandura (1997) cautions that negative input can have a greater impact on lowering self-efficacy than positive input can on increasing it. Chairs must be careful to maintain a positive affect so that they are not eroding their candidates' self-efficacy while still providing useful feedback that helps move their candidates toward completion.

Acknowledging that adults learn differently is key to working with doctoral candidates, but this awareness must also extend to an understanding that ownership and engagement does not place the onus solely on the candidate to self-propel through the processes involved in crafting a dissertation. Bain, Fedynich, and Knight (2011) found in their study of graduate students that graduate students believe increased self-esteem related to success in their graduate studies is one of the most important factors in their overall academic success. One's sense of self-efficacy can only emerge from within, but the chair and committee can create a learning environment that promotes it. The chair and committee must work within the androgogical model to support and help grow their candidates' sense of self-efficacy while simultaneously guiding them through the stages of dissertation development.

Motivation

Theories and models of motivation are wide-ranging and exist to provide lenses through which we can understand and influence human behavior. Most people are at least superficially acquainted with Maslow's (1943, 1970) hierarchy of needs, which began with five layers but now has eight. This model is grounded in needs-based motivation theory; that is, people are motivated to fulfill successive layers of personal needs. For Maslow, these needs are related to each other, as depicted by a triangle with the basic and broadest needs at the bottom and the more lofty needs at the top. The eight stages of his model are biological and psychological needs, safety needs, social needs, esteem needs, cognitive needs, aesthetic needs, self-actualization needs, and finally transcendence needs (Maslow, 1970). Of note here is that according to Maslow, one cannot progress to a higher-order need if one's lower-order needs are not met; thus, the online doctoral candidate who has social or esteem needs that are not being met will not be able to progress into the cognitive, aesthetic, self-actualization, or transcendence stages.

Hanley and Abell (2002) offer a revision of Maslow's models, one that eschews the triangle and instead focuses on concentric circles of interpersonal and environmental connectivity: "Where Maslow focused on the benefits of creative expression to the individual, our model views the full potential of artistic expression as a manifestation of the relationships between individuals" (p. 55). While a dissertation is not commonly thought of as a creative expression, it is in many ways just that. Harkening back to Aristotle and Cicero, invention is an act of

creativity where the writer – or orator in ancient times – starts with nothing but an intention and develops the most persuasive argument based on the circumstances surrounding the rhetorical situation. Similarly, the dissertation student must identify and articulate a problem statement then engage in scholarly argumentation that is thesis-driven and fact-based by way of their literature review, research study, analysis, and discussion.

Practically speaking, a chair needs to be able to help foster motivation. Keller's (1987) ARCS model offers one way to design motivation into instruction. The acronym stands for attention (get the learner's attention), relevance (communicate the relevance of the material to the learner and her goals), confidence (build the learner's confidence as they develop mastery), and satisfaction (create opportunities for the learner to mark successes); the model has been successful in online environments as well as traditional ones (Keller 1987, 1998; Keller & Suzuki, 2003). In essence, the model offers instructional designers a way to best incorporate motivation into any course or lesson regardless of content. In the case of chairs and committee members working with their online candidates, the four arms of the ARCS model offers a clear framework to help guide interactions. Feedback, for example, is one of the primary places where direct instruction is enacted by the chair and committee. Crafting that feedback with an understanding of the ARCS model could make the feedback more readily internalized then applied by the candidate.

Moving from the level of feedback to a longer view of motivation, chairs and committees should also consider Miller and Brickman's (2004) model of future-oriented motivation and self-regulation,

which links proximal goals to distal ones. That is, they propose that far-off goals are the incentive for the establishment, management, and enactment of sub-goals that make up the steps along the way to obtaining that far-off goal. Their model is based in social cognitive theory and considers the role that influencing social constructs – like one's family and one's values, for example – play in goal setting and attainment. Further, they point out that just having a far-off goal does not mean that the sub-goals are readily apparent. Thus, an online doctoral candidate might be highly motivated to obtain a doctorate degree – a distal goal – but might not effectively identify and manage the sub-goals needed to get there. While the university often scaffolds that process, relating what seems like administrative or bureaucratic requirements to the process of conceiving of and developing a dissertation can be challenging for candidates. Chairs and committees can help with both processes – ticking off the steps and relating those steps to a candidate's personal journey toward graduation.

Cognitive Apprenticeship

Cognitive apprenticeship is an appropriate way to frame the chair-candidate relationship as chairs are guiding their future colleagues to full rank, just as the master blacksmith guides her apprentice through journeyman and finally to becoming a master in her own right. Cognitive apprenticeship is defined by Collins, Brown, and Newman (1989) as "learning through guided experience on cognitive and metacognitive, rather than physical, skills and processes" (p. 456). It takes the traditional, trade-based apprenticeship model into the cognitive realm where learners are observing, practicing, and reflecting while the

expert, or teacher, enacts the following strategies, inviting the learner to participate where appropriate:

1. *Modeling:* externalizing thinking and thought processes
2. *Coaching:* supporting the learner's cognitive activities
3. *Reflection:* assessing one's own actions and refining them
4. *Articulation:* sharing that refinement with the learner
5. *Exploration:* problem solving

Chairs and committees with an understanding of a cognitive apprenticeship model can approach their dissertation service work differently to the way they approach working in the classroom; although, a cognitive apprenticeship model could benefit them and their learners there as well.

In a review of empirical research around cognitive apprenticeship and computer-mediated instruction, Dennen and Burner (2009) discovered (1) that the cognitive apprenticeship model is an accurate description of how learning occurs naturally as part of everyday life and social interactions and (2) that the instructional strategies that have been extracted from these observations of everyday life can be designed into more formal learning contexts with positive effect (p. 50).

This cognitive apprenticeship approach requires conceiving of candidates as peers on a continuum. Invoking Vygotsky's (1978) theory of the Zone of Proximal Development (ZPD), the candidate is the peer stretching to embrace a new skill as it is demonstrated by a more experienced peer: the faculty member. Framing the faculty-candidate relationship in this way helps create

space for the human relationship that is at the core of the cognitive apprenticeship model.

In the computer-mediated environment in which online candidates and their chairs are working, fostering an apprenticeship model can be difficult. But this relationship is critical because the information being imparted relies on more than direct instruction; the relationship between the expert and novice is as important as the information. Ways to build this relationship traditionally are to bring doctoral candidates into teaching, research, and publishing activities. These opportunities – particularly the first two – may not exist for, nor be desirable to, online doctoral candidates. Add to this that in many online programs, chairs are assigned to committees versus being sought after by candidates, so building the core relationship needed for a cognitive apprenticeship model seems like an insurmountable goal.

Co-publishing does offer one avenue for chairs to build an apprenticeship relationship with candidates. Chairs could consider identifying the development of a publication as an optional tertiary distal goal at the onset of the committee service then they could establish a working relationship with both goals in mind. This expanded working dynamic could provide a context for the faculty member to function as the more experienced peer more explicitly. The candidates have to see themselves as the less experienced peers if they ever are to see themselves as colleagues, not as pupils.

Communities of Practice

Learning communities and communities of practice – these are both fairly commonly used terms to refer to efforts at organizations to foster an environment of peer-to-peer learning for the betterment of the organization and the individuals. Communities of practice are groups of people who are engaged with each other using specialized language while in pursuit of similar activities (Wenger, 1998; Wenger et al., 2002). Wenger (1998) identifies three key elements and five roles that give shape to a community of practice. Members share a (1) mutual engagement, are involved in a (2) joint enterprise, and rely on a (3) shared repertoire, and membership can take the form of one of the following roles – often characterized as trajectories to reflect the fluidity inherent in a community of practice

1. *Peripheral* – not a full-fledged member but someone who takes part in community activities;
2. *Inbound* – someone who is becoming a member of the community;
3. *Insider* – a full-fledged member of the community;
4. *Boundary* – a specialist who is peripheral but is also given the accord of a full member; and
5. *Outbound* – someone who is leaving the community (Wenger, 1998).

Membership involves enacting different roles over time, and a person can be a member of overlapping communities, occupying a different role in each. Holley and Caldwell (2012) highlight the benefits of an interdisciplinary approach to peer-to-peer networking along with the programmatic and chair-centered ones.

Attempts by organizations to manufacture these communities are relatively new, but these types of social groups are common to human experience. Upon closer inspection, the invisible

boundaries of a community of practice and the virtual ties that bind online doctoral candidates, their committees, and their institutions together are not so different. The online doctoral candidate's trajectory through the dissertation phase in many ways mimics the sequence of entrance, inhabitation, and departure any member of any community of practice experiences. For the candidate, the community's boundaries are defined by her university and program, her chair and committee, and her peers.

Findings from their own study reinforce what Bain, Fedynich, and Knight (2011) found in the literature: a feeling of connectedness is important for graduate students and should be addressed by the institution as well as by the student. They define features of connectedness as relationships with peers, faculty, departmental environment, and the administrative aspects of the graduate program. As with most of the models and concepts discussed in this editorial, faculty can only influence, not control, a candidate's feelings of connectedness. Fostering a community of practice amongst the candidates whom a faculty member serves is one way she can attempt to make manifest that feeling of connectedness.

Depending on the policies of and technologies provided by the institution, faculty members can tap into social media tools and synchronous meeting technologies to provide a structure in which connections between their candidates can begin to take shape. True human connection cannot be scripted or mandated; so in lieu of – or at least in addition to – formally structured interactions, the foci for these spaces should include opportunities for candidates to reflect and explore both their academic and personal

experiences. More like an effective study group than a purely social one, an intentionally created community of practice could function to provide motivational support and opportunities to bolster candidates' self-efficacy.

Informal Learning

Informal learning is a topic often reserved for discussions about the workplace, but chairs and committee members serving online doctoral candidates may benefit from a deeper understanding of informal learning. Placing learning on a continuum from informal to formal, Eraut (2004) characterizes informal learning as "implicit, unintended, opportunistic and unstructured learning and the absence of a teacher"; he places mentoring somewhere in the middle and locates coaching at the formal end (p. 250).

In a discussion of the role social networking technologies have in workplace informal learning and professional development, Burner (2012) notes that institutional support for informal learning could be on the rise given the ease with which social networking technologies can be incorporated. In their study exploring a cross-disciplinary, formal mentoring program that involved faculty, peer mentors, and doctoral students in a face-to-face environment, Holley and Caldwell (2012) noted that an unanticipated benefit that participants pointed out was the transfer of information from program participants to non-participants from the participants' home departments. This scenario exemplifies the kinds of informal learning that can happen in graduate programs. Much like communities of practice, informal learning can be promoted by institutions. For example, an undergraduate environmental

education program successfully coupled formal and informal educational opportunities in an attempt to reinforce the curriculum in and out of the classroom (Hopkinson, Hughes, & Layer, 2008).

For the chair and committee working with the online doctoral candidate, informal learning can help make manifest features of the androgogical and cognitive apprenticeship models, particularly if the chair or institution provides technologies that can support a community of practice approach to interpersonal interactions between the candidates themselves. Frequently, online candidates only interact in formal ways with their chairs and committees, which not only reinforces the hierarchical structure of the instructor-student dyad, it offers little room for informal learning between faculty and candidates and no room for peer-to-peer learning.

Mentoring

What is a mentor? Depending on the setting, formal or informal, a mentor is either a chosen or an assigned individual with more experience who is tasked with elevating a less-experienced individual in a specific arena, typically one that is work or professionally related. The word "mentor" is used a lot in academia when referring to a candidate's chair. Often, the two words are used interchangeably. Chairs do act as mentors, but not in the same way as in the informal mentoring relationships found in the workplace. Clearly committee chairs are performing a job function, so their actions are not purely altruistic like an unpaid, volunteer professional mentor's might be.

In their discussion of building mentoring relationships between surgeons, Sanfey, Hollands, and Gantt (2013) point out that a workplace mentor should be ahead of the mentee by at least two years, should have a wide social network, should be altruistic, and that the mentee should have a clear goal for enlisting the mentor's help. The success of this typically long-term relationship relies on both parties being fully vested. In their study of non-academic e-mentoring, de Janasz and Godshalk (2013) found that the frequency of interaction was significantly related to greater career development and psychosocial support; that is, the more often and regular the interaction, the bigger the benefit to the mentee. While these authors were not specifically addressing the academic chair-candidate relationship, their results can inform that relationship, particularly when that relationship is framed by the cognitive apprenticeship model.

Directly addressing the chair-candidate relationship, Fedynich and Bain (2011) suggest five essential dynamics for quality mentoring in an academic setting:

1. Faculty must *exhibit genuineness*
2. Faculty must *be knowledgeable about the program*
3. Faculty must *create a climate of trust*
4. Faculty must *create a climate of connectedness*
5. Faculty must *be willing to exhibit, demonstrate, and model personal and professional ethics* (p. 4)

In an online environment, these dynamics pose challenges that differ from the face-to-face one. Encouragingly, de Janasz and Godshalk (2013) suggest that the corpus of anecdotal and empirical evidence shows parity between e-mentoring and traditional face-to-face mentoring. This means

that computer-mediated (e-mentoring) relationships can have the same impact that face-to-face ones have. The key is figuring out the best modality for the candidate and committee.

Guiding Online Doctoral Candidates

Applying the ideas of andragogy, motivation, cognitive apprenticeship, communities of practice, informal learning, and mentoring to dissertation service can help faculty members in their committee service. How to make that happen? What follows are some suggestions drawn from the literature and based on anecdotal experiences.

The first two acts a faculty member should undertake are not dependent on any one type of learning environment. Faculty should start by conceiving of candidates not as students in the traditional sense, where information is transferred from the expert to the novice. Instead, candidates could be thought of as postulants: people who are just on the outside and about to join an organization or group. By reframing how they see candidates, faculty can orient themselves to the idea of being on a continuum with candidates. Developing a cognitive apprenticeship dynamic depends on the notion that the primary difference between two people is experience and knowledge, a gap that can be closed with careful guidance.

The next act faculty should undertake in pursuit of applying this nexus of theoretical and practical information is also conceptual: seeing oneself as being a more-experienced peer in a dynamic relationship with another human being. This requires harkening back to one of the three ancient inscriptions at the temple at Delphi: know thyself. The faculty member's personality, personal communication, and leadership style play a big role in how their relationships with others are enacted. Faculty who have a keen understanding of their own styles can apply that understanding to developing these relationships.

This reconceived faculty-candidate relationship relies on both parties trusting each other enough to give and receive information. In an online environment, establishing this level of mutual trust can be challenging. Social media and synchronous technologies can be used to lessen these challenges, but using them has to be approached carefully. Institutional and federal privacy policies need to be in the forefront of any endeavor that involves candidates. In general, as long as faculty do not breach the privacy line by discussing grades or graded work in a public setting, using social media or Web 2.0 technologies is acceptable practice.

A practical step that faculty can take is to use a blog or Facebook group to create a space to interact with candidates and for candidates to interact with each other asynchronously. Web conferencing tools that include video conferencing are available for free or low cost on the internet and are fast becoming standard features of learning management systems, such as Blackboard's Collaborate feature. Being able to see each other can help bridge the distance and can build the kind of trust one experiences in face-to-face interactions. Faculty can use these tools to host research group meetings amongst their candidates, and candidates can use them independent of faculty to interact with each other. Web 2.0 technologies do not hold all of the solutions for the problems around building relationships at a distance, but they offer up a lot

more possibilities than technologically based communication has in the past.

Conclusion

Developing the mindset and creating the space for a more collaborative, collective approach to the dissertation experience is a good beginning. Faculty can attempt to create a strong mentoring relationship with the candidates they are serving by applying these ideas to their practice. As they develop these novices, faculty guide them toward graduation, the point at which they will become members of the academy or, if not going the academic route, members of the rank of people holding doctorate degrees. In the US, according to the 2013 census data, that number is 1.7% of the total population, a small section of the larger population.

Although she was focusing on course design, online doctoral faculty and program directors would benefit from heeding Winterwood's (2010) recommendation that online courses leverage the computer-mediated informal learning practices that online students already employ. With the growing popularity of social media and synchronous communication technologies both in an out of the online courseroom, interactions between faculty and candidates working at a distance can mimic the best of a face-to-face environment and capitalize on the inherent strengths of distance learning.

What is needed most, however, is research into the practices of online faculty as they serve on committees. Work like that done by Holley and Caldwell (2012) can inform the development of mentoring programs, and drawing from traditional face-to-face models is a wise beginning. But as online learning environments differ in key ways – both for faculty and candidates – online doctoral programs should formally investigate what works and what does not, with the goal of developing a data-driven and systematic approach to fostering the best committee-candidate experience possible.

However they choose to do it, chairs are mentoring their future colleagues, ones with whom many continue to have relationships. These relationships often involve ongoing professional or career mentoring once the dissertation process is completed. That relationship can fade over time as it becomes more informal and less beneficial, but some chairs remain lifelong mentors and are part of a newly minted academics' approach to career and professional development – and this typically happens at a distance. It is worthwhile to remember that how candidates are mentored informs how they will in turn mentor their own protégées. The relationship is at the heart of the process.

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