

Socialization and Cognitive Apprenticeship in Online Doctoral Programs

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Abstract: Research to date on the effectiveness and popularity of online doctoral programs has looked largely at either quantitative measures of student satisfaction or of administrative effectiveness and design. This qualitative study reports findings from four online doctoral programs in one UK university. We analyse the data through the lens of cognitive apprenticeship to help us better understand the individual trajectories of students in the thesis portion of their programs.

Research background

The claims of effectiveness and quality of online/distance education programs are often based on generally perceived advantages of technological affordances such as accessibility, flexibility, or interactivity rather than issues concerned with pedagogical goals, such as providing opportunities for online/distance students with enculturation of scholarship, who normally do not experience research apprenticeship typically enjoyed by on-campus students (Brett, Lee, & Oztok, 2016). Two of the most common perspectives on this research that appear in the current literature are: 1) student experiences of or satisfaction with their online/distance post-graduate program (Bolliger & Halupa, 2012), and 2) administrative or institutional reviews of the process and outcomes of the planning, design and implementation (Kumar & Dawson, 2012). A growing number of enrolments in the program is often considered as primary evidence of program success. Here, we use the term *socialization* to conceptualize both the implicit and explicit processes by which post-graduate students acquire the knowledge and skills necessary for their scholarly development and professional career (Brett et al., 2016). In order to examine and articulate how socialization happens throughout online doctoral studies, we also use the notion of *cognitive apprenticeship*. We define and explain how we are using these terms in more detail in the following section.

Theoretical framework

Post-graduate education

Post-graduate education, particularly at the doctoral level, is traditionally characterized as an apprenticeship in which students are learning the practice of research by working with supervisors and peers. According to Lave and Wenger (1991), learning occurs through various apprenticeship arrangements through a relational process of legitimate peripheral participation: “activities, tasks, functions, and understandings do not exist in isolation; they are part of broader systems of relations in which they have meaning. These systems of relations arise out of and are reproduced and developed within social communities” (p. 53). The community, Lave and Wenger assert, implies “participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities” (p. 98). However, the ways in which scholarship is learned in face-to-face spaces cannot simply be applied to online programmes. Online/distance programmes are not naturally built on these principles and thus the range of experiences needed for the apprenticeship model of learning may become decontextualized due to the lack of sense of research group.

Cognitive apprenticeship

In this model, learning is about acquiring domain-specific methods through a combination of observation, coaching, and practice. The concept of cognitive apprenticeship is built on these principles but it goes beyond practical skills and focuses on cognitive skills in two distinct ways:

First, the term apprenticeship emphasizes that cognitive apprenticeship was aimed primarily at teaching the processes that experts use to handle complex tasks. Like traditional apprenticeship, cognitive apprenticeship emphasizes that knowledge must be used in solving real-world problems. ... Second, the term cognitive emphasizes that the focus is on cognitive skills, rather than physical ones. Traditional apprenticeship evolved to teach domains in which the target skills are externally visible, and thus readily available to both student and teacher

for observation, refinement, and correction, and bear a transparent relationship to concrete products. (Collins & Kapur, 2014, p. 110).

Cognitive apprenticeship, thus, is concerned with knowledge required for expertise: not only learning subject matter specific concepts, facts, and procedures but also acquiring nuanced knowledge about how to learn and when to apply, new concepts, facts, and procedures.

Socialization in graduate schools

It refers to the “process through which individuals gain knowledge, skills, and values necessary for successful entry into a professional career requiring an advanced level of specialized knowledge and skills” (Weidman, Twale, & Stein, 2001, p. iii). Socialization into graduate school requires different level of understanding and commitment depending on individual needs, goals, profession, and the nature of the discipline.

Methodology

This study was conducted in 4 different online/distance doctoral programs in a UK university. 22 students agreed to participate in a semi-structured interview. Here, we summarize our initial findings due to limits.

Findings

Students seemed to internalize their isolation as a natural process for their development as a researcher or scholar. The *personal nature of the doctoral thesis* was the main theme in their explanation of the doctoral education. However, the concept of cognitive apprenticeship posits that through participating in communities, students not only learn subject matter specific concepts and facts but also acquire knowledge about how to learn new concepts, facts, and procedures. Unfortunately, our results indicate that students lack enculturation in the principles of cognitive apprenticeship. This lack of enculturation is manifest in how they internalized their isolation as a natural process inherent in the doctoral work. The result is that they are inaccurately equating the unstructured and personal nature of the thesis work with the experience of working alone which has resulted from the lack of program structure at this phase of the doctoral journey.

Discussion and conclusion

Despite the inconclusive nature of our findings, it is evident that we have to rethink the theory and practice of online/distance post-graduate education. We need to think differently about traditional notions of apprenticeship. Perhaps, the first step towards a more effective direction is to focus less on quantitative measures for *success*, like enrolment statistics or graduation rate but rather to employ qualitative judgements of the post-graduate experience. What might be the guidelines for such qualitative judgments? The answer may lie within the principles of the learning sciences: knowledge is distributed across individuals within the environment. That is, learning is not an in-the-head phenomenon but a matter of engagement with, participation in, and membership to a community (Oztok, 2016). It is through this notion of learning that we may develop a more effective framework to reconceptualise the theory and practice of online/distance post-graduate education within the cognitive apprenticeship model of learning.

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