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Faculty Teaching and Librarian-Facilitated Assignment Design

Rachel Wishkoski, Kacy Lundstrom, and Erin Davis

abstract: This qualitative study explores the impact of a workshop on collaborative research assignment design that brought together an interdisciplinary group of faculty in a librarian-facilitated community of practice. Faculty participants attended the workshop, revised and implemented their assignments, and completed a follow-up interview. Themes that emerged reflected shifts in faculty teaching practices, including increased scaffolding, clarity, modeling, student collaboration, and opportunities for authentic learning. Gaining insight into how faculty approach the work of teaching directly impacts library instruction and how librarians can contribute to communities of practice among teachers in the academy.

Introduction

In her 2013 plenary address at LOEX (Library Orientation Exchange), Barbara Fister made a series of what she called “outrageous claims” designed to spur reflection and disrupt some common practices of academic librarians. Her sixth claim was that “librarians should spend as much time working with faculty as with students,” arguing that this “collaborative work is critically important,” albeit difficult given the busy and sometimes unpredictable nature of faculty schedules.¹ In her discussion, Fister deemphasized the one-shot instruction negotiations that tend to constitute much librarian-faculty conversation. She focused instead on multidirectional, librarian-facilitated dialogue as the ideal. Librarians should strive to “provid[e] faculty a place to discuss their pedagogy, to share ideas, to learn from one another,” Fister argued, because

faculty appreciate opportunities for conversation. By all means, [librarians need to] be prepared with ideas, with suggestions—but let the questions and ideas bubble up from the conversation. This work we do needs to be a common cause. Any chance we have to

give faculty space to think will pay off—potentially far more than those chunks of time we coax out of them for us to meet with their students.²

Fister positioned librarians as ideally inhabiting the triple roles of convener, participant, and facilitator. She suggested a definition of faculty learning as knowledge sharing and

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creation through dialogue in a community united in “common cause.” Her comments also implied a need to disrupt the solitary practices that still pervade higher education and isolate the work of teaching to individual faculty members.

While many librarians recognize the value of working with faculty, partnering on research assignment design requires a level of collaboration that can be difficult to achieve. The Utah State University Libraries in Logan benefits from strong partnership on assignment design in our English composition general education courses and in two to three library instruction sessions with each section. Subject librarians provide instruction in key disciplinary courses (usually one or two session sequences) with varied degrees of input on assignments. Nevertheless, given our model of information literacy (IL) and liaison librarianship at Utah State, opportunities for deep collaboration with faculty in the assignment design process are rare.³ Often, consultation with a librarian happens only after course assignments are written and syllabi set. This is a common challenge in academic librarianship; librarians are used to fielding the familiar request for a “library day” with a laundry list of research skills to cram into a 50-minute session.

Barbara Junisbai, M. Sara Lowe, and Natalie Tagge posit that “faculty-librarian collaboration on assignment and syllabus development, followed by one or two strategically placed library class sessions, produced the greatest gains.”⁴ They conclude that this is

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good news for librarians tasked with unsustainable instruction demands. Librarians welcome any role that they can play in improving assignments and courses to carefully scaffold research skills, providing sufficient supports when the skills are first introduced and then removing the supports as students no longer need them.

To engage with faculty in ways that produced these “greatest gains” and foster the dialogue Fister considers so important, the Utah State University

Libraries seized an opportunity to offer a compensated workshop on collaborative assignment design for faculty in fall 2016. The workshop was funded through a Curriculum

Innovation Grant from the provost. This full-day workshop—driven by the overarching goal of creating more engaging and innovative ways for students to learn research skills—brought together an interdisciplinary group of faculty and librarians. With \$500 compensation for participants as incentive, we required self-reflection and action before and after the workshop itself. Faculty participants attended the workshop, revised and implemented their assignments, and participated in a follow-up interview to discuss their experiences. The depth of participants' reflections on their teaching practices is evidenced by the faculty quotations in this paper, and the revised assignments ultimately impacted over 700 students from this single workshop cohort.

The workshop relied on a format called a *charrette*, a small brainstorming group intended to deliver quick feedback. The charrette format was developed in the context of assignment design by the National Institute for Learning Outcomes Assessment, a project based at the University of Illinois and Indiana University that works to use assessment data to improve undergraduate education.⁵ Participants were placed in small groups with a librarian facilitator (24 academic faculty, 7 librarians). After reviewing their peers' research assignments, faculty participants received and provided feedback in the charrettes. The workshop thus gave librarians a role in responding to assignments and provided the space and opportunity for faculty to draw upon one another's expertise. Our project had several purposes, including to facilitate a community of practice in which faculty could interact with one another to learn to do their work better. The community of practice would include librarians as contributing participants in teaching and learning. We also wanted to gain another perspective on faculty's approaches to teaching in order to support them better. A forthcoming article in *Communications in Information Literacy* details the logistics and discusses the advantages and challenges of claiming a space for librarian leadership in assignment design.⁶

This paper will present a qualitative exploration of faculty approaches to teaching via interviews with members of our first workshop cohort. What did we as librarians glean from talking about teaching with our faculty in a new way? How did developing a structure for supporting and joining communities of practice benefit faculty, and by extension, the academy?

Literature Review

Learning as a Social Process

Fister's claim about the critical work of collaboration between faculty and librarians in teaching and learning seems especially convincing in light of the literature on social theories of learning. This body of scholarship explores how, fundamentally, individuals learn with and from each other through participation and engagement in a collective effort. Though several relevant terms appear in the literature, at the core is a focus on communities of practitioners who grow through reflective dialogue. Such a group has been termed a *community of practice*,⁷ a *professional learning or development community* (of which *faculty learning communities* are a type),⁸ an *action learning set*,⁹ and a *community of inquiry*.¹⁰ Each way of conceptualizing community emphasizes different aspects of how people learn together through social participation and takes a different view of how such learning might be facilitated. The common characteristic, however, is the "sharing [of]

explicit and tacit knowledge through social learning” in a “safe, respectful, and trusting . . . environment.”¹¹ Jean Lave and Etienne Wenger coined the concept of a community of practice in the late 1980s and further developed it in their 1991 book *Situated Learning: Legitimate Peripheral Participation*. A community of practice comprises a “set of relations among persons, [shared] activity, and world, over time and in relation with other . . . communities.”¹² Three elements are required: “a *domain* of knowledge, which defines a set of issues; a *community* of people who care about this domain; and the shared *practice* that they are developing to be effective in their domain.”¹³

Wenger explains that “potential,” “active,” or “latent” communities of practice are “an integral part of our daily lives” in many domains.¹⁴ These learning communities may vary in size, scope, duration, and degree of formality (from organic to intentional). Though there is debate about the degree of overlap between concepts, faculty learning communities, action learning sets, and communities of inquiry all represent the idea of

... faculty learning communities, action learning sets, and communities of inquiry all represent the idea of communities of practice in higher education for both individual and collective growth.

communities of practice in higher education for both individual and collective growth.¹⁵ Action learning sets are similar in that they bring together practitioners, but the focus is on individual challenges rather than on team coherence. Action learning is “a continuous process of learning and reflection, supported by colleagues, with an intention of getting things done” through the alternating of action and reflection.¹⁶ Through dialogue and copresence—that is, real-time, face-to-face engagement—an action learning set engenders a feeling of learning together, even though the focus is individual application. This article describes a community of practice that most closely resembles an action learning set in the sense that participants in the assignment workshop brought their own assignments with questions and problems for the group to discuss.

Overcoming Isolation in the Academy

In his classic *The Courage to Teach*, Parker Palmer describes “academic culture” as one that “builds barriers between colleagues . . . partly from the competition that keeps us

... if educators are hindered from learning from one another to deepen their practice, educational organizations are limited in the fulfillment of their missions.

fragmented by fear [and] from the fact that teaching is perhaps the most privatized of all the public professions.”¹⁷ Paul Baker and Mary Zey-Ferrell’s survey of over 500 faculty members lends empirical support to Parker’s statement, as

captured by one respondent’s claim that “I work in splendid isolation.”¹⁸ Working in “splendid isolation” has implications not only for the individual but also for academic

institutions as well; if educators are hindered from learning from one another to deepen their practice, educational organizations are limited in the fulfillment of their missions.¹⁹

There is a paradox at the heart of any efforts to leverage the latent potential and rich resources of a community of practice among teaching faculty. Because practice and learning are responses to external and internal conditions and relations, Wenger argues, they cannot be designed, “only designed *for*.”²⁰ Communities of practice, therefore, are not entirely subject to being designed either: “They can be recognized, supported, encouraged, and nurtured, but they are not reified, designable units.”²¹ Wenger argues, however, that “there are few more urgent tasks than to design social infrastructures that foster learning.”²²

Librarians Building and Joining Communities

Many campus entities are interested in designing infrastructure that supports community learning among faculty, but gaps remain in potential endeavors and areas of interest. At Utah State, librarians identified a gap and sought to decrease faculty isolation, particularly around the task of developing and revising research assignments, a crucial stage in the teaching process. The literature describes ways in which academic librarians have created communities of practice to foster professional growth and support among themselves. For example, Robin Miller proposed communities of practice as the solution to the reference librarian’s challenge of developing robust general and subject knowledge.²³ Malia Willey and Jennifer Osborn, respectively, found communities of practice helpful in the arena of information literacy instruction.²⁴ Nora Belzowski, J. Parker Ladwig, and Thurston Miller employed the concept to help librarians build a sense of collective professional identity.²⁵

David Lewis and Judith Slapak-Barski organized a “community of faculty” to improve the design of instructional materials. This program involved faculty, administrators, staff, and instructional designers, and it first focused on a small group of “faculty champions,” who were ultimately paired as mentors with novice “pioneers.”²⁶ Tate Hurvitz, Roxane Benyau, and Megan Parry focused their faculty engagement on the first-year experience program, holding a three-session workshop for faculty. The workshop featured didactic and applied components intended to address the fact that “on most college campuses, libraries do not have enough staff to directly teach information literacy skills to all students on campus.”²⁷ The series challenged faculty assumptions, demonstrating that librarians can be collaborators in deeper ways, pushing faculty to partner “across disciplines and services to

Librarians may be the ideal conveners of, and participants in, communities of practice because our discipline is inherently collaborative.

better understand their students’ needs and better address their potential as learners and students in their own classes and beyond.”²⁸ Librarians may be the ideal conveners of, and participants in, communities of practice because our discipline is inherently collaborative. Indeed, academic librarians have a history of engaging faculty in a number of ways, from general IL workshops,²⁹ to training on designing library assignments,³⁰

to more recent work focused on course assignment design.³¹

Regardless of what they are called, the examples of faculty learning groups described here are all predicated on meaningful dialogue. Structured, reflective discussion reveals tacit knowledge as well as providing a forum for sharing explicit knowledge. As Wenger explains, in a community of practice, “articulating a familiar phenomenon is a chance to push our intuitions: to deepen and expand them, to examine and rethink them.”³² Dialogue not only promotes self-reflection but also helps newer teaching faculty enrich their practice as more experienced faculty share their expertise.

Supporting Novice Learners

Over the course of a program of study, students ideally move from disciplinary novices to disciplinary insiders.³³ Lave and Wenger call this novice positionality “legitimate peripheral participation,” pointing out that the process of learning involves increasing sociocultural participation in a community’s practices.³⁴ For students, this participation includes engaging in the discursive practices of a discipline.

Effective pedagogy entails structuring opportunities for novices to participate in disciplinary practices. Teaching, then, requires the metacognitive understanding of one’s discipline as a discourse community with implicit (or tacit) knowledge practices and conventions of communication. Lee Shulman’s idea of “signature pedagogies”³⁵ and *Decoding the Disciplines*, an approach developed by David Pace and Joan Middendorf at Indiana University Bloomington to narrow the gap between novices and experts, stress how teaching faculty can make the implicit more explicit.³⁶

Librarians are uniquely positioned to support this work. As “disciplinary discourse mediators,”³⁷ as Michelle Simmons puts it, librarians can not only help students enter disciplines but also help faculty gain perspective on tacit disciplinary practices. Librarians play a key role in supporting students on their journeys of deepening participation

Librarians play a key role in supporting students on their journeys of deepening participation in an academic discipline ...

in an academic discipline, or what James Elmborg describes as “the process of negotiating between the knowledge community of the discipline and novices who want to join that community.”³⁸

Methods

To create dialogue among teaching faculty and learn from it, we held our assignment design workshop in December 2016 with 24 interdisciplinary participants. Sixteen participants focused on assignments to be implemented in the following semester, and eight planned for fall 2017. Table 1 provides a breakdown of the faculty cohort by college and department. Due to unforeseen changes in teaching assignments, three of the 24 participants did not implement their revised assignment or complete an interview, resulting in a total of 21 faculty interviews conducted in two phases. The first round of interviews took place at the end of spring 2017 and the second at the end of fall 2017.

Table 1.
Participants in assignment design workshop, December 2016

College	Department	Number
Agriculture	Family & Consumer Sciences Education	1
	(School of Applied Sciences, Technology, & Education)	1
	Plant, Soils & Climate	1
Art	Art History	1
Business	Management	1
	Management Information Systems	1
Education and Human Services	Family, Consumer, & Human Development	1
	Kinesiology & Health Science	1
	Psychology	1
	Special Education and Rehabilitation	1
	Teacher Education	1
Humanities & Social Sciences	English	3
	History	3
	Sociology, Social Work & Anthropology	4
Science	Biology	4
Total		24

Interviews were divided among the three members of the research team. Because the research team also served as charrette facilitators, we were intentional about interview assignments; no one interviewed someone with whom they had worked in a charrette. We also provided an anonymous Qualtrics survey in which interviewees could mention any issues or concerns they had with this setup (none were reported).

To ensure comparability between interview responses as well as consistency among members of the research team, we used a semi-structured interview protocol with 18 questions grouped into three topic areas: (1) the faculty member's revision experience, (2) student work and student experiences, and (3) bigger picture reflections. Depending on the timing of interviews in relation to the submission of final course grades, a handful of interviewees also discussed examples of student projects and common learning bottlenecks. Interviewers asked follow-up and clarifying questions as appropriate, which meant that the length of each interview varied. Interviews ranged from 30 minutes to an hour. The complete interview instrument appears in Appendix A. All but four interviews were conducted face-to-face, with the others held via phone, Skype, or interactive video conferencing (IVC). Interview transcription was done by a third-party transcription company and covered with grant funds.

Our inductive approach to coding our data began with several rounds of codebook development and testing. Rather than wait until all interviews were completed, we

developed our codebook based on the 16 interviews from spring 2017 because we were confident that the major codes would emerge from the first round of interviews. We began by coding a sample of the transcripts independently to create a preliminary codebook. Six of the transcripts were randomly selected and assigned to the three researchers for initial code brainstorming (two unique transcripts per researcher). Each researcher read each transcript three times: the first reading to become familiar with the content (no notes taken during this step); the second reading to note possible codes; and the third to refine or condense possible codes. Each researcher independently developed a hierarchy of codes consisting of higher-level “parent” codes and lower-level “child” codes.³⁹

We then reviewed range and overlap and combined and refined codes in a subsequent team meeting. We also agreed upon draft definitions of each code and its relationship to others (that is, parent or child), consulting sample codebook entries from the literature on qualitative coding methods.⁴⁰ Our final codebook had 13 child codes within 12 parent codes, all organized into five categories (see Appendix B for the complete codebook and list of coding rules).

There are varying schools of thought regarding the degree of rigor necessary in collaborative qualitative coding. We ultimately opted for the approach Johnny Saldaña describes as “intensive group discussion and simple group ‘consensus’” as the primary “agreement goal.”⁴¹ We also used the tools available in Dedoose (our coding platform) to quantify our agreement and help structure our coding process. Each member of the research team then applied the draft codebook to a single transcript (not used in the previous round of codebook development). We discussed variances in our scores at length and used the test feature within Dedoose to identify areas that we needed to discuss further to develop a closer shared understanding of the categories and their application. A statistical technique called Cohen’s kappa measured the agreement between coders, which considers how much agreement would be expected by chance. The first application of the codebook had Cohen’s kappa scores of 0.62 and 0.71 when each coinvestigator’s codes were compared to the principal investigator’s; J. Richard Landis and Gary Koch assert that scores of 0.61 to 0.80 represent substantial agreement.⁴² After adjustments to the codebook, we repeated this process with a new transcript (kappa = 0.68 and 0.75). We divided the remaining 19 transcripts between the coinvestigators, with the principal investigator bringing consistency and additional rigor to the final coding designations by reviewing all the transcripts.

Our analysis began with a synthesis process that enabled us to move from codes to themes, according to Saldaña’s “codes-to-theory model for qualitative inquiry.”⁴³ The codes were divided evenly among the members of the research team, who synthesized coded excerpts using a template that included a summary of trends and themes, as well as relevant quotations. Our findings are based on these synthesis documents. For anonymity and clarity in subsequent sections, each faculty interviewee has been assigned a number. Direct quotations from interviews are attributed to participants according to these numbers.

The core findings that emerged from faculty interviews clustered into four areas: (1) reflecting on peer feedback, (2) assignment (and course) revisions, (3) flexibility and shifts in teaching (philosophy and practice), and (4) instructor reflections on student experiences.

Reflecting on Peer Feedback

I took the information from the charrette and not just feedback on my project, but thinking about other people's projects and a larger range of what we're able to accomplish.
(assistant professor, interviewee 18)

Faculty valued the feedback they received during the charrettes, even though it evoked feelings of vulnerability for many. Participants pointed to the difference between hearing feedback from students versus from other faculty, agreeing it was helpful to receive advice from seasoned instructors with more teaching experience in an interdisciplinary group. Some found this experience enlightening and motivating enough to encourage sharing with peers beyond the charrette.

Because of course scheduling, some participants had ample time between the workshop and assignment implementation to process—and ultimately use—the feedback they received from their colleagues. Some spring implementers, however, faced a time crunch preparing new assignments and materials, and some fall implementers struggled with the challenge of distance from the workshop when it came time for revision.

Charrette discussion left many participants with potential directions to be explored. As one faculty member explained, “I had to gear myself up to want to revise [my assignment] because I had thought of so many different ways it could go that you just say, ‘Now I actually have to put this on paper’” (lecturer, interviewee 20). For this participant and most others, however, revision and implementation ultimately “went more smoothly than I had envisioned.”

Participants' pre-charrette attitudes seemed to shape their motivation to revise and implement their assignments. The most successful faculty approached the overall experience by acknowledging that the work of teaching is never done and that constructive feedback is a means of propelling that effort forward. In the words of one experienced teacher, the charrette came at “a perfect time”: “It had been a little over a year since I'd run the [assignment] and I was ready to start thinking about it again. [I] also wanted to get some pretty insightful and critical feedback on how to make it better” (assistant professor, interviewee 18).

Faculty approaches to the post-charrette period also shaped the extent and success of their revisions. Beneficial strategies included spending time synthesizing feedback immediately after the workshop and intentionally allowing time for reflection on assignment design. Carving out time for revision and reflection enabled faculty to see other areas of the course (and even other courses) in which they could apply the assignment design principles discussed in the workshop. One participant commented on the “domino effect” revising the one assignment had on the rest of her course:

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Some of their feedback [at the charrette] even changed the way that I did some of the earlier assignments in the class just so that they would be more prepared to do that final assignment . . . Well, if I'm changing this here I probably need to change this assignment and change this, just to make everything match . . . It had a semester-wide impact.

(assistant professor, interviewee 10)

Of course, participants did not implement all feedback offered by their colleagues during the charrettes. The most common suggestions rejected had to do with assignment timing, requiring drafts throughout the semester, point distribution and rubric details, and group work versus individual work. Differences in teaching philosophies generally enriched discussion in the charrettes but revealed different expectations of student performance. Some faculty ignored feedback from peers that involved toning down overly ambitious assignments, though they gave more thought to preparing students to meet the assignment's challenges:

I did hear from people at the workshop "this is very ambitious," and they had concerns about the ability of students to accomplish the level of the scope that I wanted. I wouldn't say that I rejected that out of hand, but that was in the back of my mind as I made the decision to guide [the students] more and make it a little less independent.

(associate professor, interviewee 2)

Finally, the interdisciplinary nature of the charrette feedback (the most engaging aspect of the experience for many participants) frustrated a few participants when suggestions came from people unfamiliar with core disciplinary requirements and learning goals. But as one faculty member explained, even peer feedback that was not implemented was accompanied by suggestions that were helpful:

Several participants specifically mentioned integrating their observations about others' assignments into their own revisions.

When they were really trying to nail it down, and say, "Hey, you could include some sort of history element into it, or you could include an online element to it, or they could prove their research through

ABC," I was like, "Well, that isn't important for the assignment." And so I didn't follow that. But the things I changed were mostly because of them too, though.

(lecturer, interviewee 9)

The opportunity to comment on others' work was often fruitful in and of itself. Several participants specifically mentioned integrating their observations about others' assignments into their own revisions.

Assignment (and Course) Revisions

It's really important to share your work with others.
(assistant professor, interviewee 6, in response to the question "What is your biggest takeaway?")

Faculty made revisions ranging from small (but impactful) details in assignment descriptions to larger-scale, course-level adjustments. The specific examples discussed in interviews fell into three categories relating to faculty members' pedagogical goals: (1) making the implicit explicit, (2) facilitating student connections, and (3) fostering authentic learning, in which students learn through engagement in activities authentic to the practices of a field or discipline.

Making the Implicit Explicit

Interviewers particularly asked how the concepts of implicit tasks and scaffolding—introduced in the workshop using the framework from *Decoding the Disciplines*—had affected faculty's assignment implementation. Based on our follow-up interviews, the strategies most commonly used by our participants were scaffolding assignments, clarifying assignment expectations and instructions, and modeling—that is, demonstrating a skill to help students learn it.

Scaffolding

Faculty focused on assignment, course, and programmatic scaffolds in their revisions, such as breaking up assignments into smaller steps that would build on each other and creating opportunities for stepwise learning on several levels. One interviewee described realizing that his students did not come to his course with the necessary skill level and experience. This realization prompted discussions at the program level and ultimately led to the development of a new prerequisite course. On a smaller scale, one faculty member reflected, "I've started to do weird things, like I make them color-code their research so that they can actually see how it's integrating, and so that's taking a thing that should be implicit, and that they should just get, and showing them physically, like 'This is what this looks like'" (lecturer, interviewee 9).

Research skills commonly emerged as areas that required scaffolding. Examples included developing research questions and methods, reading a scholarly article, synthesis, evaluating sources, brainstorming, annotating, working with the Institutional Review Board (IRB), understanding primary and tertiary sources, exhibit ethics, and finding research help. While research was central to scaffolding for most of our participants, other concepts emerged as well, including discipline terminology; public speaking; poster creation; giving and receiving critical feedback; and math modeling, the use of mathematics to represent and analyze real-world phenomena.

Some faculty were familiar with the concept of scaffolding prior to the workshop. For others, considering scaffolds in the context of assignment design was relatively new. As one interviewee explained, "You sort of teach how you are taught, and it takes a long time to realize the benefit of other ways of thinking. Many more checkpoints is new for me" (associate professor, interviewee 21). For those who had already considered scaffolding, charrette discussion inspired a deeper evaluation of where and when intermediate steps would be helpful for students—and the degree to which students needed steps broken down:

What changed was more how I thought about structuring the semester leading up to [the final assignment]. I had a handful of scaffolding assignments in mind, but I sort of added more in and thought about other ways that other things we were doing could be used to scaffold that final project. That was the big change.

(assistant professor, interviewee 15)

Another participant agreed, commenting, “What I learned in the charrette was to front-load, you know, to have more concrete objectives for each piece. I didn’t have that before, so to really, sort of, contextualize and bolster each piece of the scaffolding” (lecturer, interviewee 8). Others built on the idea of context in their interviews, discussing how important it is to connect each piece for students and help them realize how each skill and activity contributes to the whole of their learning. Though scaffolding takes time, our participants found it a good investment.

Clarifying Expectations and Instructions

While building scaffolds was one major way of making the explicit implicit, interviewees also discussed clarifying assignment expectations and instructions. Faculty realized the necessity—and benefits—of being more transparent with assignment requirements, including framing why they were teaching something. Interviewees commented on the advantages of being clearer with expectations upfront (including in rubric language). As one participant explained:

[My] revisions happened in terms of fuller explanations, more complete demonstrations in class of things I wanted the students to do before they did them. And I think both of those were really helpful. I had fewer students saying, “What? I’m not sure what you want to happen here.” So the students seemed more confident as they went into the assignments.

(assistant professor, interviewee 13)

Even after revision, some faculty reported a need for more clarity in the next iteration of their assignment descriptions, indicating this as an area for continuous improvement where the perspectives of colleagues (including librarians) proved useful.

Modeling

Nearly half of our charrette participants shared ways they modeled skills and expectations explicitly in class as part of their assignment revisions. These techniques ranged from conducting a mock interview, to breaking down the components of a typical academic journal article, to demonstrating the use of library resources, to parsing statistical analyses, to giving and receiving feedback on a fellow student’s work. One faculty member explained that a big difference in her teaching this semester was intentionally calling attention to her modeling as modeling:

Previously, I had it set up so that I modeled throughout the semester what I would want them to be doing in their presentation, but I wasn’t explicit about that this was my expectation for them. And so this semester, I started with introducing the assignment at the beginning of the semester briefly and saying that I was going to be modeling for them how I want them to present.

(lecturer, interviewee 16)

Six faculty members talked about providing students with sample assignments as part of modeling. Some distributed examples of the final product upfront, while others shared specimens at careful intervals in the course sequence to avoid overwhelming their students. These examples sometimes represented a single level of student achievement (the “good ones”), while others represented a range to show students what different levels of performance looked like. Regardless, these examples proved helpful for both instructors and students, as one faculty member reflected:

I think it’s a good idea for the students to know what’s in my head and what I want rather than them trying to guess at that. You don’t want to spoon-feed them, but you also don’t want to have them blindly trying to figure out what you are after, so I went ahead and showed them a previous group’s final end-product at the very beginning of the . . . course.

The combination of scaffolding, increased clarity, and modeling tended to reduce the number of student questions about assignments. For one professor, students in the course “perform[ed] better, and they perform[ed] with fewer concerns, complaints, and consternation” (professor, interviewee 1).

The combination of scaffolding, increased clarity, and modeling tended to reduce the number of student questions about assignments.

Facilitating Student Connections

Numerous faculty recognized the value of students learning to work together, whether participating in class discussion, providing peer feedback, or creating a product. One participant elaborated: “In terms of communication and being able to work collaboratively, we have to figure out how, both as the giver and receiver, to communicate in a way that allows everyone to feel intellectually and emotionally safe with the conversation” (assistant professor, interviewee 18). Just as we tried to create a community of practice through our workshop, some faculty focused on facilitating learning communities within their classrooms. Assignment-related ways they did so included increased opportunities for student collaboration, student peer review, and intentional facilitation of group work.

Many faculty restructured their class to include more group work. For those who had already integrated group work into the course, the charrette experience prompted greater facilitation and scaffolding to improve students’ experiences. Overall, 13 faculty had a component of group work within their final assignment. Faculty commented on offering their students coping strategies for dealing with group work, where students experience a wide range of personalities and work styles. Many participants described tension between knowing when to intervene when they spotted group conflicts versus letting students negotiate these challenges on their own. One faculty member said, “I think the one thing I want to try and do better the next time is if I see a group flailing, to see if I can’t figure out how to get them back” (professor, in-

Successful facilitators of group work headed off conflicts early by offering checkpoints involving peer assessment of strengths, weaknesses, and other reflections.

interviewee 1). Successful facilitators of group work headed off conflicts early by offering checkpoints involving peer assessment of strengths, weaknesses, and other reflections. Faculty also commented on the general difficulty of group work: "I did not realize how hard it is for students to do group projects. I mean, every single group had a conflict" (lecturer, interviewee 8).

Indeed, facilitation of group work was another theme that surfaced in charrette conversations and in our interviews. Some faculty offered advice about forming successful groups through surveys, intentional pairing of students, or letting students self-organize. Several faculty members thought it best to let students self-select groups, which they found led to less conflict. One specifically commented on pairing top performers with lower-performing students: "I was really grateful that some of those poor performers had the opportunity for a type of scaffolded situation where they could apply and learn research concepts from someone in the class who was really getting it" (assistant professor, interviewee 10).

Perhaps motivated by the experience of receiving peer feedback during the charrettes, some participants built student peer review into their assignments. They noted strategies for teaching how to give (and receive) effective critical input and talked about the need to scaffold this skill. Participants mentioned the difficulty of helping students be honest and open when sharing feedback with one another.

Fostering Authentic Learning

The final category of revision-related themes that emerged from our interviews focused on fostering authentic learning, defined by Allan Collins as "learning knowledge and skills in contexts that reflect the way the knowledge will be useful in real life."⁴⁴ Faculty

Authentic learning pushes students harder and requires more of them, but students ultimately evolve a larger skill set by the end of the course.

worked to create student learning opportunities that reflect what actual practitioners in a field or discipline do, encompassing both research processes and products. Creating high-stake assignments more authentic to the discipline while minimizing what David Wiley calls "disposable" assignments came up repeatedly in both the charrettes and during the interviews.⁴⁵ As one faculty member commented, we "just sort of give them this busywork, this garbage to

do at the end of the semester to prove what you've learned this semester. It's not guaranteed that you're going to take anything away from this class as a result of it, right?" (lecturer, interviewee 11). Authentic learning pushes students harder and requires more of them, but students ultimately evolve a larger skill set by the end of the course.

Our participants designed unique final assignments that gave students a venue to demonstrate their skills as novice practitioners in their discipline. Examples included having students take on the role of scientists in a published study and presenting the results to the class, running their own research study in an anthropometry class, and conducting interview-based qualitative research on peers' clothing preferences. These projects required teaching students real-world skills transferable to other classes and

to the workplace.

In the spirit of Wiley's "renewable assessments,"⁴⁶ many faculty designed assignments with a "share to the world" component, as one interviewee referred to her assignment (assistant professor, interviewee 12). Perhaps the highest visibility examples of this were the three faculty members who used student-curated digital exhibits as an alternative to the traditional research paper. Many faculty, however, talked about the benefits of public-facing assignments that take student work outside the classroom. One described having her students present their research at the university's Undergraduate Research Symposium, which "legitimized" the learning experience for them. "It's interesting because I think the poster session, especially being public and in the library . . . helped them feel legit, like the work that they did was legitimate and the work that they did was valid" (assistant professor, interviewee 18). Another faculty member found that a public-facing product was a more effective way for students to show comprehension about course learning objectives. "Hearing them talk about the terms and the concepts," he observed, "made it really clear to me that they were actually understanding what was being taught in the course versus 'thanks for this paper'" (assistant professor, interviewee 10).

Flexibility and Shifts in Teaching

What we do in the classroom really matters. And, you know, on the next level down, that high stakes learning is really crucial, and we should do more of it.
(associate professor, interviewee 13)

Faculty demonstrated a remarkable willingness to reflect on and be critical of their pedagogy, as well as a willingness to adjust plans and respond to student feedback midcourse. This adaptability in both teaching philosophy and practice resonated beyond the context of assignments discussed in charrettes and into the bigger picture; faculty alluded to these shifts as they spoke of their plans for future approaches to teaching or even for other courses. New faculty revealed changes in their perceptions of the importance of assignment design and the need for careful reflection about what students require to be successful. Seasoned faculty felt the same way: "After the charrette, I started thinking in those terms about actually all of my classes, so it wasn't just for this one, but what kinds of scaffolding does my intro-level class need—what do those students need? That's become kind of a central part of my own pedagogical processes" (assistant professor, interviewee 18).

Creating authentic learning experiences for students often required professors to be flexible, adapting their lectures and other learning materials to match student interests and putting in extra time to restructure assignments. Some faculty even discarded traditional grading schemes in favor of giving students an authentic experience producing their own research. Multiple instructors demonstrated flexibility by soliciting and responding to students' feedback throughout the course and assignment. This resulted in shifting timelines, restructuring course components, and more opportunities for peer and instructor feedback. Two examples, in particular, highlight faculty openness. One

faculty member described how he responded to a student's idea about her final essay: "We were perhaps about five or six weeks of the way in and then she suggested, 'I'm thinking that I'd like to organize my essay. It would still meet the criteria required for the assignment if I were to do it this way.' I said, 'Well, let's experiment with that and see what you think'" (associate professor, interviewee 4). Another participant cut the final assignment for her course because she felt that her students had already demonstrated the class objectives, opting instead for a reflective class discussion to synthesize student learning.

Many changes in teaching tied directly to what faculty learned about their students during the experience of implementing their revised assignments. In their interviews, most faculty mentioned discovering what skills students had or lacked, ranging from the technological to the interpersonal. One instructor, for example, expressed frustration with the absence of what she had assumed were foundational skills among students in her upper-level course. In response, she adjusted her teaching to include more modeling and scaffolding, and recalibrated her expectations: "I think one of the things that I took away from the charrette was just maybe my expectations were a little bit too high . . . I figured people knew how to find a journal article . . . I realized that it wasn't just my students that were struggling with this, but students in general do" (assistant professor, interviewee 12). Concerns around asking students to do too much emerged for other charrette participants. But most faculty found students capable of completing complicated tasks and assignments when given tools and preparation. Several participants were impressed by the results when they raised the bar for their students. "I was really surprised," one assistant professor said, and then explained, "The biggest takeaway was changing what I can have as an expectation of my students and what they can produce. [I can] still push them and not be unrealistic or look at it and say, 'They're just undergraduates. They wouldn't be able to handle that'" (assistant professor, interviewee 10).

For some faculty, scaffolding learning (particularly for new tools like Omeka, the open-source digital exhibit software) and creating opportunities for sharing (for example, in-class peer review and presentations) necessitated sacrificing subject content. One professor discussed the significant content areas she excluded from her lectures to make time for teaching students to build digital exhibits. She commented, "You kind of have to let go of this idea of what students have to leave your class knowing" (associate professor, interviewee 13). Some students resisted the loss of content: "It's almost like an intellectually bipolar feeling because on the one hand, when we started the digital exhibits, students complained that they're not getting enough content" (assistant professor, interviewee 18).

Input from charrette peers was helpful for faculty trying to strike a balance between process and content. One experienced instructor talked about her shift from focusing on content as a new teacher to developing a deeper understanding of the importance of instruction on finding, reading, and using research. She described a conversation with a colleague who resisted the necessary time for research scaffolds:

And [my colleague] says, "Oh, I can't sacrifice content to do that," for his class. So all he does, every year, is complain about the poor quality of the papers he gets. How students don't know how to find papers. How they don't know how to read scientific papers. But he doesn't do anything to set up the students for success.

(associate professor, interviewee 7)

More experienced faculty mentioned adjustments earlier in their careers that were reinforced by their experiences, such as recognizing the need to build in time for scaffolding and setting realistic expectations for students' capabilities. This realization tied directly to a desire to spend more time on building creative, strong assignments, as well as seeking out feedback from colleagues.

Library Collaborations

For some faculty, a more flexible approach to teaching meant reassessing the need for—and extent of—library involvement. Changes stemmed from more intentional thinking about what scaffolds and resources were required for their courses, and how librarians and library materials could support them. Along with librarians' facilitation and presence at the charrettes, librarians were integrated into assignments and courses in various ways. Several faculty included an extra class session on learning how to research after realizing their students lacked those prerequisites:

It really made me think, "Do they actually know how to find resources that are valid, that are based on evidence," and from what I suspected, they didn't really have that foundation because they hadn't experienced it with feedback. And so, having [a librarian] come and have them practice and get feedback while they [were] practicing finding resources was really valuable.

(lecturer, interviewee 16)

Responses to our interview question about research resources reflected a lack of consensus among faculty about what *research resources* meant. For example, two faculty talked about adding specific lecture content to help students understand the research or research methods. Some faculty gathered resources independently of librarians but still used library collections. Several faculty added a library instruction session with a librarian, one removed it from the course, and many dedicated class time to demonstrating library resources themselves. LibGuides and face-to-face instruction seemed to be the main ways librarians were involved in new research resources. Other ways included suggesting resources for the course and creating online content (for example, Canvas modules or videos). One faculty member talked about how she extended her assignment revision into the course materials she selected, and how even this selection process became an opportunity for modeling credible sources of information:

One thing that I did differently this year...is [I replaced] a \$90 book [with] other resources that were available either through the library or online. So, I included more of those across the semester which would be the same kind of sources they'd be looking for instead of the textbook . . . I decided that if I can model that part too, about what resources are appropriate and how to read the resources. I told them specifically, "Read these tabs and this information," and I was hoping to help them [know] what to look for.

(lecturer, interviewee 16)

Library involvement depended on the faculty member and assignment context. For example, one participant said, "I try not to make it too library-heavy" (associate professor, interviewee 21).

Teaching as an Iterative Process

In reflecting on their practice, many faculty mentioned the importance of continuous improvement and their view of teaching as an iterative process. As one interviewee stated, “Good assignments can be better” (professor, interviewee 1). Tinkering, creativity, and an eye toward future iterations of assignments were common themes that emerged in these reflections.

A few faculty members expressed satisfaction with their revised assignments and the resulting student work, and saw no need for further revision (other than perhaps fuller integration into the rest of the course). Most participants, however, spoke about specific changes they would make in future versions of their assignments. The most common changes were adding more explicit criteria to assignment descriptions and clarifying assessment parameters. Several interviewees also mentioned plans to “sell” the assignment more to their students in future semesters. For instance, three faculty members specifically mentioned promoting the benefits of an annotated bibliography as a step in writing a research paper (rather than as an end in itself). Other future changes included adding additional mini assignments to better explain common learning bottlenecks and emphasizing particular methodologies and concepts, or as one faculty member referred to it, establishing an “anchor to go back to” throughout the course (lecturer, interviewee 16).

Reflections on Student Experiences

Something that I wasn’t anticipating was how much fun they had doing this. There was a lot of joking and laughing. They took it seriously, they did a good job, but they clearly really enjoyed doing it.

(assistant professor, interviewee 3)

Though we did not interview students, we found it enlightening to ask faculty about their perceptions of students’ experiences with assignment and course revisions. The act of reflecting on the impact on student learning and engagement tied into faculty members’ discussions of future changes to their assignments and pedagogical approaches. The majority of our participants saw positive changes as a result of their first round of revisions, including higher student engagement in both the assignment and the course, fewer clarifying questions about the assignment itself, adjusted expectations toward the course, and excitement about the final product. Others reported student tensions with group work and general anxiety about the more immersive class experience, with more effort being required of students.

Many faculty described their students’ sense of accomplishment at the end of the semester, especially once they carried their final product to completion. Students appreciated the opportunity to learn how to use digital exhibit and biology software, for example, enjoying the departure from the typical research paper. One faculty member commented on this aspect of her students’ engagement:

I feel like people get so invested when it's their own research. These students worked so hard, that's why I was like, "All right, no more presentations. We're going to have breakfast." Because, they were e-mailing me at all hours, and they had fun, they worked on weekends, and I got so many e-mails saying, "I love this project, this so fun."

(lecturer, interviewee 8)

Student reflections on group dynamics and group work also surfaced within the interviews. Faculty reported students coming to them with concerns about less engaged group members, strong personalities, and students taking over a group. Student anxiety with public speaking also came up in several interviews, with issues ranging from students being less likely to participate in large enrollment classes, anxiety about reading from scripts for poster presentations, and general shyness about participating in an immersive structure class.

Several faculty reported less student confusion and fewer questions about assignment logistics and expectations, possibly due to improved clarity of assignment descriptions. Students seemed less panicked about the assignment compared to previous semesters, which could be attributed to more built-in opportunities to practice (scaffolding). Some faculty said their students responded better to their more structured assignments, but one participant reported her students felt too reined in by that structure. One faculty member spoke about the advantages of clearer assignment descriptions: "I think the perception of the assignment is better, so I think the students enjoyed the assignment a little more. Something about not being left in open water makes people a little more comfortable, I think" (assistant professor, interviewee 17). Some faculty noticed an overall improved level of preparedness with students, whereas others commented on students grappling with time management issues and procrastination. Two faculty spoke of students who dropped their good sources in favor of less authoritative ones because the lesser sources were "easier to deal with" (lecturer, interviewee 11).

Student expectations of courses also emerged several times throughout the interviews. Upon encountering low levels of engagement and attendance in her class, one faculty member had a frank conversation with students and heard comments such as "we thought this was going to be an easy class" from several. Two history faculty described their students' initial resistance upon realizing the class was an immersive experience creating digital learning exhibits with primary resources rather than a traditional lecture course. Communication and clarity eased these tensions, however, and students ultimately enjoyed the experience.

Overall, half of the interviewees reported higher quality final products compared to previous semesters, reflecting student growth. Three participants said the grades were about the same. Faculty tended to be impressed with their students' understanding of concepts from the course and their use of what they had learned: "I was really impressed with their ability to apply at that point in the semester. Some of their final projects, I looked at them and I said, 'This is high quality work, this is stuff that I would see at conferences and things like that'" (assistant professor, interviewee 10).

Discussion

Librarians Joining Learning Communities

As librarians, we recognized a place to effectively position ourselves and skills; essentially, we created a structure for a learning community and joined it as one voice at the charrette table, reframing our work and faculty perceptions of it. For faculty, the

The iterative work of teaching thrives when a constellation of voices is represented—including those of librarians, other faculty, instructional designers, and, of course, students.

learning community created in the charrette experience was the major takeaway. Thus, our participants' experiences suggest that assignment feedback should come not from a single source (that is, librarians). The iterative work of teaching thrives when a constellation of voices is represented—including those of librarians, other faculty, instructional designers, and, of course, students. As one participant reflected:

I think there is an assumption of competence that, you got this, you can do this, you know? But I don't think receiving feedback makes you incompetent, I think it's really helpful. We give our students feedback all of the time; why can't we have feedback? From someone who's not a student, right? . . . I mean, student feedback is okay but there's a difference between receiving feedback from a student or receiving, it's like the scaffolding experience, from a more advanced peer, someone who has the ability to see what you're trying to do as a professor and to give you really useful ideas.

(assistant professor, interviewee 10)

Some faculty were introduced to entirely new teaching concepts as a result of their peers' feedback. Others reconsidered old concepts through a new lens. Faculty also reflected on how much they had in common with one another, especially in terms of shared learning objectives across disciplines and programs. Librarians helped to emphasize these ideas for faculty by converging and facilitating learning communities and by prompting faculty to think carefully about where students commonly get stuck in their assignments and in the research process.

From an IL perspective, the goal of the charrettes was not to create deep library collaboration in every assignment, but rather to facilitate sustainable connections when appropriate or necessitated by the learning outcomes of the assignments and courses. Librarians can help faculty improve one another's assignments, work which might not happen without the librarians' facilitation. The range of assignments, assignment contexts, and teaching approaches of faculty represented across the workshops meant that some collaborations did emerge, whether in the form of library instruction sessions, LibGuides and online learning materials, or collection curation or development.

Implications for Library Instruction and IL

The interviews indicate that many faculty changed the way they thought about how to teach research skills, including how much time is needed, which skills are implicit that

need to be made explicit, and how often instructors assume students enter a class with specific skills that they have not yet mastered, or to which they perhaps have not been introduced. Numerous faculty extended this realization by emphasizing how much content they sacrificed to accommodate the need to scaffold a variety of skills, research, and other disciplinary concepts.

This shift in thinking has direct implications for librarians and library instruction. It deemphasizes the importance or self-imposed goal of librarians attempting to be in all classes all the time and focuses instead on targeted use of opportunities. In some instances, library instructors must let go of a certain vision of what IL instruction should be, which may include an impulse to “own” the teaching and learning of IL. A librarian attached to a course with an instructor who has undergone this shift may less likely receive a list of research-related learning outcomes from which to teach in a 50-minute class period. Ideally, that long list of outcomes is embedded and structured more explicitly throughout the course and assignment, where librarians often have less influence. This is not to say that there is no place for librarians in the classroom. As we further target those opportunities that are our most effective, highest-priority, and most in-depth collaborations, we can be more aware of how, if, and where the wide breadth of skills associated with IL are being taught—by anyone.

It is key that librarians communicate their understanding of these disciplinary practices to faculty in authentic ways—for example, through discussion of research assignments in a charrette. Opportunities like a charrette allow librarians to develop a common understanding with discipline faculty, all in service of student learning. As one librarian participant in our workshop stated, “Faculty don’t understand that they have implicit expectations from students [that] need to [be] uncovered for them more regularly.”

Opportunities like a charrette allow librarians to develop a common understanding with discipline faculty, all in service of student learning.

Institutional Support for Collaborative Assignment Design

Structure, consistency, and space are all things the library—and librarians—can offer to help faculty integrate this work into their regular practice. “I just don’t know that there’s a lot of ongoing encouragement for this approach to cross-discipline assignment design. One faculty member shared in a justification of why the interdisciplinary space of the library was the logical home for this type of experience. Another faculty member discussed how he felt unprepared for teaching in general and appreciated the feedback and mentorship of his peers. Some of the concepts shared by the librarians in the presentation and by his group members at the charrette table were new to him. They provided a learning experience he felt was lacking in his previous training:

The way it worked for me (and it’s actually the way I’ve heard others relate their teaching narratives) basically is that you are in graduate school and somebody turns to you and is like, “We need you to teach a class and here’s the topic.” Right? And maybe if you’re lucky they’ll say, “Well, here’s the old syllabus that I used.”

(lecturer, interviewee 11)

Sharing work, learning from more seasoned teaching faculty, and being flexible and reflective are keys to overcoming the individualism that sometimes characterizes academia and

Sharing work, learning from more seasoned teaching faculty, and being flexible and reflective are keys to overcoming the individualism that sometimes characterizes academia and may not best serve student learning.

may not best serve student learning. This work, however, takes effort and the willingness to take risks. The library is a key place where taking a “leap of faith” is supported:

It’s not always easy for me to find somebody that can give me productive insight into what I’m doing. So the biggest challenge and success [of the experience of participating in the charrette] was

I kind of went on faith. I think the biggest challenge was wondering is this going to be worth my while, and the biggest success was finding that the way that it was set up, and the way that it was processed did give me some valuable insight into this particular assignment.

(professor, interviewee 1)

Collaboration is inherent in most libraries, whereas some faculty work in relative isolation or have fewer opportunities to work collaboratively, especially cross-departmentally. Faculty responses to whether they felt their departments supported collaborative assignment design depended on department culture. One participant claimed, “I don’t feel unsupported” (associate professor, interviewee 21), but that person belonged to a small department with a culture that already encourages semiformal discussion of assignments and teaching practices. Another described the department culture in other terms: “I mean I have some colleagues that I could talk to if I really wanted to, but, I don’t . . . that type of atmosphere isn’t really fostered in my department, it isn’t a huge focus or push” (assistant professor, interviewee 10).

Centers for teaching excellence or instructional designers might teach some aspects of assignment design. However, they often have many other roles to play on campus, particularly with demands on learning management systems and accessibility issues.

Conclusion

Limitations of our study included that we only conducted one follow-up interview with each faculty member, as well as that we could not track the impact on student work with authentic assessment. We also did not reconvene the workshop cohort to have group reflection on changes implemented in courses, or track the more organic relationships and conversations that emerged between cohort members after the workshop. Though we believe the richness of our interview data represents an important start in understanding how teaching faculty approaches their work, future studies could explore these other aspects. Positioning librarians as facilitators of learning communities fills a gap in research assignment design support on campus and creates a forum for interdisciplinary collaboration on teaching.

Time, competing responsibilities, and sustainability are challenges when trying to organize any sort of faculty professional development. These challenges necessitate the careful design of opportunities to foster knowledge sharing and growth among teaching faculty. Rather than being top-down, ours was a lateral intervention—a program designed by library faculty for teaching faculty. Wenger explains the inherent value of the peer interaction we facilitated:

A common mistake in organisations is to assume that horizontal relationships lack accountability—and therefore the only way to create accountability is to overlay vertical structures. Participation in a community of practice can give rise to very strong horizontal accountability among members through a mutual commitment to a learning partnership. Even a good conversation creates accountability, albeit of a temporal and tacit nature.⁴⁷

We leveraged the principles of the charrette format of the National Institute for Learning Outcomes Assessment and of action learning to provide a new frame for this conversation on our campus. The arc of our project also enabled us to model processes we encouraged our faculty participants to explore, including scaffolding, authentic learning that emphasized implicit processes (the workshop experience itself), and an opportunity for reflection (the interview). The richness of these reflections—as evidenced by the interview content quoted in this paper—speaks to the lasting impact of convening interdisciplinary communities of practice about teaching. Librarians and libraries are an integral part of the “intricate structure of [the university] community’s learning resources.”⁴⁸ Shifting faculty perceptions to view librarians as interlocutors and collaborators is a key step in developing sustainable information literacy interventions and partnerships. “Librarians,” Fister reminds us, “have more social capital than we might think . . . Why not also make [the library] a salon for faculty conversation, for discussions about learning, for articulating what it is that we do and why it matters?”⁴⁹

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Appendix A

Faculty Interview Questions

We have some questions relating to what you changed in your assignments, how it worked, and reflections on your experience and your students’ experiences.

The interview should take approximately an hour, and we will be recording it. We do have quite a few questions, so we’ll get started. Do you have any questions before we begin?

The first few questions focus on your revision experience.

1. Tell us the story . . . What happened between the workshop and implementation?
2. What were the major revisions you made to your assignment after the workshop?
3. What revisions didn't you make and why?
4. What revisions (if any) would you consider if you implemented this again in the same course in the future?
5. Did you collaborate with your subject librarian in redesigning and implementing this assignment? Why or why not? What worked, what didn't?
6. Did you integrate any new research resources into your course to accompany the revised assignment? How did you find, select, obtain them?

The next few questions ask about student work and experiences.

7. How many students completed the revised assignment?
8. How did grades this semester compare to past performance?
9. How did the final product relate to your expectations?
10. From your vantage point, how did the student experience of the assignment and of the course differ (if at all) from the previous version of the assignment? [The following may be offered as prompts, if needed: level of apparent engagement, amount of confusion/ clarity about the assignment, degree of preparedness/ procrastination, etc.]

The next few questions focus on big-picture thoughts and reflections on your experience from the workshop to today.

11. Did you learn anything new about your students this semester (as a result of this project)?
12. Do you have any new plans or strategies for your teaching going forward as a result of this project?
13. What were the biggest challenges and the biggest successes in this experience?
14. What is your biggest takeaway from this experience?
15. In the workshop, we talked about implicit tasks and scaffolding. Tell us about how those concepts affected your implementation or not.
16. Do you plan to implement this revised assignment again?
17. Do you have any support for this type of work in your department (feedback, assignment design support)?
18. Anything else you'd like to share?
19. If applicable:

If you have student work samples with you, what worked, what didn't, where do you see bottlenecks that were overcome or that still remain?

Thank you so much for your time. We recognize that we served as researchers and interviewers, and we understand if there are things you might hesitate to say here. For this reason, we will send you one last anonymous survey link that is an empty text box for any thoughts you want to share that weren't mentioned here. You can also e-mail us anytime if you want to add anything, too.

Appendix B

Codebook

	Parent (higher-level) code	Child (lower-level) code	Definition
<i>Workshop related</i>	The workshop itself		General comments about the assignment design workshop (e.g., logistics, content, etc.) or about participant engagement (buy-in, interest, motivation, networking, fun, or lack thereof).
			Not about feedback received during the actual charrette.
	Peer-to-peer feedback (at charrette)		Use for comments about charrette peer feedback that the child codes don't apply to.
		Processing feedback	Debriefing after workshop and before implementation (includes comments about hard work of revision, timing, reflection before implementation, etc.)
		Value / usefulness	Comments on the value and usefulness (or not) of the peer comments received during the charrette or in written feedback.
		Interdisciplinary	Any mention of interdisciplinary charrette groupings, positive or negative.
		Teaching experience	Discussion of varied levels of teaching experience, expertise, and knowledge, positive or negative. Also includes mentoring and comments on faculty rank

Appendix B, continued

Parent (higher-level) code	Child (lower-level) code	Definition
Assignment design collaboration (in general)	Feedback not taken	Examples of peer feedback that instructors didn't choose to implement and explanation of reasons why (e.g., resistance, non-applicability, misunderstanding)
		Broader discussion of the value (or not) of collaboration on assignment design. Comments are about this in general, not about the specific workshop. Could include comments like "you should do more of these because . . ."; discussion of barriers to this type of work ("scary work," no formal support, informal is burden on other faculty); or incentives for this type of work (\$\$\$, food). Also includes any opportunities (or lack thereof) for this work outside the workshop we offered.
Assignment related	Revisions	Use for comments about assignment revisions that the child codes don't apply to.
	Scaffolding	Includes research scaffolds, group work scaffolds, the need for scaffolds, and reorganization or restructuring of assignment. Also includes mentions of practice and in-class work (part of the scaffolding process).

Sacrificing content	Discussion of having to omit or decrease coverage of particular topics in service of scaffolding, practice time, or deeper explanation of “implicit tasks.”
Clarity	Comments about clarifying assignment descriptions, defining disciplinary language, need for increased clarity, etc.
Student peer review and revision	Encompasses changes made to assignments to allow for new, increased, or decreased chances for student peer review and /or revision (for credit or not).
Group work	Encompasses changes made to assignments to allow for new, increased, or decreased chances for group work. Also includes comments about facilitating that work and /or teaching students how to work in group.
Authentic learning experience	Student research processes and products that reflect what actual practitioners in a field/ discipline do and produce.
Public-facing product	Use this code if student work is presented to peers or shared outside the classroom in any format.

Appendix B, continued

Parent (higher-level) code	Child (lower-level) code	Definition
Instructor related	Assessment	Future changes to this assignment
		Captures any comments about changes to this specific research assignment the instructor plans or would like to make. Different from “shifts in teaching practice” in that this code is about the particular assignment.
	Learning about learners	Comments about how instructors measured student performance formally (mention of rubrics or grading). This may also co-occur with codes about assignment revisions.
		This code applies to things instructors learned about their students and any assumptions or preconceptions about student skills (including research and information literacy skills), behavior, or knowledge.
Modeling		Instructor demonstrating skills and processes they asked student to do. “I showed . . .” “I modeled . . .” “I gave them sample work . . .”
		This may co-occur with scaffolding, but we’ll wait ‘til analysis to figure out the relationship.
Instructor flexibility and shifts in teaching		Instructor willingness to change or adapt, in the context of the revised assignment or in the bigger picture (including plans for future approaches to teaching, even in other courses).

<i>Student related</i>	Student experience	Captures comments about the student experience in the course, their understanding of concepts, and their performance throughout (including on the final research product). Includes student realizations, expectations, engagement, points of confusion ("bottlenecks"), and grade comparison to previous semesters.
<i>Library related</i>	Research resources	Any mention of research resources or tools used in the assignment and course. These could be provided by a librarian or not.
	Librarian collaboration	Any mention of a librarian, library instruction, or a library session.
<i>Extra</i>	Other	Use for any "rich" / interesting content not captured by another code.

Notes

1. Barbara Fister, "Decode Academy," LOEX (Library Orientation Exchange), Nashville, TN, May 3, 2013, 12–13, <https://homepages.gac.edu/~fister/loex13.pdf>.
2. Ibid., 13.
3. At Utah State University, librarians are faculty members. However, for simplicity of language, this paper uses "librarian" to refer to the faculty librarians (all of whom have specific subject assignments) who participated in the assignment design workshops, and "faculty" to refer to the non-librarian faculty and lecturer participants who were the target audience.
4. Barbara Junisbai, M. Sara Lowe, and Natalie Tagge, "A Pragmatic and Flexible Approach to Information Literacy: Findings from a Three-Year Study of Faculty-Librarian Collaboration," *Journal of Academic Librarianship* 42, 5 (2016): 609, <https://doi.org/https://dx.doi.org/10.1016/j.acalib.2016.07.001>.
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7. Jeanne Lave and Etienne Wenger, *Situated Learning: Legitimate Peripheral Participation* (New York: Cambridge University Press, 1991).
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