What’s Your Epistemology?: Quiz Design as a Pedagogical Tool in Library & Information Science Doctoral Education

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ABSTRACT
We propose that collaboratively developing a quiz that identifies individuals’ epistemologies is an effective way to meet critical pedagogical ends in Library & Information Science (LIS) doctoral education. As a case study, we recount the process of creating and sharing one such quiz in a recent research design course at our home institution. Posted to various social media outlets in March 2015, this quiz has since been taken over 25,000 times and has a 69% completion rate. The pedagogical impact of this tool has thus extended far beyond a single classroom.

We evaluate the current LIS PhD research methods and design course requirements of programs in North America to contextualize our arguments regarding the value of quiz design as a pedagogical tool. Using an activity theory framework, we suggest a plan for productively employing quiz design in relevant doctoral courses. Ultimately, we contend that the process of designing and implementing an epistemology quiz can help LIS faculty teach a complicated subject matter to beginning researchers. Further, the quiz can help LIS doctoral students to (1) make sense of methodological differences, (2) engage in epistemological perspective-taking, and (3) fruitfully negotiate epistemological and methodological disputes with colleagues.

Keywords
Methodology, Research Design, LIS Education, Pedagogy

INTRODUCTION
The vast majority of LIS doctoral programs in North America require that students learn about research methods as a part of their training. However, little has been written about the specific pedagogical tools that instructors can use to teach students about theories of knowledge—or epistemologies—that inform and constrain overall research design. Using a case study from our home institution and an activity theory framework, we propose one such pedagogical tool: the collaborative construction of an online quiz that helps individuals identify their epistemologies.

EPistemology QUIZ
Doctoral students at our home institution, the University of Illinois, Urbana-Champaign, are required to take two research development courses. One course, Research Design in LIS, addresses research project development rather than focusing on specific methods. As such, the course emphasized the significance of students’ epistemological commitments to their research questions and how they go about answering them. Students in the spring 2015 term were introduced to the epistemologies of positivism, post-positivism, structuralism, hermeneutics, critical theory, and postmodernism as presented by David Baronov (2012). Students also read Anne Sigismund Huff (2009) on the various elements that constitute particular epistemologies (e.g. what is “truth,” what type of research tools should be used, the role of researcher bias, and so on).

Design & Development
The instructor for “Research Design in LIS” proposed that the class work together to create an online quiz focused on helping individual researchers identify their epistemology. The quiz would use individuals’ attitudes towards research as a proxy measure for their epistemological stance. Similar to the type of personality quiz one might find on Facebook or BuzzFeed, it was suggested that creating an epistemology quiz would achieve the goals of (1) providing a tool that researchers could use to help them identify their personal research epistemology; (2) create a peer-to-peer environment where students could work in small groups and feel safe to admit to difficulties with particular epistemologies.

The instructor initiated the quiz design process in this class by suggesting that the group determine a researcher archetype for each epistemology. The class identified a total of seven archetypes. The instructor then worked with students to develop seven main questions for the quiz. Each question addressed a specific element of a research epistemology. Students were then asked to work in groups
of three to identify seven responses (one for each type of epistemology) to go with an individual question assigned to them. Students also worked on the answers for each question outside of class time via a shared Google doc.

Each student then provided a write-up for one of the epistemology types, which was reviewed by others in the shared document. One student worked with the instructor to finalize the quiz content and to post it online.

**Opening Screen Shot of the Epistemology Quiz**
(http://tinyurl.com/LISepistemology)

**Example of an Epistemology Result (Postmodernist)**

**Example of a Type of Question on the Quiz**

**Social Media & Results**

The final online quiz was assembled using a free version of Qzzr.com. Once the epistemology quiz was finished students were asked to share it via the link or on their Facebook accounts. The initial quiz results were discussed in class and students reported being excited to talk about epistemology types with their friends and colleagues. Students also reported having a better understanding of their own epistemology after taking the quiz and discussing their results with others. Most said that their results seemed accurate to them, those some students --having taken the quiz multiple times --discovered that they alternated between two different epistemologies. This is one indication that the quiz is limited as a measure of hybrid or pluralistic epistemologies: at best, it reveals the dominant epistemological commitments of the quiz-taker at the moment the quiz was taken. Understanding that this is the case may count in favor of completing the quiz at various intervals over the course of one’s PhD program.

**PEDAGOGICAL VALUE**

In order to contextualize our claims regarding the value of epistemology quiz creation, we conducted an environmental scan of research methods and design course requirements in LIS doctoral curricula. In addition to students needing to learn specific qualitative and/or quantitative research methods, we wanted to identify programs that required students to learn about research design. Whereas methods
courses teach students the micro-level tools needed to conduct research, design courses focus on the macro view of teaching students how to understand how their theory of knowledge and ethical worldview shapes their choice of research questions and the methods used.

We consulted two sources (ALA, 2015; iSchools, 2015) to formulate our initial list of programs. Our review yielded 36 LIS doctoral programs for which we evaluated course requirements based on the title of the course listed. This process revealed that 94% of programs required at least one course in research design and/or methods. The slight majority (58%) appeared to offer at least one required course that was not solely methods specific. Just over half (57%) of these courses used the word ‘design’ in the title. Of the 36 programs surveyed, 33% required that PhD students complete research methods only courses. This environmental scan suggests that most LIS PhD programs highlight the importance of students learning research methods, but a significant number do not specifically target research design. It is likely students are learning research methods without learning about their epistemology. This imbalance may contribute to the production of research hindered by inappropriately selected methods (e.g., a project that exclusively uses a quantitative method like statistical analysis to answer a distinctly qualitative question about the hidden power dynamics of a given practice).

**Activity Theory Framework**

We use an activity theory framework to explicate and maximize the pedagogical value of epistemological quiz design for LIS. Activity theory posits that “conscious learning emerges from activity (performance), not as a precursor to it”; activity is itself then “the most appropriate unit of analysis” (Jonassen & Rohrer-Murphy, 1999, p.62). In our model the activity is quiz design. This comprises a chain of actions (i.e. reflective acts) which includes delimiting the range of epistemologies/thinkers represented and developing questions pertaining to those epistemologies. The object of the activity is an understanding of diverse epistemological commitments and how those commitments link up to form substantive theories of knowledge.

**CONCLUSION**

Epistemology quiz design is an activity with pedagogical value for the LIS research design classroom and beyond. To demonstrate this, we will present our research in an interactive way that is consistent with the overarching educational objectives of this project. In addition to the visuals presented on our poster we will also provide tablets that poster session attendees can use to complete the quiz onsite while interacting with the presenters. We hope that this will help spark a critical dialogue about conference attendees’ reactions to the quiz and their results. Lastly, in this poster we will suggest future research to address the lacuna in the LIS literature on research design instruction at the doctoral level.

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**REFERENCES**


