LEVERAGING SOCIOCULTURAL THEORY TO CREATE A MENTORSHIP PROGRAM FOR DOCTORAL STUDENTS

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ABSTRACT

This paper details a proposed doctoral student connections program that is based on sociocultural theory. It is designed to assist new students with starting their educational journey. This program is designed to leverage social interactions, peer mentorship, personal reflection, purposeful planning, and existing resources to assist students in navigating a department's doctoral program culture.

KEYWORDS

Mentorship, sociocultural theory, Personal Learning Network, doctoral students, program design

1. INTRODUCTION

We begin this paper by proposing that doctoral students need informal as well as formal student development as they enter their chosen program to become effective students navigating their new learning environment with a minimum of challenges. Research has found that alleviating doctoral students' challenges will shorten time-to-degree and thereby reduce attrition rates (West et al., 2011; Boyle Single, 2010) as well as keep cost down for students (Beauchamp et al, 2009). Other than cost, challenges that students often encounter include a) difficulty with writing (Boyle Single), b) conflicting roles as a working adult while studying (Beauchamp et al.), and also c) lack of social contact and advising. Mentoring, as Mullen et al. (2010: 180) noted, "can foster viable relationships between faculty and students, increase engagement with research and scholarship, [and] facilitate peer support". Further, a well-designed doctoral program provides clear guidelines for students and has faculty focused on teaching and alert to student needs (Morrison et al., 2011). Also, students in programs that provide clear program requirements graduate in less time (Boyle Single). We thus foresee that those students who understand program expectations and have ease of access to answers will be better equipped to maneuver their way towards successful program completion.

Socialization is a necessary period in the doctoral years when students learn "what the academic career involves, the norms, values, and ethics embedded in their disciplines, and the expectations and work habits that they will be expected to meet" (Austin, 2009: 173). In addition to advising, faculty mentoring, and written requirements, peer mentoring can be a useful means to segue new students from point-to-point in their program. The importance of mentoring and guiding students has been documented by several researchers (Boyle Single, 2010; Columbaro, 2009; Kwan, 2009), however, is practiced unevenly (Sowell et al., 2008). The Council of Graduate Schools (CGS) has also, based on their seven-year research on *issues surrounding Ph.D. completion and attrition*, recommended that university programs a) train peer mentors to work with newer students, b) develop online mechanisms students can use to track their progress throughout the program, c) share information on the dissertation proposal process, and d) provide a FAQ page on both the program website and in a new student orientation handbook (Sowell et al.).

Technologies are often described as "cognitive tools" that can transform, augment and support cognitive engagement among learners (McLoughlin and Oliver, 1999). Presented here is our work in progress with the design of the *Connections Program,* a doctoral development program utilizing technologies for learning, thinking, and connecting. It was designed to leverage sociocultural theory and include a *Personal Learning Network* (PLN) for students. It is believed that this program may help new students more smoothly transition between the stages of their program.

1.1 Theoretical Framework

Social constructivism recognizes that knowledge is a social product constructed through discourse – a give and take of validity claims within cultural and historical communities – where the resulting product is what is agreed on as constituting truth (Prawat and Floden, 1994). Vygotsky, a noted psychologist, is recognized as the founder of what is known as sociocultural theory (SCT) (Holbrook, 1999). In particular, Vygotsky studied human consciousness as well as how socially mediated communicative acts and interactions lead to development of thinking and construction of meaning. SCT takes into account the cultural and historical aspect of learning and meaning making in a social context. As such, the theory promotes the idea that education should be engaged with "not just (…) theories of instruction, but with learning to learn, developing skills and strategies to continue to learn, with making learning experiences meaningful and relevant to the individual, with developing and growing as a whole person" (Williams and Burden, as cited in Turuk, 2008: 247). In many ways, the theory challenges today's traditional teaching methods that build on student regurgitation of teacher disseminated knowledge (Hausfather, 1996).

Sociocultural theory, as noted by Holbrook (1999), includes (and is here exemplified within the doctoral program context):

Social interaction within the cultural context. For example, students new to a doctoral program need social interactions such as language to learn and develop the necessary skills for synthesizing new information pertinent to their degree program. When they are forming *circles of learning* with faculty, with other new students, and with more experienced peers, new students may discuss how to fulfill the culturally set norms of the program. This enculturation may include: learning what it means to be a doctoral student, program requirements, how to conduct research, and so forth. Additionally and ideally, new students should strive to quickly establish a *Personal Learning Network* (PLN) for continued social interactions throughout their time in the program. The PLN is described in detail later in this paper.

Interacting with the more knowledgeable other. In order to capitalize on the experiences and knowledge of more seasoned doctoral students in the program and build new knowledge blocks, new students are assigned peer mentors. These individuals are often referred to as *more knowledgeable others* (MKOs). Seen from this perspective, new doctoral students may benefit from this mentoring relationship because the mentor has been in the program longer and knows the culture and procedures of the program. Piskurich (2006) described the advantages and disadvantages of mentoring and noted the importance of finding mentors with the right skill set so that learners may truly benefit. That is to say, the interaction between mentor and mentee is only helpful at advancing the mentees' cognitive skills, when the cognitive distance between the mentee and mentor is bridgeable. Piskurich further noted concerns and limitations with mentoring programs that should be taken into consideration when developing such programming. These, he said, included them being time-consuming, costly, difficult because of the availability of subject matter experts, and as interfering with other activities.

The zone of proximal development defines the bridgeable gap between what an individual is capable of learning independently and what an individual is capable of learning through social interaction with MKOs (Vygotsky, 1978). Using a doctoral program as an example, mentors may provide scaffolding by providing missing information or clarifying procedures about how to submit papers for conferences or how to prepare a portfolio. However, if the gap is too great or miscalculated, then the interaction does not benefit either student. As such, the exchange must help the mentees bridge what they do not already know.

2. PROGRAM DESIGN

2.1 The Connections Program

The instructional design presented here provides one possible solution for acculturating doctoral students in a mentoring program. The Connections Program discussed is designed to help new students form relationships with fellow students and faculty in their degree program. This is done in order to help novice students learn from their mentor's experiences, receive help and mentorship with planning their degree completion, and to help them leverage social and cultural interactions to form a PLN that can continue beyond the completion of the Connections Program.

The Connections Program (Figure 1) will introduce students to the doctoral program through three main components: 1) a learning management organization hosted in Blackboard, 2) reflection on a blogging platform such as WordPress, and 3) an individualized network of learning resources and people also known as a Personal Learning Network. The Blackboard Organization is a container space similar to a course, however, not tied to only students and certain dates. This space will hold student resources and activities such as a mandatory Survival Basics Module for new students that pulls together into one place many of the disparate information sources about the program.
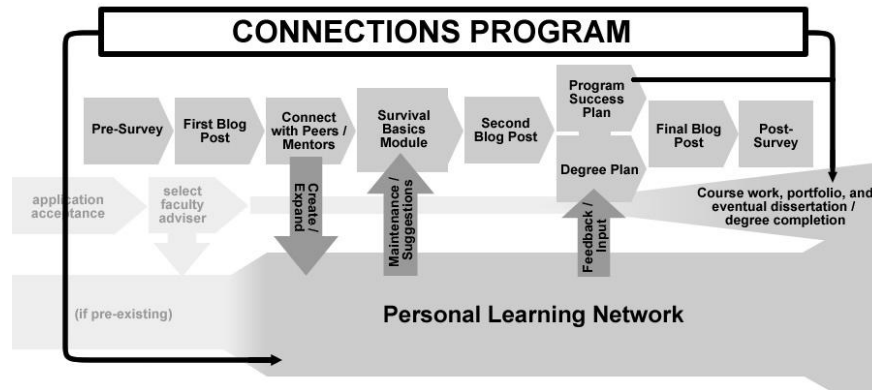

Figure 1. Overview of the Components of the Connections.

2.2 The Personal Learning Network (PLN)

The PLN should afford new doctoral students the opportunity to connect with other new and existing students as well as with faculty. This network consists of peer mentors with program experience who also moderate department social media, other students with similar research interests, university staff, and any other resources that students utilize when learning. This mentoring network, together with the Blackboard Organization, should help new students discover both explicit expectations and unwritten norms regarding what is expected from them as new doctoral students, as well as with completing the mandatory activities of the Connections Program. Necessarily, the PLN requires buy-in from new students and more experienced students. In their role as social media moderators, peer mentors will act as guides that facilitate connections between new and existing students. Therefore, part of their role will include sharing information about newcomers, welcoming them to the community, and leveraging them into the research environment.

When establishing this mentoring system, peer mentors will be identified by the university and/or academic department to be trained and rewarded for their PLN participation. Such rewards need not necessarily be monetary, but can potentially be something with other value. This may be the inclusion of the mentoring activity as an artifact in the student portfolio that showcases their personal growth in assisting others. In their peer mentor capacity, mentors will share their experiences with navigating the degree program and serve as guides within the Connections.

New students will be expected to utilize their PLN for evaluation of the products they are required to complete within the program. These may include surveys, blogs, degree plan, and program success plan. The expectation is that implementation of these products will not increase the workload of the faculty advisor, but instead should naturally improve communications with students by adding additional insight into their progress in the doctoral program. Blogging is expected to help students start writing academically and professionally. This should help build important reflection and writing skills.

2.3 Using SCT to Create the Connections Program

The goal of the Connections Program is to provide vital resource connections that help new students successfully navigate their degree program to completion. The elicitation, promotion, and facilitation of sociocultural experiences are at the heart of the training.

By helping new students find answers to their various "How do I...and when do I...." program questions, peer-mentor relationships should be promoted with the expectation of capitalizing on seasoned students' prior program experiences. This is expected to aid in addressing new students' zone of proximal development. Additionally, this should allow a virtual program culture to be further cultivated using the Blackboard Organization in conjunction with social media tools (Facebook, LinkedIn, Twitter, etc.).

2.4 Learning Expectations and Assessment

After successfully completing the Connections Program, students will have completed their Degree Plan and Program Success Plan as well as have formed a PLN to support their work in the program. Students will be expected to interact with peer mentors and faculty advisers by receiving feedback for improvement on these products, reflecting on the program process by writing blog entries, completing a self-paced Survival Basics Module, interacting with their PLN, and completing program surveys (Figure 2). They should acquire the skills needed to understand various aspects of their degree program, expand their role as members of the learning community, and utilize their PLN to aid their success in their degree program. Quantitative data will be collected through pre/post attitudinal surveys to measure to what degree the student is aware of the resources. In addition, work completed in this program will be integrated into the student's doctoral portfolio, which will be used to evaluate the student's overall success in the program once coursework is complete.

Products and Activities

01) Pre-Program Attitudinal Survey		
02) Connect with peer mentors to begin the creation of a PLN	Peer	PLN
03) Completion of a self-paced Survival Basics Module	Peer	PLN
04) Creation of a departmental Degree Plan	Rubric	
05) Revise Degree Plan	Peer	PLN
06) Creation of a Program Success Plan	Rubric	
07) Revise Program Success Plan	Peer	PLN
08) Final submission of Degree Plan and Program Success Plan		
09) Reflect over the process of connecting by writing blog posts	Rubric	
10) Post-Program Attitudinal Survey		

PLN - Utilizes learner's Personal Learning Network
Rubric - Evaluated by faculty mentor based on a Rubric
Peer - Peer mentors provide feedbak and input

Figure 2. Overview of the Ten Activities of the Program

3. CONCLUSION

The work in progress presented in this paper is designed to alleviate some challenges that new doctoral students often experience at the beginning of the doctoral program. Veteran students should have many ideas and suggestions for new students on surviving the initial semesters of a doctoral program. Connecting new doctoral students with more experienced peer mentors in formal and informal settings may assist the transfer of knowledge from experienced students to newer ones. Additionally, creating a culture of connection and knowledge-sharing may improve the overall atmosphere of a program. Not every student will find this social model of sharing knowledge to their liking, as embracing connections may depend on individual student buy-in. Any department that implements a program such as this will need to adjust the process as needed until they get the right fit for their specific student population. While it may be argued that the social connections described in this paper already occur in degree programs on an informal basis, the novelty of this idea comes from formalizing the acculturation process to create connections with faculty and mentor facilitations. The integration of students' formal learning with an informal PLN opens up the possibility of creating an atmosphere of learning and support from which all students may benefit.

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