
Academic Advising and Online Doctoral Student Persistence From Coursework to Independent Research

Todd D. Fiore

Ashford University
toddfiore@msn.com

Keri L. Heitner

All Aspects Research
keri.heitner@gmail.com

Melanie Shaw

Ashford University
melanie.shaw@faculty.ashford.edu

Abstract

Approximately 50% of doctoral students do not complete their degrees. Attrition for online doctoral programs is 10% to 20% higher than traditional programs. This study's purpose was to understand online doctoral students' perceptions about the role of academic advisement in transitioning from coursework to independent research. Semi-structured interviews with 18 participants revealed six major themes pertaining to advising's role on persistence, the efficacy of advising, and potential improvements to advising. The major themes identified within and across three cases are: faculty advising is paramount, lack of process advisement, inconsistent advisement, peer advising is powerful, persistence comes from within, and doctoral research feels lonely. Further research is needed about online doctoral students' experience, particularly with respect to transitioning from coursework to independent research.

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Student attrition is a problem for both institutions and students at all levels of higher education, but it is especially troubling for doctoral students (Council of Graduate Schools, 2017; Terrell, Lohle, & Kennedy, 2016). Approximately 40% to 60% of doctoral students fail to complete their degrees, and this number has remained fairly constant since the early 1990s (Bowen & Rudenstine, 1992; Council of Graduate Schools, 2008; Golde & Dore, 2001; Terrell et al., 2016). Online doctoral students are at a higher risk of degree non-completion than students in traditional programs (Cross, 2014). The proliferation of online doctoral programs makes research into meeting the unique needs of online doctoral students timely and necessary (Ames, Berman, & Casteel, 2018).

Researchers have consistently shown a connection between the role of student advisors and student persistence (Drake, 2011; Tinto, 1993, 2012; Vianden, 2016). This connection is consistent with other studies that have shown that poor or ineffective advising contributes to attrition of doctoral students (Council of Graduate Schools, 2010; Craft, Augustine-Shaw, Fairbanks, & Adams-Wright, 2016). For doctoral students at the research stage, challenges with advisors can lead to lack of persistence (Locke & Boyle, 2016). The current study focused on the advisement online doctoral students receive as they transitioned from coursework to research-based doctoral study, and their perceptions about the role of academic advisement in their persistence.

Conceptual Framework

The National Science Foundation (2017) reported there were more than 55,000 doctoral degrees awarded by institutions in the United States in 2015. The National Center for Education Statistics (NCES) report on Fall 2015 enrollment showed 26% of post-baccalaureate students were exclusively participating in distance education courses versus 12% of undergraduate students (U.S. Department of Education, 2017). A subsequent NCES report revealed 3 million full-time and part-time post-baccalaureate students were enrolled in Fall 2016 (U.S. Department of Education, 2017).

The exact number of students pursuing an online doctoral degree in the United States is difficult to ascertain since the NCES does not differentiate between types of post-baccalaureate students, which means that available data included combined master's, doctoral, law, medicine, and dentistry students (U.S. Department of Education, 2017). Other researchers have reported more than 1 million students pursuing graduate-level degrees online in 2017 (Seaman et al., 2018). Most evidence points to an overall increase in the demand for online doctoral programs (Fuller, Risner, Lowder, Hart, & Bachenheimer, 2014).

Institutional and Individual Student Persistence

Institutional stakeholders often use student persistence rates to assess institutional effectiveness because decreasing student attrition leads to a range of beneficial outcomes (Tinto, 2017). High student attrition, particularly at online universities, can result in lost revenue and prestige for a school (Lovitts, 2001; Rockinson-Szapkiw, Spaulding, & Bade, 2014). Researchers have considered the impact on student retention and persistence of institutional initiatives such as learning communities, orientation courses, first-year seminars, curriculum design, and strategic expenditures (Gansemer-Topf, 2013).

Tinto (2017) described student persistence as an active form of a student's motivation that is shaped by the key dimensions of self-efficacy, sense of belonging, and the perceived value of the curriculum. These dimensions are not related to the institution but are unique to individual students. Other researchers examined how student persistence rates are affected by characteristics of individual students, including demographic, academic, and situational factors, and which may indicate a higher or lower risk not to complete (Markle, 2015).

Online Doctoral Student Persistence and the ABD Phenomenon

The persistence of online doctoral students is not as well understood as the persistence of traditional doctoral students (Rockinson-Szapkiw, Spaulding, & Spaulding, 2016). Attrition for limited-residency and online doctoral programs is 10% to 20% higher compared to traditional programs (Terrell et al., 2016). Rockinson-Szapkiw et al. (2016) used Tinto (1975, 1993) and Bean and Metzler's (1985) seminal works on student attrition as a framework to develop an online doctoral persistence model that indicates online doctoral persistence is promoted by: (a) specific support services (e.g., advisors, librarians, writing coaches, and methodologists); (b) academic integration through strategic curriculum and instruction; (c) social integration with faculty; and (d) familial integration.

High attrition rates among doctoral students have resulted in students who have completed the required coursework for their doctoral program but who have not completed their required research-based doctoral study project, and these students are often referred to as all-but-dissertation (ABD) students (Locke & Boyle, 2016). The exact number of ABD students is unknown; however, the ABD phenomenon is a relevant framework since approximately 50% of all doctoral students do not complete their degrees (Terrell et al., 2016). For ABD students, the failure to complete their studies can result in personal, professional, and financial loss for the student (Council of Graduate Schools, 2017; Devos et al., 2017; Gomez, 2013).

Advising Online Doctoral Students

Experiences with advisors influence doctoral students' attitudes about their doctoral program and affect their progression (Barnes, Williams, & Archer, 2010). Doctoral students often feel isolated and look to their advisors for support beyond research supervision (Duke & Denicolo, 2017). The more interactions traditional doctoral students have with their advisors the more likely they are to progress through their programs (Girves & Wemmerus, 1988).

Advising practices for online doctoral students are unique and less well understood than for traditional campus doctoral students (Deshpande, 2017). Online students have support needs that differ from campus students, and the effectiveness of advising sessions is important (Britto & Rush, 2013). Advisors should provide positive support for online doctoral students due to limited social and face-to-face contact experienced in an online learning environment (Deshpande, 2017).

Advising Students in Transition

Transitioning from one level of study to another is challenging for students (Frischmann & Moor, 2017). Moving from coursework to independent research is a crucial transition for doctoral students (Baker et al., 2013; Lovitts, 2005, 2008). Doctoral students often feel unprepared to make the transition into independent research (Lovitts, 2001). Online doctoral students do not perceive they receive adequate advisement about the transition from graduate coursework to the research-based phase of their doctoral program, resulting in lack of persistence (King & Williams, 2014; Mullen, Fish, & Hutinger, 2010).

Method

The purpose of this qualitative exploratory multiple-case study was to understand online doctoral students' perceptions of the role of academic advising on their persistence as they transition from coursework to research in

doctoral study. The study was designed to gain online doctoral students' perceptions of the nature and efficacy of advisement they received during the coursework phase of their online doctoral program in preparing them for research-based study, and how they perceive this affects their persistence.

A case study design is appropriate when contextual conditions are relevant to the phenomenon under study (Yin, 2014). Using the multiple-case design allows for the examination of outcomes which might be affected by different environments and to help form more general categories of how specific conditions might be related (Chmiliar, 2010). Data derived from multiple cases can provide greater confidence in a study's findings (Yin, 2012). Acquiring information from multiple sources also may lead to other data sources not previously considered (Harder, 2010).

An exploratory case design allows illustrating through a case an in-depth analytical study of critical issues related to a phenomenon and provides a means to define questions and hypotheses for future studies (Yin, 2014). Exploratory case studies are used to investigate distinct phenomenon when there is limited detailed preliminary research about the phenomenon, when there is a lack of detailed hypotheses that can be tested, or when a specific research environment limits the choice of methodology (Streb, 2010). Although the research environment did not limit the choice of methodology for the current study, there is limited published peer-reviewed literature about students' perceptions of advisement on making the transition from coursework to research-based doctoral study. There are also no existing detailed hypotheses that can be tested about this phenomenon. An exploratory multiple case study design was therefore an appropriate research design for the current study.

According to Yin (2014), researchers of multiple-case studies use replication logic as opposed to sampling logic. For the current study, the multiple cases consisted of three unique groups of online doctoral students, and the scope was limited to ABD students who were currently enrolled in an online doctoral program, online ABD students who completed their coursework within the past five years but were no longer enrolled in an online doctoral program, and students who had graduated from an online doctoral program in the past five years.

Purposive sampling techniques identified individuals knowledgeable and experienced with making the transition from coursework to independent research in an online doctoral program. Recruitment focused on identifying participants through social media and snowball sampling who could be grouped into one of three distinct groups based upon their progression in an online doctoral program. Following a self-selection process that ensured voluntary participation, 18 online doctoral students and graduates were interviewed. Six of the participants were ABD students enrolled in an online doctoral program at the time of their interview (33%), five of the participants were ABD students not enrolled in an online doctoral program at the time of the interview (28%), and seven of the participants were recent graduates of an online doctoral program (39%). Sample sizes provided sufficiently rich data to achieve saturation in each case. Participants included five men (28%) and 13 women (72%). Eight participants identified as white (44%) and 10 as non-white (56.6%). Participants' ages ranged from under 45 years of age (27.8%), age 45-54 (33.3%), and over 55 years of age (38.9%). The most popular fields of doctoral study for the sample were education (39%) and psychology (28%).

To enhance confidentiality, participants were not specifically asked to identify their graduate institution. Thus, a full description of the schools in the sample was not possible. However, unsolicited 13 of the 18 participants voluntarily disclosed their institution of study during their interview. Such voluntary disclosures revealed seven different Universities, including both public and private institutions. None of the participants were students of the researchers.

Data Collection and Analysis

Individual semi-structured phone interviews provided the primary data for the current study. Each participant gave informed consent and willingly and thoughtfully answered all questions that were asked from an interview script. Asking multiple follow-up questions and changing the order of the questions to follow logical streams of thought during each interview provided additional context and generated thick and rich data.

Units of analysis were the three groups of students that made up each case, as well as the data obtained from participant interviews. All interviews were digitally recorded, transcribed, and analyzed. Each participant had the opportunity to member-check a copy of a transcript of his or her interview in order to provide edits, comments, or additions to the data. General descriptors of themes and patterns from the interview data were identified, coded and examined within and across the three cases to triangulate the findings from the data.

Findings

Six main themes emerged from the data collected from participant interviews: (a) faculty advising is paramount, (b)

lack of process advisement, (c) inconsistent advisement, (d) peer advising is powerful, (e) persistence comes from within, and (f) doctoral research feels lonely. The first three of these themes were among the top five themes for each case in the study.

Theme 1: Faculty Advising is Paramount

The importance of faculty advising was the most often cited theme across all three cases. The 18 participant interviews revealed 157 instances of how faculty advisement influenced the persistence and preparation of participants in making the transition from coursework to independent research. Interactions with a chairperson was the most common instance of faculty advising mentioned. In addition to their chair, participants also identified coursework faculty, committee members, faculty met at in-person residences, and faculty working at other institutions as important advisors.

Reasons given by participants across all cases for why they considered faculty advising to be important included the advisor's experience in guiding students through the research process, the quality of feedback given by the faculty advisor, and the power faculty advisors had to approve or disapprove of a student's work. Another reason noted by multiple participants was the general high regard that faculty were held by online doctoral students. A female graduate summed this up best when she said:

From my perspective, (faculty advisors) were up on these pedestals and I was grateful to have their time and their input. And I would never ask for anything more than what I thought that was appropriate... but I felt like in 20 minutes of talking to this person, the information was more valuable than any other I'd ever received.

Participants across all cases commonly referred to faculty expertise. Participants considered faculty to be unquestioned experts, especially for all advising related to independent research. Answering questions related to the research process, preparing for and dealing with the transition into independent research, helping students identify an appropriate topic, providing access to resources students found helpful to their study, and providing feedback on scholarly writing were areas in which participants relied heavily on a faculty advisor's expertise.

Several participants specifically mentioned how a faculty advisor influenced their persistence. For example, a male graduate stated simply that, "I can tell you right now that if it wasn't for my (faculty advisor) I would not have graduated." Other ABD enrolled and graduate participants described how the personal relationship they developed with their faculty advisor(s) helped them to persist by assuaging their feelings of vulnerability and loneliness, which is another major theme addressed below. Two ABDs no longer enrolled identified a poor relationship with their chair as a reason they did not persist. However, the majority of participants across all cases described the advisement they received from faculty as having a positive influence on their persistence.

Advisors need authority. A subtheme within the importance of faculty advising is that online doctoral students perceive the value of the advisement they receive to be more substantial when given by people who have positions of authority within the institution. Participants across all cases generally afforded their chairperson a level of authority above other advisors and staff at their school. Participants also identified interactions with deans, associate deans, lead faculty, and directors to be valuable.

Academic advisors lack credibility. Participants across all cases identified that their academic advisors lacked credibility due to not having had experience doing research themselves, not being competent about the research process and school policies, and to being perceived as not having the students' best interests in mind. ABD no longer enrolled and graduate participants also reported that interactions with their academic advisors were more likely to be transactional or generic in nature.

Theme 2: Lack of Process Advisement

Participants across all three cases expressed frustration with the lack of advising they received about the independent research process prior to making the transition from coursework. Seventeen of the 18 participants referred in their interviews to a lack of advisement about the research process. Improving advisement about the independent research process was also the most common recommendation that participants gave when asked about potential improvements to the advising process.

The word "daunting" was mentioned several times in relationship to the independent research process. Participants across all cases reported high levels of confusion about the steps they needed to take and where to find information about what to expect. Not knowing where to start in developing a research topic, wishing they had been taught about the process sooner so coursework content and resources could be saved for their independent research, and being unprepared for the shock of being in a class of one with their chair were common areas participants perceived a lack of adequate advising prior to making the transition from coursework to independent research.

Many participants identified academic advisors' lack of expertise about the process due to having no experience of their own as a doctoral student as a reason for students not getting the guidance they wanted. Participants reported that resources such as handbooks were not readily available or were not referred to until after students were already in the independent research phase. The participants indicated that other students and colleagues often become the primary individuals that online doctoral students relied on for information because they felt they did not get adequate advisement from university employees.

Participants across all cases also reported wanting specific instruction about the process. As a current ABD enrolled student noted, "Programs give you resources, but that doesn't do it! Because that's not instruction. Knowing what you need to apply is very specific." Faculty advisors' unwillingness to provide guidance about the process at the point of transition adds to this frustration. Participants also described wanting to be taught why the independent research process is designed the way it is and to be given more realistic timeframes for how and when they should be achieving progression milestones in their program.

Theme 3: Inconsistent Advisement

Participants across all cases perceived their advisement to be inconsistent. It was not unusual for participants to recount how they received different answers to the same question posed to different advisors. The interview responses included frequent comments expressing confusion and frustration created by the lack of consistency in the advisement that students received.

Lack of response and delays in receiving feedback were reasons given for seeking feedback from other advisors. Not receiving an immediate response directed to an assigned academic advisor prompted some participants to call general advising phone numbers, only to find the advisement they received by doing so was incorrect or differed substantially from the advisement they received once their assigned advisor eventually responded to their initial inquiry.

Some ABD no longer enrolled and graduate participants identified turnover of their advisors, chairs, and committee members as a reason for receiving inconsistent advising. Thirty-nine percent of all participants reported that their academic advisors had changed at some point during their program, 22% had different chairpersons than whom they started with, and 11% experienced changes in their committees. Of the 11 unique participants reporting an advisor change, only two indicated they had advance notice of the change, while three others said they received no communication at all about the change. Advisement from the new advisor invariably differed from the advisement the previous advisor gave, and in one case the differences in advisement caused one graduate participant to take a nine-month break in her program.

Participants also commonly referred to inconsistent advisement from different faculty members as a source of frustration. One ABD enrolled student recalled an experience at an in-person residence where three faculty members gave three different opinions about her research topic ideas. She expressed her frustration by saying:

You're trying to figure out what's going on. You don't know your topic. You don't know what type of paper you're supposed to write. You don't know where to begin. So, you ask different faculty – who are supposed to have the answers, right? I guess I was looking for one right answer and there was no one right answer. They all told me different things.

Theme 4: Peer Advising is Powerful

Participants across all three cases perceived advisement from other students and colleagues to have a high degree of influence on both their persistence and their progression through their program. Participants repeatedly noted that relationships that were formed with peers at in-person residences, from being part of the same cohort, and/or in online social media forums were essential to both their social and academic integration with their online doctoral program. Examples of peer advisement found in the interview responses included giving each other encouragement, gaining an understanding of the research process, soliciting feedback, and relying on an available resource when unable to contact their assigned advisors.

Participants across all cases also pointed to benchmarking as another powerful outcome received from peer advising. Participants reported that being able to compare their own progress and the quality of their own work to other students was helpful in easing their anxiety. As one ABD enrolled student noted:

As I joined these Facebook groups, I was able to kind of hear the pros and the cons of other students' situations. You know the unfortunate stories...the really exciting stories of what it was like. And so these things came out and they were very, very helpful. It made me realize I was doing okay.

Other participant responses noted that having other students who were further ahead in their program report their progress was inspiring and provided incentive to persist.

Theme 5: Persistence Comes from Within

Participants consistently reported that their own drive and internal motivation had a much stronger influence on their persistence than advising did. Interview responses to questions about how advising influenced participants' persistence regularly included terms like *driven*, *self-propelled*, *passion*, and *self-motivated*. This was seen across all cases but was especially prevalent among graduates, as six of the seven (83%) graduate participants attributed their persistence to themselves. Even two ABD no longer enrolled students considered their failure to persist to be their own responsibility that no advising could have influenced.

Perceived efficacy of advisement did not appear to be a factor in participants' perceptions about their persistence. For example, both a graduate student who perceived a lack of support from her advisors and an ABD no longer enrolled student who spoke effusively about the quality of her advisement considered their persistence (or lack thereof) to be their own responsibility. Participants referred to their advisors as "cheerleaders" and thought of them as helpful resources, but ultimately attributed their persistence to their own passion, drive, and self-motivation.

Participants who indicated their advisor positively influenced their persistence also acknowledged the idea that persistence comes from within. A male graduate who gave a great deal of credit for his completion to his mentor also noted that "the work was my own." Another ABD enrolled student who felt "lucky" to have a qualified chairperson to "push along" her progress also said her persistence was the result of being a "self-guided learner." Similarly, a male graduate who stated that having advisors who were more experienced repeatedly telling him he was becoming an expert on his topic made him want to continue also strongly advocated for being responsible for his own persistence.

Theme 6: Doctoral Research Feels Lonely

Participants across all three cases reported not being prepared for the feelings of loneliness they experienced in their independent research phase. The interview responses included descriptions such as "isolation," "totally on your own," "just yourself," and "abandoned" to describe their doctoral research experiences. One ABD enrolled student mentioned feeling "adrift at sea" to describe being on his own:

Well, I think the way I feel is where I think most people are, and it's like being adrift at sea. We've been pushed away from the shore. We're comfortable and doing well with the last three years or so, and then you transition and they say, 'Oh, okay, go out and sail the seas,' right? And it's like, 'Okay. I've never been out there, and I don't have the skill set to produce at the level that you need me to produce,' and I think that's where we are.

The one-on-one course structure during the doctoral research phase of a program accounted for the feelings of loneliness for some participants. Participants across all cases described being unprepared to be working only with faculty, not getting feedback as regularly as they did during the coursework phase, and not being able to compare notes with others because they were the only individuals working on their topic. Another female graduate singled out independent coursework as the hardest adjustment she had to make during her transition into doctoral research. Participants recommended advising on how to prepare for the independent nature of research study and acknowledging the difference once in the one-on-one environment as opportunities to improve advisement.

The ABD enrolled and graduate participants in particular made reference to feeling alone because they were insecure about their abilities. Participant feedback included comments about not feeling intelligent enough to do independent research, being overly sensitive about negative feedback from their chair, questioning the value of an online program versus a traditional campus program, and feeling they were incapable of working on the research problem they chose. Participants noted that these feelings were especially profound when they first started doing independent research because they did not feel comfortable sharing their thoughts with their advisors because they lacked close relationships with them.

Cross-Case Analysis

A cross-case analysis of the current study's data revealed findings that were common across all cases as well as themes that were unique to one or more cases. Analyzing concurring and contrasting themes in the data proved sufficient to address the central research question about current and former online doctoral students' perceptions of the role of academic advising on their persistence as they transition from coursework to research in doctoral study. Table 1 shows the top five themes for each case in terms of how prevalent each theme was mentioned by participants in each case. Three themes were common among the most prevalent themes for each case: (a) faculty advising is paramount; (b) lack of process advisement; and (c) persistence comes from within. The prevalence of these themes across all three cases provides evidence of triangulation of these data.

Table 1

Most Prevalent Themes for Each Case

| Case | Theme |
|-------------------------|--|
| ABDs still enrolled | <ul style="list-style-type: none"> - Faculty advising is paramount - Lack of process advisement - Academic advisors lack credibility - Inconsistent advisement - Persistence comes from within |
| ABDs no longer enrolled | <ul style="list-style-type: none"> - Lack of process advisement - Faculty advising is paramount - Persistence comes from within - Coursework content - Dissatisfaction with financial advisement |
| Graduates | <ul style="list-style-type: none"> - Faculty advising is paramount - Lack of process advisement - Persistence comes from within - Inconsistent advisement - Value of in-person residence experience |

Discussion

The current study added to the existing body of knowledge pertaining to online doctoral students' persistence, online doctoral advising, and online doctoral students' transition from coursework to independent research. The theme of persistence comes from within and doctoral research feels lonely represent individual persistence characteristics related to advising. The other four major themes—faculty advising is paramount, lack of process advisement, inconsistent advisement, and peer advising is powerful—reflect institutional persistence influences connected to advising. These findings also indicate that online doctoral students may not be properly prepared to make the transition from coursework to independent doctoral research.

All participants reported having multiple advisors, including both faculty and academic advisors. Participants clearly perceived faculty advisors to be their primary source of information about research processes. Participants recognized faculty's expertise, authority, and credibility in ways they did not perceive from other advisors. The importance of faculty advising extending to online doctoral students supports Barnes et al.'s (2010) findings that faculty advisors influence doctoral students' attitudes and progression.

At the same time, participants reported the advisement they received about the transition from coursework to independent research left them feeling unprepared and frustrated. Inconsistent advisement compounded their frustrations. Lovitts's (2001) germinal research on doctoral students' persistence included findings that doctoral students often felt unprepared to make the transition into independent research. The themes of lack of process advisement and inconsistent advisement extend this idea to online doctoral students. Inadequate advising may be at the root of participants' perceptions that they are responsible for their own persistence. Participants may have been more likely to attribute some degree of their persistence to their advisors if the advising they received was better.

Practical Implications

Opportunities exist for institutions to reduce student frustrations when transitioning to independent research by improving the advising process. Practical recommendations informed by the current study for doing so included (a) facilitating more faculty-student interactions, (b) adding more advisement and instruction about the research process during the coursework phase of a program, including giving student advisors additional training about the doctoral research process, (c) creating opportunities for more peer-to-peer interactions and instituting peer advising or peer mentoring initiatives, and (d) implementing appreciative advising strategies to assist students to make the transition from coursework to independent research.

The current study's findings suggest that facilitating more faculty-student interactions can improve advising to support doctoral student persistence. Participants reported that opportunities for one-on-one advising with faculty were especially valuable. Russo-Gleicher (2014) suggested online student retention could be improved through better student access to mentors and faculty. The theme that faculty advising is paramount presents an opportunity to improve the advising process by giving students more access to faculty advisors earlier in their program. Assigning chairpersons and committees to facilitate one-on-one faculty advising sessions for students prior to the transition from coursework to independent doctoral research could better prepare them and positively influence their persistence.

The theme of lack of process advisement supports adding more advisement and instruction about the research process during the coursework phase of a program. This strategy would be consistent with Tinto's (1975, 1993) findings about the importance of academic integration. Participants reported that they often turned to peers because of perceived inattention, incompetence, or discomfort they experienced with other advisors. Thus, facilitating more peer-to-peer interaction in ways to maximize peer advising opportunities supports making for a smoother transition for students from coursework to independent research. Establishing a formal peer advisor or peer mentor system would improve social integration for students, as well as possibly alleviate some of the feelings of isolation that the study participants reported, as reflected in the theme of doctoral research is lonely.

Advising practices suggested by the current study to improve students' preparation for independent research include: (a) having faculty discuss the process of the transition and what to expect with students outside of the classroom environment; (b) providing additional training for academic advisors about the research process, which has the added benefit of increasing these advisors' credibility; and (c) giving more advisement related to self-care, loneliness and isolation, and other psychological stressors that online doctoral students experience when transitioning to from coursework to independent research. Appreciative advising aligned with Schlossberg's 4 S System (1981) —situation, self, strategies, and support—through use of an appreciative inquiry framework to challenge students' deficit mindsets, highlight student strengths, and empower students to control their own academic success (Hutson, Ye, and Bloom, 2014). Extending 4 S and appreciative advising methods to online doctoral students supports an advising improvement to positively influence the transition from coursework to independent research.

Online doctoral students' persistence remains problematic. Further study is needed about online doctoral students' experience, particularly with respect to the transition from coursework to independent research. Implementing institutional measures in advising for online doctoral students as they make this transition may positively influence progression and persistence rates overall.

References

- Ames, C., Berman, R., & Casteel, A. (2018). A preliminary examination of doctoral retention factors in private online workspaces. *International Journal of Doctoral Studies*, 13, 79-107. doi:10.28945/3958
- Barnes, B. J., Williams, E. A., & Archer, S. A. (2010). Characteristics that matter most: Doctoral students' perceptions of positive and negative advisor attributes. *NACADA Journal*, 30(1), 34-46. doi:10.12930/0271-9517-30.1.34
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485-540. doi:10.3102%2F00346543055004485
- Bowen, W., & Rudenstine, N. (1992). *In pursuit of the Ph.D.* Princeton, NJ: Princeton University Press.
- Britto, M., & Rush, S. (2013). Developing and implementing comprehensive student support services for online students. *Journal of Asynchronous Learning Networks*, 17(1), 29-42. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1011371.pdf>
- Chmiliar, L. (2010). Explanatory case study. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 582-584). Thousand Oaks, CA: Sage Publications. doi:10.4135/9781412957397
- Council of Graduate Schools. (2008). *Ph.D. completion and attrition: Analysis of baseline program data from the Ph.D. completion project*. Retrieved from http://www.phdcompletion.org/quantitative/book1_quant.asp
- Council of Graduate Schools. (2010). *Ph.D. completion: Policies and practices to promote student success*. Washington, DC: Author.
- Council of Graduate Schools. (2017). *The crucial issue of doctoral non-completion*. Washington, DC: Author.
- Craft, C. M., Augustine-Shaw, D., Fairbanks, A., & Adams-Wright, G. (2016). Advising doctoral students in education programs. *NACADA Journal*, 36(1), 54-65. doi:10.12930/NACADA-15-013

- Cross, T. M. (2014). The gritty: Grit and non-traditional doctoral student success. *Journal of Educators Online*, 11(3), 1-30. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1033306.pdf>
- Deshpande, A. (2017). Faculty best practices to support students in the "Virtual Doctoral Land." *Higher Education for the Future*, 4(1), 12-30. doi:10.1177/2347631116681211
- Devos, C., Boudrenghien, G., Van, d. L., Azzi, A., Frenay, M., Galand, B., & Klein, O. (2017). Doctoral students' experiences leading to completion or attrition: A matter of sense, progress and distress. *European Journal of Psychology of Education*, 32(1), 61-77. doi:10.1007/s10212-016-0290-0
- Drake, J. K. (2011). The role of academic advising in student retention and persistence. *About Campus*, 16(3), 8-12. doi:10.1002/abc.20062
- Duke, D., & Denicolo, P. M. (2017). What supervisors and universities can do to enhance doctoral student experience (and how they can help themselves). *FEMS Microbiology Letters*, 364(9), 23-35. doi:10.1093/femsle/fnx090
- Frischmann, J. A., & Moor, K. S. (2017). Invited article: Bridging the gap - supporting the transition from high school to college. *Administrative Issues Journal: Education, Practice & Research*, 7(2), 1-10. doi:10.5929/2017.7.2.3
- Fuller, J., Risner, M., Lowder, L., Hart, M., & Bachenheimer, B. (2014). Graduates' reflections on an online doctorate in educational technology. *Techtrends: Linking Research & Practice to Improve Learning*, 58(4):73-80. Retrieved from <https://doi.org/10.1007/s11528-014-0771-4>
- Gansemmer-Topf, A. M. (2013). How assessment can advance efforts to enhance undergraduate student persistence. *New Directions for Student Services*, 2013(142), 61-70. doi:10.1002/ss.20049
- Girves, J. E., & Wemmerus, V. (1988). Developing models of graduate student degree progress. *Journal of Higher Education*, 59(2), 163-189. doi:10.1080/00221546.1988.11778320
- Golde, C. M., & Dore, T. M. (2001). At cross purposes: What the experiences of doctoral students reveal about doctoral education. Retrieved from www.phd-survey.org
- Gomez, D. (2013). Leadership behavior and its impact on student success and retention in online graduate education. *Academy of Educational Leadership Journal*, 17(2), 13-37. Retrieved from <https://www.abacademies.org/articles/aeljvol17no22013.pdf#page=21>
- Harder, H. (2010). Explanatory case study. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 370-371). Thousand Oaks, CA: Sage Publications. doi:10.4135/9781412957397
- Hutson, B. L., Ye, H., & Bloom, J. L. (2014). How appreciative advising is revolutionizing academic advising framework, Evolution and possible future directions. *AI Practitioner*, 16(2), 47-53. doi:10.12781/978-1-907549-19-9-8
- King, S. B., & Williams, F. K. (2014). Barriers to completing the dissertation as perceived by education leadership doctoral students. *Community College Journal of Research & Practice*, 38(2/3), 275. doi:10.1080/10668926.2014.851992
- Locke, L. A., & Boyle, M. (2016). Avoiding the A.B.D. abyss: A grounded theory study of a dissertation-focused course for doctoral students in an educational leadership program. *The Qualitative Report*, 21(9), 1574-1593. Retrieved from <http://nsuworks.nova.edu/tqr/vol21/iss9/2>
- Lovitts, B. E. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study*. Lanham, MD: Rowman & Littlefield.
- Lovitts, B. E. (2005). Being a good course-taker is not enough: a theoretical perspective on the transition to independent research. *Studies in Higher Education*, 30(2), 137-154. doi:10.1080/03075070500043093
- Lovitts, B. E. (2008). The transition to independent research: Who makes it, who doesn't, and why. *Journal of Higher Education*, 79(3), 296-325. Retrieved from http://970.donhamerly.info/sites/default/files/Lovitts_2008.pdf

- Markle, G. (2015). Factors influencing persistence among nontraditional university students. *Adult Education Quarterly: A Journal of Research and Theory*, 65(3), 267-285. doi:10.1177/0741713615583085
- Mullen, C. A., Fish, V. L., & Hutinger, J. L. (2010). Mentoring doctoral students through scholastic engagement: Adult learning principles in action. *Journal of Further and Higher Education*, 34(2), 179-197. doi:10.1080/03098771003695452
- National Science Foundation. (2017). *National Science Foundation, National Center for Science and Engineering Statistics. 2017. Doctorate Recipients from U.S. Universities: 2015*. (Special Report NSF 17-306). Retrieved from <https://www.nsf.gov/statistics/2017/nsf17306/static/report/nsf17306.pdf>
- Rockinson-Szapkiw, A. J., Spaulding, L. S., & Bade, B. (2014). Completion of educational doctorates: How universities can foster persistence. *International Journal of Doctoral Studies*, 9, 293-308. Retrieved from <http://informing-science.com/ijds/Volume9/IJDSv9p293-308Rockinson0607.pdf>
- Rockinson-Szapkiw, A. J., Spaulding, L. S., & Spaulding, M. T. (2016). Identifying significant integration and institutional factors that predict online doctoral persistence. *The Internet and Higher Education*, 31, 101-112. doi:10.1016/j.iheduc.2016.07.003
- Russo-Gleicher, R., (2014). Improving student retention in online college classes: Qualitative insights from faculty. *Journal of College Student Retention: Research, Theory & Practice*, 16(2), 239-260. doi:10.2190/CS.16.2.e
- Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist*, 9, 2-18. doi:10.1177/001100008100900202
- Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States*. Retrieved from <http://www.onlinelearning-survey.com/reports/gradeincrease.pdf>
- Streb, C. K. (2010). Exploratory case study. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 372-373). Thousand Oaks, CA: Sage. doi:10.4135/9781412957397
- Terrell, S. R., Lohle, M. F., & Kennedy, D. (2016). Student-identified requirements for persistence in a limited-residency information systems PhD program. *Online Journal of Applied Knowledge Management*, 4(1), 150-164. Retrieved from http://www.iiakm.org/ojakm/articles/2016/volume4_1/OJAKM_Volume4_1pp150-164.pdf
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.874.5361&rep=rep1&type=pdf>
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: The University of Chicago Press.
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago, IL: The University of Chicago Press.
- Tinto, V. (2017). Reflections on student persistence. *Student Success*, 8(2), 1-8. doi:10.5204/ssj.v8i2.
- U.S. Department of Education, National Center for Education Statistics. (2017). *Integrated Postsecondary Education Data System (IPEDS), Spring 2017, Fall Enrollment component*. Retrieved from https://nces.ed.gov/programs/coe/indicator_chb.asp
- U.S. Department of Education, National Center for Education Statistics. (2017). *Integrated Postsecondary Education Data System (IPEDS), Fall 2001 through Fall 2016, Completions component*. Retrieved from https://nces.ed.gov/programs/coe/indicator_cts.asp
- Vianden, J. (2016). Ties that bind: Academic advisors as agents of student relationship management. *NACADA Journal*, 36(1), 19-29. doi:10.12930/NACADA-15-026a
- Yin, R. K. (2012). Case study methods. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 141-155). doi:10.1037/13620-009
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.
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