Improving Doctoral Candidates' Persistence
in the Online Dissertation Process

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Abstract: Variables associated with doctoral attrition and distance education attrition are academic, social, and emotional. Thus, methods chosen to support doctoral students in the doctoral journey, and more specifically, the dissertation process, should take into account doctoral students needs on both an academic and social/ emotional level. This article examines the use of a collaborative technology, Microsoft Office SharePoint, and its ability to support distance doctoral candidates both socially and academically in the dissertation process in comparison with traditional dissertation facilitation methods.

Introduction

Research has consistently shown, in a traditional setting, approximately 50% of doctoral students do not graduate (Berelson, 1960; Bowen & Rudenstine, 1992; Lovitts, 2001; Smallwood, 2004) and that attrition in distance education environment is estimated to range from 10% to 50% higher than in the traditional environment (Carr, 2000; Diaz, 2002; Frankola, 2001). Doctoral attrition, especially in the distance education environment, is of concern on many levels. For example, the loss of doctoral students results in immeasurable losses in research and economic loss for the student and the university.

Variables associated with doctoral attrition and distance education attrition are numerous. Attrition in doctoral programs has been attributed to feelings of isolation, miscommunication or problems with committee members, dissatisfaction with the program, personal and family issues, academic failure, and loss of motivation (Lovitts, 2001). The higher attrition rate in the distance environment has been attributed to similar factors including feelings of isolation, personal issues, and low levels of interaction with faculty and peers (Ali & Kohun, 2006; Golde, 2005; Hackman & Walker, 1990; Olgren, 2004; The New Media Consortium, 2006). Clearly, factors that influence attrition in distance education doctoral programs are not only academic, but social and emotional in nature. Thus, methods chosen to support doctoral students in the doctoral journey, and more specifically, the dissertation process, should take into account doctoral students needs not only academically, but also on the social and emotional level. This article examines the use of a collaborative technology, Microsoft Office SharePoint, and its ability to support distance doctoral candidates both socially and emotionally in the dissertation process in comparison with traditional dissertation facilitation methods.

Methods

A convenience sample of 92 doctoral candidates enrolled in the dissertation process in an online Ed.D. program was examined. The sample consisted of 35 (38%) males and 57 (62%) females. The majority of participants were Caucasian, 72 (82.6%). Eight (8.7%) participants were African- Americans, four (4.3%) participants were Asian, two (2.2%) participants were Latino, and all other participants classified themselves as other. Five (5.4 %) of the participants ranged in age from 20-29, 34 (37%) ranged in age from 30-39, 29 (31.5%) ranged in age from 40-49, 23 (25%) ranged in age from 50-59. One (1.1%) participant was 60 or over. Forty five (48.9%) of the participants were working to develop their proposals, the other participants were in the process of developing collecting their data and developing their manuscripts in preparation for their dissertation defense. The doctoral candidates who participated had been enrolled in the dissertation process between 1 and 10 semesters. The

majority (68) of the candidates had been enrolled in the process from 1 to 3 semesters. Eleven doctoral candidates defended during the duration of the study.

Prior to Fall 2010, doctoral students engaged in the dissertation process using a university webpage to gain information about the dissertation process and an e-mail system to collaborate with their committee chair and committee members. In Fall 2010, the university enhanced their website and integrated a new technology, Microsoft SharePoint, to facilitate the distribution of dissertation information and to facilitate collaboration among committees and candidates.

Microsoft Office SharePoint is an online collaboration workspace and content management server, which has numerous features and capabilities. Programmers may even program applications for special needs. The Dissertation SharePoint site included several portals: (a) The Dissertation Portal. The central Dissertation Portal was a medium where doctoral candidates could access useful dissertation resources and links. This included links to the dissertation handbook, forms needed for the dissertation process, manuscript templates, and a calendar that listed everyone's proposal and defense dates. The central Dissertation Portal was also the location of several discussion forums that candidates used to collaborate with peers. See Figure 1. (b) The Chair Availability Portal. The Chair Availability Portal listed all potential dissertation chairs and their availability to chair dissertations. Candidates at the beginning of the dissertation process could access it to determine whether they should contact faculty as a potential chair. (c) The Candidate Research Showcase. The Candidate Research Showcase allowed each candidate to showcase their work and their progress. Items on this site included: one-minute research summaries that outline dissertation research plans, prospectuses, proposals, manuscripts, and dissertation announcements. (d) My Dissertation Portal. Each candidate hadhis or her own portal – My Dissertation Portal - that he or she shared with the LU committee members. Each portal was a secure site and could only be accessed by the candidate, the chair, and the committee members. The portal was a place where committee members and the candidate could work collaboratively. The site included a discussion forum, a dissertation timeline that the candidate and the chair can work collaboratively create, a place to store and to share dissertation documents, and a place that the candidate is required to update his or her dissertation status. See Figure 2. Both a Committee and Administration Portal were also created; however, candidates did not have access to these two portals.
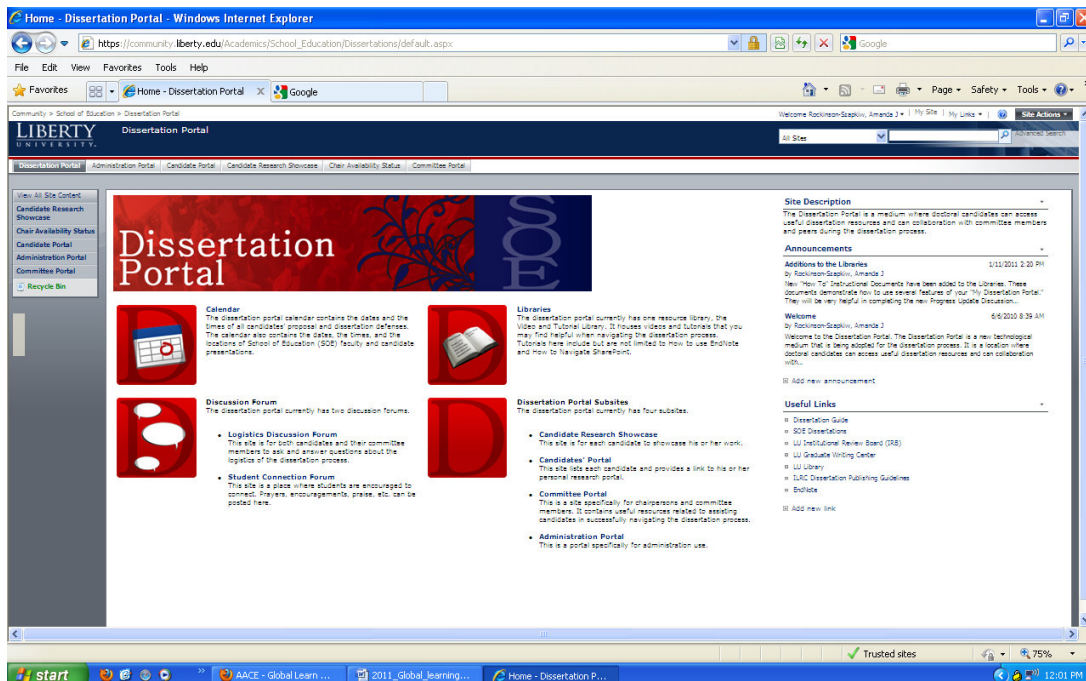

Figure 1. The Dissertation Portal.

Figure 2. My Dissertation Portal.

In August 2010, prior to the beginning of the fall semester and integration of SharePoint, all candidates enrolled in the dissertation process received an e-mail from the researchers informing them about the study and requesting that they complete an online questionnaire located on a secure online survey system. One follow-up e-mail was sent. Entrance to a drawing for $10 gas gift cards was offered for completing the online survey. In February 2010, all participants received anothe e-mail from the researchers requesting that they complete another online questionnaire.

Instrumentation

In the present study, the online questionnaires consisted of demographic questions, an e-learning attitudinal survey (Laiw, 2008), and the Doctoral Connectedness Scale (Terrell, Snyder, & Dringus, 2009). The e-learning attitudinal survey consisted of questions about perceived self-efficacy, perceived satisfaction, perceived usefulness, behavioral intention, e-learning system quality, interactive learning activities, and E-learning effectiveness. On a 7-point Likert scale (i.e. 7 = strongly agree and 1 = strongly disagree), participants indicated the response that best reflects their feelings about statements. The alpha reliability was acceptable at .97 and items' coefficients ranged from 0.57 to 0.80 (Laiw, 2008).

The Doctoral Connectedness Scale is an 18 item scale with two subscales: student to student connectedness and faculty to student connectedness. On a 5-point Likert scale (i.e. 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree), participants indicated the response that best reflects their feelings about statements. Higher scores reflected a stronger sense of social connectedness. Evidence supports good construct validity and good reliability; Cronbach's alpha was .87 and Spearman-Brown coefficient was .93 (Terrell, Snyder, & Dringus, 2009).

Research Design and Analysis

In this case study, descriptive statistics are reported for demographics and the e-learning attitudinal survey items. A dependent *t*-test will be used to analyze the mean scores of participants' composite connectedness scores on the two occasions.

The descriptive statistics for the attitudinal survey are in Table 1. Overall inspection of the mean scores illustrate that students were satisfied with SharePoint and perceived it useful. They were confident using the technology and intended to use it. Students also positively rated the effectiveness and quality of the system.

Table 1.
Descriptive Statistics for the Attitudinal Survey

Statement	M	SD
Perceived self-efficacy:		
I feel confident using the current dissertation technologies system	5.16	1.86
I feel confident operating current dissertation technologies functions	5.26	1.75
I feel confident using online learning contents	5.91	1.59
Perceived satisfaction:		
I am satisfied with using current dissertation technologies as a learning assisted tool	5.10	1.82
I am satisfied with using current dissertation technologies functions	5.14	1.79
I am satisfied with contents to support the dissertation process	5.09	1.80
I am satisfied with instruction/ mentorship I receive	5.00	1.85
Perceived usefulness:		
I believe current dissertation technologies contents are informative	5.25	1.77
I believe current dissertation technologies is a useful learning tool	5.13	1.85
I believe current dissertation technologies contents are useful	5.24	1.77
Behavioral intention:		
I intend to use current dissertation technologies to assist my learning	5.39	1.79
I intend to use current dissertation technologies content to assist my learning	5.37	1.84
I intend to use current dissertation technologies as an autonomous learning tool	5.17	1.79
e-learning system quality:		
I am satisfied with current dissertation technologies functions	4.97	1.87
I am satisfied with current dissertation technologies content	5.05	1.83
I am satisfied with current dissertation technologies interaction	4.82	1.83
Interactive learning activities		
I would like to share positively my current dissertation experience	4.83	1.89
I believe current dissertation technologies assist teacher-learner interaction	4.72	1.82
I believe current dissertation technologies assist learner-learner interaction	4.59	1.90
E-learning effectiveness		
I believe current dissertation technologies can assist learning efficiency	5.09	1.70
I believe current dissertation technologies can assist learning performance	5.09	1.64
I believe current dissertation technologies can assist learning motivation	5.12	1.72

A dependent *t*-test was conducted to evaluate the null hypothesis that there was no difference between the sense of connectedness on pretest and posttest. Preliminary assumption testing was conducted and found satisfactory. The results provided evidence to reject the null hypothesis. Results yielded that students' mean connectedness cores significantly increased from pretest ($M = 55.01$, $SD = 16.57$) to posttest ($M = 60.41$, $SD = 16.59$), $t(91) = 2.35$, $p < .02$, partial eta squared = .06. Effect size was moderate to small. The power was .64. The 95% confidence interval for the mean difference between the two scores was .83 to 9.98.

Discussion and Conclusion

Research has emphasized the importance of community and its relationship to satisfaction, learning, and online persistence (Rovai, 2002). Research clearly establishes that doctoral candidates' perceived level of connectedness and satisfaction in the dissertation process is less than desirable (Terrell, Snyder, & Dringus, 2009); thus, resulting in high attrition rates. In the online environment, attrition rates are higher than in traditional programs. Thus, a need exists to identify interventions and mediums that can used to facilitate feelings of connectedness and to increase levels of satisfaction of online doctoral candidates in the dissertation process. This study examined the use of Share Point as a collaborative workspace in the dissertation process. Findings provided evidence that the adoption of this collaborative web-based work space to share documents and to facilitate ongoing discourse among doctoral candidates, their peers, and their committees resulted in increased student-to-student and student-to faculty connection when compared with traditional dissertation communication methods (e.g. e-mail). Additionally, students reported medium to high levels of satisfaction in using SharePoint to facilitate the dissertation process. This aligns with research that recommends Sharepoint as a way to streamline and organize the dissertation process (Rockinson-Szapkiw, Dunn, & Holder, 2010).

Thus, this study supports the adoption of a collaborative workspace for the dissertation process to increase connectedness and satisfaction; thus, persistence in the online dissertation process. Further research that uses a rigorous methodology will be needed to verify results of the study. Further research will need to be conducted to identify various features of SharePoint that are significant to the support of students socially, emotionally, and academically.

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