Making Information Literacy Flexible and Re-Mixable: Instructional Designers and Librarians Collaborate in the Canvas Learning Management System

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It is a time of reinvention in information literacy and library instruction. To be sure, instruction librarians have always been filling their classrooms with experimentation. We've adopted active learning strategies, informed ourselves about learning styles, used a flipped classroom, given considerable thought to assessment, created problem-based learning opportunities, and we've worked to become reflective teachers. In online spaces, we've been working with instructional designers, using video, learning tutorials, and learning management systems to accomplish instructional goals. But to date, much of this reinvention has been incremental. The core ideas that have been the foundation of an instruction librarian's work (documented in the Association of College and Research Libraries' *Information Literacy Competency Standards for Higher Education*, 2000) have persisted until recently. Also unchanged in the last 15 years is the one-shot instruction session as the predominant form of IL instruction and the role of the librarian as primary champion for said instruction. These are the two pillars I am seeking to challenge.

Moreover, now is the perfect time to experiment with big ideas. There is a recent burst of energy provided by the introduction of the *Framework for Information Literacy for Higher Education* (2015; hereinafter the *Framework)*. There is the instruction librarian, repeatedly challenged to do more with less, facing burnout, exhaustion, and impossible odds. Finally, there is unprecedented access to high-quality, shared instructional content.

In this conference session, the idea that I am exploring is as follows: What happens if instruction librarians truly become the guides on the side, designing learning experiences, but letting faculty implement and own those experiences as the primary instructor? Using Wiggins & McTighe's (2005) *Understanding by Design* model, I will walk you through the instructional design process to create flexible and remixable online learning modules. (Alongside the work of Meyer and Land and their idea of threshold concepts, Wiggins & McTighe's work in *Understanding by Design* informed the creation of the *Framework*.) We will explore remixing and adapting modules to different learning contexts. Finally, we will examine the validity of the modules as a learning experience and I will present preliminary results of using this approach at Montclair State.

Background

As the Online and Outreach Services Librarian at Montclair State University, located in New Jersey, I liaise with the 5 full-time instructional designers on campus, who offer instructional design support in online and hybrid courses as well as in face-to-face courses.

Over the summer of 2015, I began meeting with two instructional designers about teaching IL online. We had high aspirations. We wanted to create inquiry-based, realistic research scenarios that could be embedded as modules across a wide variety of disciplines using the Canvas learning management system, in place at the university for just over a year. We wanted to utilize simple learning materials and allow faculty to customize modules for their specific courses.

Identifying Desired Results

Working within Wiggins & McTighe's backwards design, we began by figuring out where we wanted students to end up. Instead of focusing first on the content to be taught or the activities to use, the design process began with thinking about what students should learn instead of how it would be taught. "Our lessons, units, and courses should be logically inferred from the results sought, not derived from the methods, books, and activities with which we are the most comfortable" (p. 14). Wiggins & McTighe call this stage of the design process "Identifying Desired Results" or "what students should know, understand and be able to do?" (p. 17). This is likely a familiar activity to most instruction librarians, since we often design learning outcomes for a single instruction session or when mapping IL to an academic program. In both situations, you are working backwards by first defining the desired end result.

Figure 1: Wiggins & McTighe's Three Stages of Backwards Design

1 Identify Desired Results

2 Determine Acceptable Evidence

3 Plan Learning Experiences and Instruction
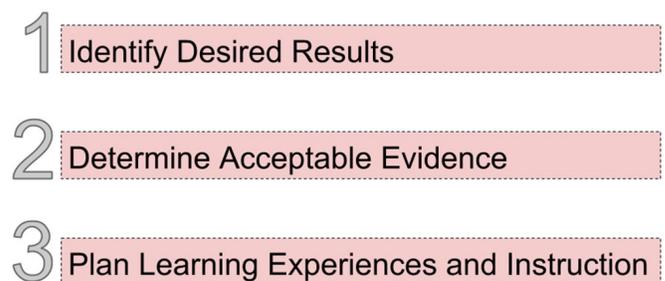
UbD: Stages of Backward Design

Big Ideas

Wiggins & McTighe use the term "Big Ideas" to describe ideas "at the 'core' of the subject."

> They need to be uncovered; we have to dig deep until we get to the core [...] ideas that are the hard-won results of inquiry, ways of thinking and perceiving that are the province of the expert. They are *not* obvious. In

fact, most expert big ideas are abstract and *counterintuitive* to the novice, prone to misunderstanding. (p.67).

Big Ideas are for teachers. If you put up all of your Big Ideas on a slide for your students, they would likely carry little meaning. Big Ideas are useful to you the instructor to frame your approach to your instruction and inform your instruction content (p. 75).

Though not explicitly stated in the *Framework*, the six frames can be understood as the Big Ideas of IL that instruction librarians seek to help students uncover. To use the words of Wiggins & McTighe, they are: "abstract", serve as "linchpins" for understanding, and are arrived at "slowly, via teacher-led inquiries and reflective work by students" (p.66-67). Without the grounding of Big Ideas, students are "easily left with forgettable fragments of knowledge" (p. 66), the end-result of many one-shot library instruction classes, to be sure. Seen as Big Ideas, the frames help librarians establish the 'so what' of IL teaching and can help to tie together these knowledge fragments that skills-based, outcomes-driven instruction have created.

Figure 2: What are Big Ideas?

What are Big Ideas?

Wiggins and McTighe:

- Umbrella concepts
- Essential for understanding
- Core, but not basic
- Often abstract
- Not obvious
- Need to be uncovered
- Conceptual anchor for further understanding
- Timeless and universal

"Big ideas *cannot* be grasped through telling and reading alone and are likely to be misunderstood when first encountered."

-- Wiggins & McTighe

Essential Questions

Wiggins & McTighe posit the use of "Essential Questions" as "signposts to big ideas" (p. 106). They are the "doorways through which learners explore the key concepts, themes, theories, issues, and problems that reside within the content" (p.106). Similar to Big Ideas, Essential Questions should be: timeless and recurring; provoke discourse; represent core knowledge in a discipline; aid students in understanding complex ideas; and engaging for your students (pp. 108-109). Consider the question: "How do you recognize a peer-reviewed article?" While many librarians would readily agree that answering this question is an essential skill, it is also a question unlikely to provoke an exciting and engaging discussion.

For this stage of the design process, we drew partly from the Disposition statements offered in the *Framework* and turned some of them into Essential Questions. Those familiar with problem-based learning know how effective it

can be to organize lessons and student learning around problems posed as questions.

Figure 3: What are Essential Questions?

What are Essential Questions?

Wiggins & McTighe:

- Have no simple 'right' answer; meant to be argued
- Designed to provoke and sustain inquiry
- Address conceptual/philosophical foundations of a discipline
- Raise other important questions
- Naturally and appropriately recur
- Stimulate vital, ongoing rethinking of big ideas, assumptions and prior lessons

Gathering Evidence and Making an Evidence Scrapbook

The second stage in Wiggins & McTighe's model is probably the greatest departure from how you might normally work as a teacher. In the second stage, you do not begin by designing activities that you hope will allow students to understand the Big Ideas and explore the Essential Questions that you have established. Rather, you pause and consider evidence of the desired understanding (p. 146). What evidence will persuade *you* that your students have grasped a Big Idea, uncovering new understanding for themselves?

This can be a challenging phase of the design process, but Wiggins & McTighe introduce an important metaphor that makes it easier: think of assessment as an evidence scrapbook. The scrapbook is exactly what it sounds like: a collection of assessments, gathered throughout the instruction that provide a bigger picture of the student learning that has (hopefully!) occurred. You don't need to design a single silver bullet assessment that does its job perfectly. Rather, design multiple assessments that, when viewed together, paint a picture of how well the desired understanding is being achieved. The scrapbook approach allows you to assess small stuff (what previously you might have assessed as a knowledge fragment), but helps you keep in mind the assessment of the Big Idea. This is also where your work developing Essential Questions can help. For example, if you determined that the question *What is an expert?* was essential to understanding the Big Idea *Authority is Constructed and Contextual*, you could use this question to help you figure out what kinds of evidence you would ideally like to see your students produce.

Validity

In the context of learning and assessment, validity means the extent to which an assessment is actually measuring what it sets out to measure. The inferences you make about student understanding, based the evidence you gathered from the assessment, must be sound. This is arguably the most difficult aspect of assessment and it can make the difference between a student simply going through the mo-

tions of completing an activity and truly creating new understanding.

We decided to gather evidence that required students to comment and reflect on their research experiences and choices (e.g., plans for incorporating a source into an assignment, such as a discussion post, a short assignment, or a one-minute paper—see Figure 4). Mindful that such assignments can be more time-consuming for an instructor, we also made an effort to design short quizzes with questions we felt would provide valid evidence of understanding.

The reader is also invited to review Wiggins & McTighe's discussion of validity and rubrics, a topic we have left for future exploration.

Planning Learning Experiences: Content is No Longer the Center of Attention

Once Big Ideas and Essential Questions had been explored, and some thought given to acceptable evidence (if not perfected), work began creating and curating content and activities that aligned with the ideas and questions and would lead to acceptable evidence. As previously stated, we wanted simple learning materials, such as embeddable slideshows and videos, webpages, short and self-marking quizzes, and discussion boards—all familiar to most instructors (many of us have materials like these already developed). Essentially, we were creating a little IL storehouse. Even if the original goal of the project remained unachieved, we felt this resource alone could serve the instruction team. (Visit https://montclair.instructure.com/courses/65727 to see a modified, public version of the modules. Interactive components have been translated to static webpages in order to display correctly.)

The instructional designers emphasized that both students and faculty would prefer interactive content over static content, so we modified some materials from static web pages to clickable slideshows and quizzes. (Quizzes were not only for traditional assessment, but also to provide interactive, click-through learning materials. Quiz answers were annotated so that students would receive almost immediate feedback—see the *Information Needs and Types* quiz).

It was desirable and necessary to find content and activities created by and used at other academic libraries. This saved considerable time and effort overall since there is a wealth of blog posts, videos, learning object repositories and IL books that provide excellent material.

Early Implementation and Reception

As faculty requests for library instruction were submitted in the Fall/Spring of 2015/16, I approached 15 different instructors who had requested a one-shot session, inviting them to use some of the modular content as a supplement. I ended up working with 13 instructors, embedding modules into multiple sections of the each of their courses. Most of the courses were Introduction to College Writing, but we also embedded modules in two political science courses, an educational leadership course and a graduate counseling course. In addition to this, 9 other instructors were added to the private Canvas community where the modules reside and made use of the learning materials without having a face-to-face (F2F) library instruction session. Several of these instructors made use of the modules in fully online or hybrid courses.

Anecdotal feedback from faculty has been positive and enthusiastic. Several faculty requested additional modules

Figure 4: Acceptable Evidence

on other topics (*How to Choose a Book/Scholarly Article*) and some even offered materials that they thought could be included. Some faculty incorporated the modules into their courses as-is; others took the initiative to re-mix and modify the modules to better fit their courses. Faculty liked the interactive nature of the material and being able to place it at exactly the right moment during the semester.

The One-Shot: Not a Place for Big Ideas

Outside of F2F teaching, I regularly interact with students in research consultations and in usability testing. In both activities, I am reminded of the stark disparity between the reality of what many students know and moreover what they apply about information and research and the lofty goals I have when I enter a classroom for a one-shot library instruction session.

If we are going to embrace the Frames as the Big Ideas in IL instruction, and design learning experiences that help to collect an evidence scrapbook of student learning, the one-shot cannot be the primary space for this to happen. It is understandable that this is a quite uncomfortable notion for many librarians who have figured out how to teach to and assess the Information Literacy Standards within the confines of the one-shot session.

The place to work with the Frames as Big Ideas, then, is in an embedded context. But what do we mean by "embedded"? Schulte's 2012 review of *Embedded Academic Librarianship* uncovers the multiple meanings of embeddedness in academic librarianship, ranging from resource linking and librarian participation in the course management system to designing courses/assignments collaboratively with instructors to in-depth research support for students and faculty. Schulte also notes that *embedded* has also been used to describe how one delivers IL instruction, online or in-person. She concludes that embedded librarianship has been used as a means to "engage" faculty and students (p. 134). Schumaker (2012) equates embedded librarianship with the embedded librarian, one who is "fully integrated into a community. He or she forms strong working relationships with others, shares responsibility for the achievement of common goals, and makes a specialized contribution by applying advanced professional information competencies" (p. 18).

In both cases, I question the sustainability of this type of embedded approach if it is ever to be considered more than a patchwork solution, successful where personal relationships between faculty and librarians thrive, and non-existent elsewhere. In other words, I question the very notion of this type of embeddedness, based on the idea of a personal librarian. There will never be enough librarians employed at a given institution to perform this kind of embedded work across the board. Embedding ourselves personally into the classroom may not be sustainable, but embedding our Big

Ideas and Essential Questions, I propose, promises to be an ambitious yet far more achievable and impactful endeavor.

Conclusion

In *Toward a Kairos of Library Instruction* (2014), Drabinski summarizes the external pressure of the Association of College and Research Library Information Literacy Competency Standards that focus the teaching librarian "outward rather than inward" (p. 481). Given this pressure it is easy to see how librarians have become preoccupied with learning outcomes, activities, and assessments that respond directly to the standards instead of to the students. She argues that librarians can "refocus pedagogical attention on the teaching situation rather than the externally-defined standards that produce the pedagogical situation in the first place" (p. 485) and warns against utilizing the *Framework* in the same externalizing way.

The importance of putting the student back at the center of our IL instruction is clear. In regards to replacing the one-shot with integrated, modular, primary instructor-driven instruction in order to accomplish this, many questions remain unanswered. It is clear, however, that librarians are capable of shifting their role to an instructional collaborator (a more realistic goal given the ratio of librarians to faculty vs. librarians to students on most campuses). It's also clear that there is potential for flexible learning experiences that allow students more time to uncover Big Ideas and grapple with Essential Questions throughout a semester, rather than during a one-shot library instruction session.

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