Am I Supposed to Create Knowledge?: Pedagogical Challenges of Doctoral Mentors

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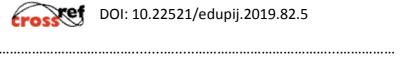**Jung-ah Choi,** St. Peter's University, United States. (e-mail: Jchoi1@saintpeters.edu)

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Abstract

This paper discusses the nature and characteristics of doctoral dissertation learning and the role of mentor in the dissertation stage. Doctoral level education requires a considerable degree of learner's independent thinking. While independence has been discussed as a personal trait or in relation to the socialization of doctoral education, independence has rarely been discussed as a higher level of cognitive development necessary to create new knowledge. When students transition from a consumer of knowledge to a creator/owner of knowledge, they are required to adopt a new epistemology, i.e., a new way of knowing. How do doctoral advisors/mentors successfully open students to a new way of knowing? This paper addresses the pedagogical foundations of doctoral advising. Drawing on theories of student-centered pedagogy and self-directed learning, this paper attempts to conceptualize the doctoral supervisor's role in the case of doctoral supervision.

Keywords: doctoral mentor, knowledge, pedagogical challenges.

Introduction

When students transition from a consumer of knowledge to a creator/owner of knowledge, they are required to adopt a new epistemology, i.e., a new way of knowing. Consumers of knowledge are typically given reading assignments or writing assignments within a given topic. However, creators of knowledge assign themselves the reading or writing assignment. Intellectual autonomy and independence is a critical goal of doctoral education. How do doctoral advisors/mentors successfully open students up to a new way of knowing? It is a daunting task to teach how to cultivate the ability to think independently and creatively. While independence has been discussed as a personal trait or in relation to the socialization of doctoral education (Baker, Pifer, & Flemion, 2013; Gardner, 2008; Lee, 2008), independence has rarely been discussed as a higher level of cognitive development necessary to create a new knowledge.

In U.S. doctoral programs, doctoral students undergo two phases: a Dependent stage (Stage 1) and an Independent stage (Stage 2) (Golde & Dore, 2001). In the Dependent stage, students take courses or undertake guided research with faculty mentors; whereas, in the Independent stage, students engage in self-directed, independent learning. Stage 1 is defined as teacher control and Stage 2 as learner control (Baker et al., 2013; Lovitts, 2005). Research on the transition between the stages has focused on the students' struggle to achieve independence (Baker & Pifer, 2011; Baker et al., 2013; Lovitts, 2005). Lovitts (2005) stated that in Stage 2, students go through a level of transformation in their relationship with knowledge and the relationship with their mentor, because the transition occurs from a passive adoption of the existing scholarship to the creation of new/original knowledge. A new mode of thinking such as messy thinking, working through uncertainty, thinking beyond what is considered "safe," and venturing into new ideas, should be employed in Stage 2. Doctoral students who are used to learning and being tested face huge challenges in this new learning environment (Felder & Brent, 1996; Raddon, Raby, & Sharpe, 2009). This paper addresses the pedagogical foundations of doctoral advising for Stage 2 students. Drawing on theories of student-centered pedagogy and self-directed learning, this paper attempts to conceptualize the mentor's role in the case of doctoral supervision.

Theoretical Framework

Differentiated from the concept of "pedagogy," "andragogy" was proposed by Knowles (1968/1980) as a means of conceptualizing the characteristics of adult learning such as independent thinking, self-directed learning, and a less structured environment. The learning situation of Stage 2 in doctoral education shares many adult education theories that have a premise that learners are self-motivated, independent, autonomous, self-managed, and intrinsically motivated. The principle of andragogy is well utilized in Stage 2 doctoral learning, because most doctoral students are self-motivated, self-directed learners who are able to conduct learner-centered education (Houle, 1996). Grow (1991) classified the degree of a learner's self-directedness in four levels: dependent – interested – involved – self-directed; and characterized doctoral dissertation as the self-directed stage, the most directed stage. Obviously, the dissertation stage exemplifies self-directed learning because it is the learner who makes decisions regarding objectives, sequence, strategies, and evaluation.

Although self-directed learning is a necessary condition in order to create knowledge, self-directed learners are not necessarily equipped with the skill that creates new

knowledge. In other words, even if a learner can achieve a high level of personal autonomy with a strong motivation, they can still fail to carry out self-driven inquiry, a necessary skill for the doctoral dissertation stage. The literature on self-directed learning fails to address the learner's relationship with knowledge. Arguably, self-directed learning is complemented by the principle of student-centered pedagogy in this regard. Student-centered pedagogy provides a more elaborated framework to propose a pedagogical model for doctoral education. Weimer (2009) proposed that student-centered pedagogy entails students' active involvement of knowledge, sense of ownership of knowledge, capability of self-evaluation, and the role of the teacher as side-stepper.

The content and structure of dissertation supervision is pedagogically aligned with the principle of student-centered education. Dissertation is inquiry-based problem-solving learning, requiring what adult development literature calls "post-formal thinking" (Commons, Richards, & Armon, 1984). Also, dissertation supervision is practiced in the one-on-one context, where the uniqueness of the individual is taken into account. This learning condition is suitable for student-centered pedagogy, as student-centered pedagogy is hard to implement within the group-setting classroom where content is determined by an instructor (Simon, 1999). Based on Weimer's (2002) five pillars of learner-centered pedagogy, i.e., 1) Balance of power, 2) Function of content, 3) Role of teacher, 4) Responsibility of learning, and 5) Purpose of evaluation, Wright (2009) described innovative college teaching and argued that student-centered pedagogy is a model for higher education pedagogy. This paper expands on Wright's work by applying the five pillars of student-centered pedagogy to dissertation supervising.

Situating My Experience: Method/Data

Doctoral education varies depending on institutional policies and practices, as well as the program's expectations. My experience is situated within the context of an Ed. D program in a U.S. higher education institution where I supervise Stage 2 students. In the program, students are required to conduct an original social science research with empirical data collection and analysis. The first phase of the program consists of two years' course work, and upon successful completion of candidacy exams, students start to conduct research where they formulate a research question, design the research, engage in critical analysis of the existing literature, and analyze the data. The supervisor/mentor is assigned in consultation with the student based on matched research interests. The role of the supervisor, or what my department calls the "mentor," is, broadly speaking, to help students successfully complete their dissertation, which includes: helping determine a topic, providing emotional support, monitoring students' progress, helping them to navigate different committee member's expectations, and coaching on intrapersonal strategies of how to manage time/stress (Delamont, Parry, & Atkinson, 1998; Pearson & Brew, 2002; Turner & Thompson, 1993; Vilkinas, 2008). In addition, socializing doctoral students into the scholarly community, i.e., academia, is an important role: teaching how to present at an academic conference, how to publish, and how to network (Anderson & Anderson, 2012). I have mentored 20+ students, most of whom I have interacted with during their coursework stage. I have incorporated the principles of student-centered pedagogy. My experiences of dissertation supervision will be narrated below based on the five pillars of student-centered pedagogy.

Dissertation Mentoring in Light of Student-Centered Pedagogy

First: Balance of power. After the coursework and candidacy exam up until the oral defense, it is the student that takes charge over the learning process. Unlike traditional teaching settings where teachers have power over the content of knowledge, Stage 2 learning is characterized by shared power between the student and the mentor, which is the key component of student-centered pedagogy. Mentors do not teach a subject matter, but cultivate the ability for independent thinking. Meetings are initiated and led often by the student. Students, except for a few, expect me to guide, not dictate or impose, them through their dissertation process. This is similar to Grow's (1991) characterization of self-directed learners, who use experts, institutions, and other resources to pursue their own goals. In dissertation research, the journey in search of an answer is collaborative, and mentors serve as what Halse and Malfroy (2010) call "learning alliance."

Mentors do not directly exert power, as they do not determine the grade. Although technically there are a group of faculty called a "dissertation committee" who determine the Pass or Fail grade, it is the student who is capable enough to practically assess the quality of their own paper. This process is similar to what the research (Ahn & Class, 2011) shows: students in an undergraduate psychology class can construct their own exam questions by generating exam questions to test analysis and synthesis of Piaget's theory.

This practice of power sharing does not mean that mentors do not a have a higher level of knowledge than students. Although power is shared in dissertation supervision, mentors have professional authority which is grounded in their professional expertise. Mentors have the authority to be able to provide proper guidance and to facilitate students' learning. This guidance occurs typically by providing further reading materials or constructive feedback. Also, mentors are equipped with what Halse and Malfroy (2010) call "contextual expertise," where mentors are able to guide students through how to write a genre of academic writing and how to observe the university's requirements of candidacy.

Second: Content. The content of the course in learning in Stage 2 is determined collaboratively between the student and the mentor, and constantly negotiated toward the completion of the dissertation. Typically, topic selection is a challenging task for doctoral students and the area where they need the most guidance. Some have brought their topic and questions early in their journey; whereas, some have experienced a hard time posing their research questions. The topic-searching stage is best characterized by interested or involved learning in Grow's (1991) spectrum of "dependent," "interested," "involved," and "self-directed." Teaching "interested" or "involved" stage learners can be still directive, not completely student-centered. However, the mentor's role is not to impose or give a topic to students. It is the mentor's job to tie the subject to the learner's interest in order that they are ready to move on to self-exploration.

Although some students feel overwhelmed by the task of posing their own question(s), most students feel empowered and excited about the idea of investigating their own area of interest. Some students find searching for their deep-seated, soul searching interest liberating and even therapeutic in the way to discover the undiscovered self, which is a key aspect of student-centered pedagogy: the student controlling the content. Once a topic is decided upon, students immerse themselves in the existing literature in the disciplinary community. During this phase, students rarely contact me for help. Students typically review dozens of relevant research articles, and engage in affirming, expanding, critiquing, or

disputing the previous scholars. Making sense of their personal interest in the context of the scholarly community provides students with an opportunity to rethink, modify, revise, or revamp their research question.

While the literature review phase is more independent, designing the research requires considerable consultation with the mentor. Many students of mine frequently check with me if their chosen method is appropriate or even feasible. Even students who have a full grasp of social science methodologies often need to consult with me. While students decide on the most suitable methods, the decision is not mechanical. Through the process of designing their research, students constantly engage in self-reflection on their research question and on their self, which of course reflects the student-centered pedagogy.

Third: Teacher's Role. Student-centered pedagogy views the teacher's role as minimal interference, as someone who guides students through the process. In student-centered pedagogy, the teacher rarely deposits any knowledge for learners to memorize or digest, but facilitates the learner's learning as a side-stepper. When students consult with me, I remain as side-stepper. When my students asked for guidance for determining their topic, I ask back what their interests are or passion, and introduce a journal or two which contains a wealth of exemplary research around the student's area of interest. In this task, my job is not to give a topic to the student, but to facilitate their self-thinking. The teachers role as facilitator is similar to the teacher's role in Freire's critical pedagogy. Mentors have to follow the student's inquiry throughout the journey in order to provide constructive feedback (Brown, Daly, & Leong, 2009).

Mentors' emotional support is important. During a long and arduous journey of dissertation writing, students often feel frustrated, anxious, and overwhelmed, and throughout that journey they need emotional support. One student, in my experience, broke down and cried, saying to me that she felt that her inquiry did not go anywhere, and she would like to start all over. Another student had trouble accessing the data she wanted, and felt as if she had to start all over by changing the topic. Some frustrations come from students' own inability to progress, and some frustrations come from their skepticism of achieving a doctoral degree. Several research studies in the literature have stressed the importance of a mentor's emotional support, as intellectual growth is not separated from emotional growth. However, tension between the professional role as an academic and the personal role as emotional supporter can also sometimes occur (Lee, 2008). When students become personally sufficiently attached to their mentor to share their personal life such as family-related problems of illness, death, or depression, this bond forces the mentors' professional role into ambiguous territory.

Fourth: Responsibility of Learning. For an overwhelming majority of doctoral students, writing a dissertation is their first concrete research experience, and the first experience of persistently engaging in intense intellectual activity. Many find this journey empowering and inspiring, although at the same time extremely arduous, but are willing to take ownership of their knowledge acquisition. Where does this sense of ownership come from? It comes from the fact that the research questions are intimately tied to their personal self. Dissertation research starts with a single burning question in which the learner has some emotional investment. The cognitive and affective domains of learning are inseparable. In fact, many doctoral students pick a topic that stems from personal experience. For example, one student who was interested in the faculty's racial awareness shared her personal story of

how she was disturbed by the many racially unaware faculty members around her, and her troubled mind compelled her to investigate the topic academically. Another student, who researched about single-mother students, shared her personal story that she herself was a single mother, hence her passion for the topic. Such students tend to commit themselves to their research, as if research is a means to quenching their thirst for knowledge or action.

The fact that a learner's research is driven by their own personal interest provides the epistemological backbone of student-centered pedagogy. Starting from their intrinsic interest, the learner engages in problem-solving inquiry. Their interest can spread to a new area, which then in turn leads to another new area, and so on and so forth until the learner solves the problem. For example, a student of mine who researched minority students in college stumbled upon the concept of cultural racism, and started digging into the concept, and devoured relevant readings. She found the journey liberating, and felt she had finally found her passion. In this mechanism, learning is not forced or externally motivated. Learners are actively involved in their own learning and naturally take on responsibility for their learning. Learning happens as a natural instinct, so they are willing to that extra mile to find resources and, where necessary, help.

Fifth: Evaluation. Self-evaluation is the cornerstone of student-centered education. It would not be a truly student-centered pedagogy if students' knowledge was evaluated according to the standards and expectations of teachers. In the case of dissertation supervision, a sense of self-scrutiny is gradually developed. At the beginning stage, students frequently ask for expectations to be set by their mentor and then work to meet the expected format. However, as students' own investigation seasons, and they become experts of their particular area of study, they rely less and less on the mentor's expectations and become more and more independent as a result. More often, students in fact become more knowledgeable than their mentor in their particular area of research. They become better versed at the relevant literature, and better able to handle the data. This is especially relevant when a student conducts an ethnographic fieldwork, as it is the student who has the full grasp of the context under which the study is conducted. Mentors are often intellectually challenged by their students. In the interviews conducted by Halse and Malfroy (2010), one interviewee said that the principal joy of doctoral supervision was the opportunity to advance their own scholarly expertise.

Dissertation-writing students are often equipped with insider insight. In many cases, students are able to reject their mentor's comments or suggestions in a constructive way. When they receive comments and suggestions from their mentor, they are able to discuss which comments should be incorporated and which to reject, and which do not make sense and why. They engage in constant monitoring and examining of their own progress. They share their self-evaluative feelings, such as "I don't feel good about my writing," "I did not make good progress," or "I am not happy with my writing."

Pedagogical Challenges of Doctoral Mentors

Are all doctoral students willing and able to engage in student-centered learning? In my experience, some students are ready to undertake independent thinking or meta-cognitive activity, and to use their mentor to their advantage. However, others are naïve enough to believe that they are expected to just follow certain procedures, i.e., step-by-step instruction assigned by their mentor. Once they realize they are unable to handle meta-cognitive mental activities, they become overwhelmed and some end up blaming their supervisor/mentor.

This occurs because of a mismatch between their expectation and the nature of the study: They perhaps did not sufficiently realize or comprehend that dissertation research involves independent higher-order thinking.

Independent thinking is required at almost every step of a dissertation, so it is vital that faculty help students transition to independent thinking (Gardner, 2008). It is also important for students to be rightly informed of the nature of research work at the doctoral level. When students do not reach the intellectual maturity and readiness to engage in such higher-order thinking, mentorship backfires. For example, some students have asked me to choose a research topic for them, and others have asked me to generate a list of articles for them to read. Some have shown me an annotated bibliography and then asked me how to convert it to a synthesis of the literature, whilst some have even brought raw interview data to me and asked me to come up with themes. When I explained that these are all aspects of their job as researchers, some have become upset, complaining that I am not "helping" them. Some struggle in mastering the necessary concepts of the research community (e.g., statistical knowledge), and some have a hard time comprehending the methodological foundational knowledge of research. As Evan and Pearson (1999) stated, doctoral supervisors should serve as gate-keepers to ensure that their students are sufficiently qualified to carry out independent thinking.

It is not only readiness but the level of commitment that matters in the effectiveness of student-centered pedagogy. The level of commitment to their research varies depending on the student's motive for pursuing a doctoral degree. Some entered the program just as a requirement of job advancement or as a qualification for a prospective new job. When students' motivation for research comes from such external factors, they tend to do the minimal requirements, just for completion of the degree program. Students driven by intrinsic motivation tend to more seriously engage in the production of knowledge. In the former case of students, it can be hard to implement student-centered pedagogy.

Student-centered pedagogy is based on a radically different epistemological assumption than the traditional instructional condition. Knowledge is not to acquired by a learner, but is utilized by learners on their own intellectual quest. It is a liberating and empowering way to deeply engage with knowledge. It is not clear from my experience at what point independent thinking is fostered. Is that something that mentors can foster *during* the doctoral journey, or is that a prerequisite skill that students should bring to the doctoral program? More empirical research is needed to figure out the specific strategies of fostering, and what exactly helps students achieve intellectual autonomy.

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