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A Case Study of Job-Embedded Learning

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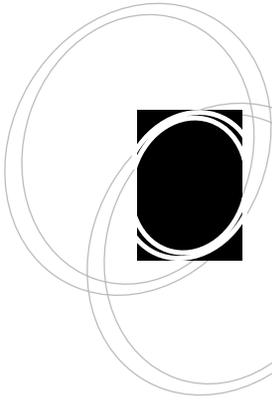
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abstract: Librarians recognize the importance of professional learning as their roles and responsibilities evolve in the shifting teaching and learning environments of the twenty-first century. However, the literature on meaningful, job-embedded learning opportunities for academic librarians is scant, and opportunities are especially scarce in the fields of instructional design and instructional technology. Using a qualitative case study approach, the author of this article presents how one group of academic librarians added to their knowledge of instructional design, instructional technology, and the Framework for Information Literacy for Higher Education.

Introduction

Continuing education is essential for many professions, but it is especially important for practitioners in academia. As standards, best practices, techniques, and instructional mediums change, educators must equip themselves to incorporate these new ideas into their teaching and apply them to student learning. For academic librarians, continuing education programs often occur at conferences or external seminars, such as the immersion programs offered by the Association for College and Research Libraries (ACRL). Nevertheless, meaningful—and perhaps more meaningful—learning can also occur within groups of librarians at academic libraries. While external training options may focus on big-picture ideas, this kind of job-embedded professional development can concentrate on integrating those big ideas into daily practice.

In this article, the author presents a case study of one instance of such job-embedded professional learning, which grew from her experiences in the 2013 ACRL Teaching with Technology immersion program. From this external professional learning experience, she developed and deployed a learning community for library faculty at her institution that exposed her colleagues to theories of instructional design, or “the science and art of creating detailed specifications for the development, evaluation, and maintenance of situations which facilitate learning and performance,”¹ and to instructional technology,

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the “theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.”² The author explains how the various iterations of the learning community functioned and shares data collected on how these experiences impacted her colleagues’ attitudes, practices, and self-efficacy—that is, their belief in their ability to successfully use what they had learned—regarding instructional design and instructional technology.³ The structure presented herein may be useful to other academic libraries and librarians working to integrate instructional technology and instructional design principles into teaching programs and practices.

Literature Review

To fully understand professional learning—whether job-embedded or external—it is useful to consider research on these kinds of learning opportunities more broadly. For instance, Malcolm Knowles’s concept of andragogy—the theory and practice of teaching

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adult learners—offers general guidance in designing training or learning opportunities for adults.⁴ Knowles proposes that adult-education experiences need to meet a number of criteria to be most effective: they must employ learners’ internal, or intrinsic, motivations, which are different for each person; they must allow for self-direction and integration of prior knowledge; and they must be specifically related to current needs or issues.⁵ Using these principles to design training or learning opportunities specifically aimed at adults helps these learners to make their own meaning or

construct their own knowledge by testing ideas based on prior knowledge and experiences and applying these ideas to new situations. This kind of structure also enables them to retain the new knowledge long-term.

While Knowles’s theory considers how to best train adults, an important consideration in designing learning specifically for librarians is how *their* learning can be translated into *student* learning. Teacher development and educational studies provide guidance on how to design training that impacts instructional practices to influence student success. Generally, professional learning has the greatest impact on both educators and students when it connects directly to learning scenarios, facilitates collaboration among educators, is grounded in research, and provides opportunities to apply tools and concepts.⁶ When specifically considering technology-centered professional development, the most effective learning offerings connect technological know-how with pedagogical and content knowledge.⁷

Although there is limited research on job-embedded professional learning for academic librarians, the scholarship that does exist confirms that librarians perceive a gap between their needs and their knowledge in meaningfully using technology in teaching.⁸



In fact, in a study of academic librarians' acquisition of technology skills, Debra Riley-Huff and Julia Rholes found that 62 percent of respondents did not feel themselves adequately equipped for the technology expectations and needs of their work.⁹ Ellen Shupe and Stephanie Pung investigated how to best address this need and found that, for the development of technology skills, job-specific training programs can help increase motivation while developing skills and dispositions for ongoing technology use in daily work.¹⁰ In their implementation of a technology training program with library staff, Kayla Quinney, Sara Smith, and Quinn Galbraith found that instructional sessions led by a knowledgeable internal instructor were effective in building technology knowledge.¹¹

While academic librarians have expertise in library science and information literacy instruction, they may need to acquire pedagogical knowledge hand-in-hand while gaining technology competencies. Pedagogical knowledge is based on understanding instructional design principles. While instructional design is not a library-specific term, it does involve the diverse activities librarians engage in that address learners' needs. Academic librarians not only serve as teachers but also act, as John Shank, Steven Bell, and Diane Zabel assert, as "facilitators [and] navigators" for students, subject-area faculty, and staff.¹² Furthermore, the advent of digital technology has changed the traditional role of the library as a repository of knowledge and altered the expectations of the librarian as an independent instructor.¹³ Library instruction may now take the form of face-to-face, one-shot sessions, online synchronous learning experiences, or e-learning materials, among others. Librarians develop partnerships with instructors and instructional technologists to design course-embedded learning experiences. They move beyond teaching the mechanics of using the library and challenge students to grapple with the nature of information, authority, and the search process.¹⁴

Instruction for librarians, then, may entail any situation where learning or performance needs to be facilitated, and so knowledge of instructional design has grown increasingly important. John Shank analyzed instructional design librarian positions in academic libraries and outlines many of the qualifications desired in today's academic libraries.¹⁵ For instance, many academic librarians, regardless of instructional design title or experience, are expected to create online learning resources, implement

information literacy instruction, and possess instructional technology skills. In designing learning scenarios, librarians may employ instructional design models to set goals, to

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structure learning interactions, and to assess performance. For example, Angiah Davis considers the ADDIE model—a popular instructional design approach consisting of “analysis, design, development, implementation, and evaluation”—through the lens of librarians’ practices so as to strategically build learning experiences with assessments and activities in mind.¹⁶

Char Booth’s USER model—which modifies the ADDIE approach by making it “understand, structure, engage, and reflect”—is a design scaffold specifically constructed with librarians in mind.¹⁷ This model approaches teaching—especially technology-integrated teaching—from a librarian-centric perspective, with special considerations for the unique aspects of library and information literacy instruction. Booth considers this model “a mental or procedural way to approach the four stages of effective instructional planning” while reminding librarians to “teach simply, reflectively, and with the learner at the center of [their] practice.”¹⁸ Within this model, there are four broad stages and, within each stage, two substages:

1. Understand by investigating the problem and analyzing the learning scenario.
2. Structure by creating targets and identifying how learners can be involved and engaged.
3. Engage by developing learning materials and delivering instruction.
4. Reflect by assessing the impact of instruction and revising and reusing instructional materials.¹⁹

These stages break down the learning design process for librarians into discrete components and help practitioners to engage in systematic, intentional instructional practices.

Professional Learning at Oakland University Libraries

It is helpful to consider the research on professional learning in academic libraries and instructional design through the lens of a specific situation. Oakland University (OU), in Rochester, Michigan, is a Carnegie-class doctoral research institution with an enrollment of over 20,000 students. OU’s University Libraries have a considerable instructional outreach within the university. Twelve full-time, tenure-track faculty librarians work as liaison librarians to departments across the university’s college, schools, and programs, and three additional librarians serve as medical librarians to the university’s William Beaumont School of Medicine. With the help of several part-time library lecturers, the libraries also partner with the university’s Department of Writing and Rhetoric to provide information literacy instruction to every section of WRT160, the required introductory undergraduate writing course. The faculty librarians also teach an online, four-credit general education course in information literacy and research known as LIB250. This course is offered in both the fall and winter terms and routinely has full enrollment.

Although OU Libraries maintain a strong—and growing—instructional program, their librarians have diverse philosophies on teaching and learning. The librarians also have varied experience in instructional design and in using technology in their teaching. The author, OU Libraries’ e-learning and instructional technology librarian, is charged with leading her colleagues to develop their skills, knowledge, and dispositions in instructional design and instructional technology with their different viewpoints and



experiences in mind. This work aims to help the library faculty both integrate library instruction into e-learning environments and incorporate instructional technology tools into face-to-face or blended teaching, which combines traditional in-person instruction with online learning.

Based on a needs assessment in the fall of 2012, all librarians expressed interest in using technology in their teaching. Moreover, they spoke of a desire to venture more deeply into e-learning environments but said they had little time to do this independently. To build this knowledge, OU's librarians sought to develop and understand best practices from within their ranks, where knowledge could be framed in a manner relevant to their regular work. They also expressed the need to see the meaning behind using instructional design and instructional technology practices in their work and in their outreach to their liaison areas. In addition, the librarians spoke of wanting hands-on practice with new tools, strategies, and principles in a low-risk learning environment before using those methods in live classrooms. Building their technology capacity, then, needed to be grounded in necessity, concentrated around specific learning situations, and focused on impacting student learning.

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In the summer of 2013, the author participated in the ACRL Immersion Teaching with Technology program to continue development of her own knowledge and skills in instructional technology. She also used this experience to identify how to provide meaningful professional learning opportunities for her colleagues. Through small, instructor-led learner cohorts, the ACRL immersion program sought to build participants' knowledge of systems theory in instructional design; to ground this professional learning in specific and individualized real-world needs; and to help participants gain hands-on experience with an array of instructional technology tools. Using these three objectives as a jumping-off point, the author adapted both the immersion program's theoretical foundation and its practical structure to address the needs of OU's faculty librarians in instructional design and instructional technology.

Designing Professional Development

The immersion experience was a four-week intensive experience, but the author translated it into a longer-term, ongoing professional development offering at OU Libraries. The content needed to be restructured to establish a group of learners with shared goals while sustaining learning over time. To achieve these ends, the author employed a learning community model.²⁰ Paul Baker defines *learning communities* as relatively small groups of individuals with a clear sense of membership, a common set of goals, and opportunities for interaction.²¹ Learning communities can be either cohort-based or topic-based. Most of them relate to an educational entity's mission or goals, and they can



engage students, faculty, staff, or all three.²¹ All-faculty learning communities generally focus on scholarly issues, including learning, instruction, or teaching projects.²²

This structure provided OU's librarians with time to work, reflect, and collaborate with one another to build new knowledge and contemplate challenging questions. This faculty learning community used a cohort model, in which adult learners were grouped with their workplace colleagues, because librarians were the targeted participant group. Within the learning community, though, there was an overriding topical focus on instructional design and instructional technology. With this model in place, the library faculty learning community focused on building instructional design knowledge, providing instructional technology experience, and developing a comfort level with e-learning environments, employing the USER model to do so.²³ There were three successive unique iterations of this learning community from 2013 to 2015.

2013–2014 Academic Year

The first version of the library faculty learning community focused on yearlong individual projects to help librarians build their knowledge about the USER model, to

The library faculty learning community focused on building instructional design knowledge, providing instructional technology experience, and developing a comfort level with e-learning environments.

construct a foundation of instructional design knowledge, and to introduce appropriate instructional technology resources. Librarians focused on each phase of the USER model for two months, which allowed them to not only work on concepts collaboratively but also explore ideas independently. Within the time allotted, librarians could also share the questions, applications, and issues they had identified on their own with the larger group. While participation in this learning community was optional, nine of OU's twelve faculty librarians

regularly took part, and several part-time library lecturers also occasionally joined the group throughout the academic year.

Within the learning community and the structure of the USER model, OU's faculty librarians were asked to identify a learning project they could take on and develop over the course of the year. Requesting the librarians to select a problem to address or an instructional scenario to explore, rather than assigning arbitrary projects, grounded the theoretical constructs and technology exploration in relevant, real-world experiences.

From these self-determined projects, OU's librarians began by considering the learning scenario in which their project would be presented. First, a chart developed from Booth's work structured how they could conceptualize the different components of their learning project, including the learner, the context, the content to be taught, and the instructor. Next, the librarians examined a technology tool they thought could be useful to their learning scenario and considered its potential for both students and instructors. This activity encouraged the librarians to think more formally about what their selected tool could—and could not—do, and OU's librarians considered technology resources more intentionally and holistically by exploring these benefits and limitations.



Next, the learning community began to consider how each librarian could create a structure to address his or her chosen learning scenario. To build this structure, the participants used a process of identifying goals, objectives, and outcomes, which asked them to consider the aims of their teaching, the learning students should experience in the lesson, and the skills and behaviors students should demonstrate following the learning experience. These targets enabled the group to gain greater understanding of how to involve students in their own learning and how learners' experiences could extend beyond the specific instructional interaction. This

structure then informed how librarians actually worked to engage learners in their chosen instructional scenarios. To scaffold this next phase of the process, a guide for implementation planning was created to help ensure that librarians considered the components, resources, and issues they needed to plan for within their instructional design. These prompts were designed to mitigate challenges as much as possible ahead of the instructional interaction. A sample assessment form was also developed for librarians to use (or at least consider) in collecting data on their learning design. Since revision and evaluation are essential components of any instructional design model, this tool was designed to help librarians gather feedback from many points of inquiry, including librarian colleagues, subject-area faculty, and learners.

This initial learning community was intended to conclude with time for reflection on each librarian's designed learning scenario and how it could be revised or reused in the future, but this last step did not fully happen. As the learning community members made sense of the first three phases of Booth's USER model, they sought to fully understand these ideas in their own practices before deploying learning experiences for students. Therefore, reflection happened within the community itself and largely through group discussion: the librarians considered the process of grappling with instructional design and instructional technology and the learning community's impacts on practice. Anecdotally, OU's librarians felt that engaging in the learning community had influenced their thinking about designing instruction, both online and in person. Moreover, they believed they would reuse and repurpose this knowledge in future instructional interactions.

Participants shared their thoughts on how the learning community model could be used to address other instructional needs. For instance, the librarians reported needing to engage more in online learning as they considered how to reach learners via the university-provided course management system and online learning tools. They also commented on their desire to design learning resources together that could then address broader needs. Finally, they spoke of wishing for a more condensed timeline so librarians could engage in the community with greater flexibility.

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Fall 2014 Semester

Using the hands-on experience, foundational understandings, and anecdotal feedback generated from the 2013–2014 learning community, the author created a semester-long learning community for the fall of 2014. Instead of asking librarians to select an instructional project to work on independently, she used the ACRL Framework for Information Literacy for Higher Education as a scaffold around which participants could construct their understandings and reflect on their experiences in small groups. OU's librarians expressed a need to conceptualize how each of these six new information literacy frames could be explored and understood in library instruction, especially online. The group decided to divide the frames in half and tackle three during the fall semester. Participation was optional, but eight of the twelve faculty librarians and one part-time library lecturer took part.

First, OU's librarians identified which information literacy frame was of the most interest, the greatest usefulness, or both to their daily work. From this selection, they formed small, focused groups that tackled one of the following information literacy frames: research as inquiry, searching as strategic exploration (at that time named "searching as exploration"), and scholarship as conversation. Each group aimed to work through the USER model over the course of the semester to better understand the chosen frame and to create an online resource to add to the libraries' repository of tutorials. The intent was that, within a time-bound structure, librarians could build their understanding of the new information literacy frames while developing online content that could be useful for all.

To facilitate this work, the learning community met five times. Three of the meetings were face-to-face work sessions during which groups could process their frames and develop learning resources employing the USER model. Two online synchronous meetings in WebEx, the university's virtual meeting tool, took place between the face-to-face sessions. These were useful for discussing progress, sharing questions, and identifying issues.

Much like the librarians working independently on projects in the prior learning community, the subgroups varied in how they progressed through the USER model and in their content development. Each group grappled with its information literacy frame and how the frame could manifest itself as a learning issue for individuals or in class instruction. Some moved into how they would structure a learning interaction to consider the frame, and one group developed preliminary tools that learners could use—either independently or in the context of a course—to make sense of their particular frame, research as inquiry. In the broader learning community discussions, it became apparent that to truly grapple with the information literacy frames, the participants needed to consider the frames in relation to one another. Searching as strategic exploration, for example, overlapped in many ways with research as inquiry; furthermore, considering scholarship as a conversation was essential to both concepts.

Winter 2015 Semester

From the fall 2014 learning community experience, the author identified several changes that could be made for a subsequent learning community that explored the Framework.



First, instead of working in small, disconnected groups, the learning community might better explore the information literacy frames as a large group. Also, OU's librarians found it difficult to broadly consider their frames without applying them to a specific context. Since each faculty librarian engaged in different types of liaison librarian work within his or her assigned academic unit, the more standardized instructional contexts of WRT160 and LIB250 offered lenses through which to view the information literacy frames. Finally, this learning community's end goal had been to produce learning objects ready for use, but as librarians were still building their knowledge of these concepts, this goal may have been impractical. A future iteration, then, could take a step back and focus instead on building librarians' knowledge first.

From this learning community of small groups, the author designed and deployed another learning community in the winter 2015: a whole-group community that continued to grapple with the Framework to better understand what information literacy means in twenty-first century academic libraries. Again, in this iteration, participation was optional, but eight of the twelve faculty librarians and two part-time library lecturers regularly participated throughout the semester. The members of this large group decided to focus on the three frames they had not yet explored: authority is constructed and contextual, information creation as a process, and information has value. To continue to practice employing the instructional design principles embedded in the USER model while also engaging with technology tools that could be used in teaching, the group examined how to understand and structure each frame in monthly face-to-face meetings. They then followed up these discussions with a synchronous online meeting, where they shared ideas for how they might engage learners in this concept (including with technology tools) and discussed means of assessment and revision for future iterations.

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Measuring the Impact

Research Design

At the conclusion of the winter 2015 learning community, the author sought to assess the impact of learning communities on her colleagues' attitudes toward, practices in, and perceived self-efficacy in—that is, their belief in their ability to successfully accomplish—instructional design and instructional technology. To make this assessment, she used a qualitative case study methodology.²⁴ This approach best fits investigating the impact of the learning communities because the program under examination is bounded, par-



ticularistic, contextual, and concrete. Using a qualitative case study methodology, then, can help identify how *this* program impacted academic librarians in *this* environment. While not generalizable, this approach may help other academic librarians to consider how similar programs would be structured or focused in their specific institutions.

To consider this bounded and particular case in context, the author reflected on the learning community's experiences and examined the documents she created as the learning facilitator. These documents included agendas, meeting minutes, job aids, and learning objects. However, considering participants' experiences within the learning community structure was most essential to understanding the impact of this professional learning initiative. To gain insight on their experiences, the author designed an Institutional Review Board-approved survey that asked participants to anonymously share information on their behavioral, attitudinal, and self-efficacy impacts (see Appendix). This survey was developed using several validated instruments.²⁵ Likert-style questions allowed the respondents to express how much they agreed or disagreed with particular statements. The questions asked respondents to reflect on their attitudes and beliefs and to indicate whether they had engaged in new behaviors or measured their behaviors. A self-efficacy scale measured respondents' perceptions of their own abilities, and free-response questions offered them an opportunity to share qualitative feedback on the most and least useful aspects of the learning community, as well as how the learning communities had impacted their practices or thinking. This survey was sent to both the full-time library faculty and part-time library lecturers, regardless of participation in the learning communities, and seven respondents completed the instrument.

Results

Most individuals found that their participation in the various learning community iterations had positively impacted their attitudes and beliefs. Notably, all respondents either agreed or strongly agreed that participation in the learning communities had:

- Helped them know how to select effective instructional approaches to guide student thinking and learning in information literacy.
- Reinforced that incorporating technology into instruction helps students to learn.
- Assisted in integrating new activities into instructional practices.
- Made participants more likely to use technology to support library instructional standards.
- Facilitated designing new learning experiences using technology.

Similarly, most respondents stated that participation in the library faculty learning communities had influenced their behaviors. Participants noted that their engagement in the learning communities had facilitated using technology to support instructional standards, as well as problem-based learning, in their instructional interactions. In other cases, respondents reported that they had not yet incorporated specific practices into their instruction as a result of the learning community but intended to do so.

On the survey, respondents also indicated they had high levels of self-efficacy as a result of their participation in the learning communities. Those who had participated were confident they could find new technology tools to integrate into instruction and



Table 1.

Changes in attitudes and beliefs experienced by library faculty as a result of participating in the learning communities

<i>My participation in the faculty learning community has made me feel that ...</i>				
	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
I know how to select effective instructional approaches to guide student thinking and learning in information literacy.	0	0	6	1
I know how to assess student performance in an instructional interaction.	0	4	3	0
I can adapt my instruction based on what students currently understand or do not understand.	0	1	6	0
I can adapt my instructional style to different learners.	0	2	5	0
I can assess student learning in multiple ways.	1	0	5	0
I am familiar with common student understandings and misconceptions.	0	3	3	1
A variety of technologies are important for student learning.	0	2	1	4
Incorporating technology into instruction helps students learn.	0	0	5	2
Content knowledge should take priority over technology skills.	0	0	2	5
Most students have so many needs that technology use is a low priority.*	0	6	1	0
Student motivation increases when technology is integrated into the curriculum.	0	2	4	1
Teaching students how to use technology isn't my job.*	1	4	2	0
There isn't enough time to incorporate technology into instruction.*	1	5	1	0
Technology helps instructors do things with their classes that they would not be able to do without it.	0	0	3	4
Knowledge about technology will improve my instruction.	0	0	2	5
Technology might interfere with "human" interactions between instructors and students.*	2	5	0	0
Technology facilitates the use of a wide variety of instructional strategies designed to maximize learning.	0	1	3	3

*For these questions, the responses "Strongly disagree" or "Disagree" represent a positive response.



Table 2.

Changes in practices made by library faculty as a result of participating in the learning communities

<i>My participation in the faculty learning community has made me more likely to ...</i>	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
Integrate new activities into my instruction.	0	0	5	2
Locate and evaluate educational technologies, including software, hardware, and online resources for use with students.	0	1	4	2
Use a variety of software tools and electronic resources to support learning.	0	0	6	1
Use technology to support project- and problem-based learning activities in my classroom.	0	0	6	1
Use technology to help support library instructional standards.	0	0	5	2
Employ technology to meet the individual needs of a variety of students in my instruction.	0	0	6	1
Design new learning experiences using technology.	0	0	5	2

create engaging face-to-face learning experiences that used technology as appropriate. They also believed they could develop meaningful online learning experiences employing the USER model. However, participants were not as confident in their ability to assess student learning or to measure the impact of their instruction.

Those who had participated were confident they could find new technology tools to integrate into instruction and create engaging face-to-face learning experiences that used technology as appropriate.

of exploring and assessing different technology tools within the learning community structure. However, one comment indicated that a lack of sharing of implementation was the least useful component of the learning communities.

Finally, study participants' responses to the survey's open-ended questions largely reinforced their generally positive responses throughout the rest of the survey. For several respondents, engaging with colleagues in exploring concepts around instructional design was most useful. Two individuals singled out learning about the USER model as particularly relevant to their work. Others commented on the usefulness



Table 3.

Survey respondents reported their behaviors had changed as a result of participating in the learning communities

Because of my participation in the faculty learning community, I have . . .	No (1)	Not yet, but intend to (2)	Yes (3)
Integrated new activities into my instruction.	1	2	4
Located and evaluated educational technologies, including software, hardware, and online resources for use with students.	1	2	4
Used a variety of software tools and electronic resources to support learning.	0	3	4
Used technology to support project- and problem-based learning activities in my classroom.	1	1	5
Used technology to help support library instructional standards.	0	1	6
Employed technology to meet the individual needs of a variety of students in my instruction.	1	4	2
Designed new learning experiences using technology.	0	3	4

Respondents indicated that the learning community experience provided an instructional design scaffold they may previously have lacked. One participant called it a set of “clear, systematic and evidence-based tools for thinking about and putting into practice instructional design and technology.” Another noted that the experience had “reinforced my thinking about instructional design . . . [and] change[d] my thinking about the value of finding new technology tools to achieve specific learning objectives.” Respondents commented on the impact the learning communities had on their design processes (“It has forced me to focus more on learning objectives”), on their reflective practices (“[This] has changed the amount of revision/ reflection/ assessment I do of my teaching”), and on the tools they use in teaching (“I have a broader set of tools now that I can [use] . . . to more effectively teach and design learning experiences”). Of course, not all respondents’ comments were positive; one individual indicated that participation had not changed his or her thinking or practices in instructional design or instructional technology.



Table 4.
 How survey respondents identified their levels of self-efficacy in using technology in instruction as a result of the learning communities

	<i>Based on your participation in the faculty learning community, rate how certain you are that you can...</i>										
	Cannot do at all (0)	1	2	3	4	Moderately certain can do (5)	6	7	8	9	Highly certain can do (10)
Find new technology tools to integrate into my instruction.	0	0	0	0	0	0	0	1	2	0	4
Develop goals, objectives, and outcomes for learning experiences.	0	0	0	0	0	2	1	0	0	0	4
Create engaging face-to-face learning experiences that use technology as appropriate.	0	0	0	0	0	0	0	1	1	2	3
Create engaging online learning experiences.	0	0	0	0	0	1	0	0	2	1	3
Assess student learning and understanding.	0	0	1	0	1	1	0	0	1	1	2
Measure the impact of my instruction.	0	0	2	0	0	2	1	0	0	1	1
Engage in online learning environments.	0	0	0	0	0	0	1	0	3	1	2
Design learning experiences using the USER model.	0	0	0	0	0	0	2	0	1	2	2



Discussion

The survey results reinforced the evidence observed throughout the three iterations of the learning communities and through reviewing the artifacts and documents produced by the groups. Study participants spoke to the development of their instructional design skills, as well as their increased ability to find and evaluate technology tools, as a result of the learning communities. These were the primary goals of the professional development programs, even though later versions focused on the ACRL Framework. The data from those who took part in the learning communities reinforced the off-the-cuff comments and informal feedback received along the way. The learning communities, with their built-in time for independent and collaborative work, facilitated librarians' learning in instructional design and instructional technology in ways that influenced their practices and paradigms.

There does appear, though, to be a gap between understanding within the learning community and actually putting this understanding to work in everyday practices. While many respondents indicated they had integrated facets of the learning communities into their instructional practices, others admitted they had not done so but intended to at

some point. This response may have been selected for a variety of reasons: individuals might not yet have had the opportunity to integrate specific practices organically into their work; practices or tools shared might not have connected with an individual's instructional responsibilities; or individuals might not have had sufficient time to plan, design, and incorporate practices into their teaching. While these factors may be outside the scope—or indeed, the influence—of the learning community structure, any future iteration should consider how to more effectively equip participants to incorporate new practices into their instruction. For example, ongoing support for the faculty learning community after the formal sessions had ended might help to translate learning to practice.

The survey responses also revealed that OU's librarians do not feel equipped or fully comfortable in assessing student learning or the impact of their instructional efforts. Responses to both the self-efficacy scale and the Likert-style attitudes and beliefs questions highlighted this issue. While this was not a primary goal of the learning community sequences, assessing learning was an important component in both small- and large-group discussions, especially as

The learning communities, with their built-in time for independent and collaborative work, facilitated librarians' learning in instructional design and instructional technology in ways that influenced their practices and paradigms.

Future iterations of the learning community structure that emphasize assessment and evaluation—in many different forms (for example, formative, summative, and confirmative) and with many different tools (for example, online and face-to-face resources)—may be useful.



librarians worked through the Framework concepts. Moreover, assessment and evaluation are essential elements of any instructional design process. In academic climates embracing data-driven decision-making, assessment is an increasingly important skill for academic librarians to have to illustrate their value and impact. Future iterations of the learning community structure that emphasize assessment and evaluation—in many different forms (for example, formative, summative, and confirmative) and with many different tools (for example, online and face-to-face resources)—may be useful.

Study Limitations

While these data illuminate a particular group of librarians' perceptions about their growth and development as part of a learning community, the study has several limitations. As a qualitative case study, it is bounded by its context and situational factors; in its very nature, it does not seek to be generalizable. Instead, it investigates a particular program in a particular institution. Also, the survey asks respondents to self-report their attitudes, behaviors, and sense of self-efficacy; perception and reality may not always align. Although the study specifically asked respondents to reflect on their participation in the faculty learning community, there was no benchmarking initial inventory to which respondents' answers could be compared. Moreover, the study design asked participants to think back to their experiences over two years of professional learning opportunities, rather than gauging attitudes, behaviors, and self-efficacy at various points along the way. This retrospective approach may have led to participants' responses being more positive or more negative depending on their most recent experiences rather than on their start-to-finish learning or growth.

As academic librarians' responsibilities change and develop, such areas as instructional design, online learning, and assessment may become even more important, and therefore future research in best practices may also be increasingly useful.

Future Research and Next Steps

These library faculty learning communities—and the accompanying data on participants' attitudes, practices, and self-efficacy as a result of this professional learning—present a starting point for future research on what meaningful, job-embedded professional development might look like. As academic librarians' responsibilities change and develop, such areas as instructional design, online learning, and assessment may become even more important, and therefore future research in best practices may also be increasingly useful.

The data in this case suggest that the academic librarians who participated in focused professional learning communities gained experiences that influenced their perceptions of their instructional and technology work. Future research that more comprehensively considers *how* learning communities influenced thinking or practices, or studies that can draw correlations between specific learning structures and performance, may help to further develop this notion.



Instructional design, by its very nature, is a process: It is iterative and involves revision and reconsideration along the way. While the work of the learning communities embodied this idea, the actual group structure also moved through various stages to meet librarians' needs. From the foundation of instructional design knowledge built in the first learning community, other focus areas (that is, the Framework) could become clear. Study participants spoke to another future focus area, assessment and evaluation, in their survey responses. Within the learning community structure itself, the author worked to model the notion that assessment and evaluation are ongoing processes, and this may be a building block for the future. Review and revision are not the final steps in an instructional design process but instead weave throughout each phase, as evidenced in the three learning communities. As this model of professional learning continues to evolve, evaluation of the impact of future programs may determine ways that other library organizations and groups can adapt instructional design-focused learning communities.

Acknowledgment

A version of this paper titled "Cultivating a Community of Learners: Building a Faculty Learning Group by Bringing Immersion Home" was published in the 2015 Association of College and Research Libraries Conference Proceedings. While this article contains some of the same content—particularly in the "Literature Review" and "Professional Learning at Oakland University Libraries" sections—the information has been considerably reorganized. This article also presents new data collected through the course of this case study. Based on these data, new conclusions and future directions are suggested.

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Appendix

Survey Questions

Library Faculty Learning and Development: Attitudes of, Practices in, and Perceptions of Self-Efficacy Regarding Instructional Design and Technology

My participation in the faculty learning community has made me feel that . . . (rated on a scale of Strongly disagree, Disagree, Agree, Strongly agree)

- I know how to select effective instructional approaches to guide student thinking and learning in information literacy.
- I know how to assess student performance in an instructional interaction.
- I can adapt my instruction based on what students currently understand or do not understand.
- I can adapt my instructional style to different learners.
- I can assess student learning in multiple ways.



- I am familiar with common student understandings and misconceptions.
- A variety of technologies are important for student learning.
- Incorporating technology into instruction helps students learn.
- Content knowledge should take priority over technology skills.
- Most students have so many needs that technology use is a low priority.*
- Student motivation increases when technology is integrated into the curriculum.
- Teaching students how to use technology isn't my job.*
- There isn't enough time to incorporate technology into instruction.*
- Technology helps instructors do things with their classes that they would not be able to do without it.
- Knowledge about technology will improve my instruction.
- Technology might interfere with "human" interactions between instructors and students.*
- Technology facilitates the use of a wide variety of instructional strategies designed to maximize learning.

*For these questions, the responses of "Strongly disagree" or "Disagree" represent a positive response.

My participation in the faculty learning community has made me more likely to . . . (rated on a scale of Strongly disagree, Disagree, Agree, Strongly agree)

- Integrate new activities into my instruction.
- Locate and evaluate educational technologies, including software, hardware, and online resources for use with students.
- Use a variety of software tools and electronic resources to support learning.
- Use technology to support project- and problem-based learning activities in my classroom.
- Use technology to help support library instructional standards.
- Employ technology to meet the individual needs of a variety of my students in instruction.
- Design new learning experiences using technology.

Because of my participation in the faculty learning community, I have . . . (selected No, Not yet but intend to, or Yes)

- Integrated new activities into my instruction.
- Located and evaluated educational technologies, including software, hardware, and online resources for use with students.
- Used technology to support project- and problem-based learning activities in my classroom.
- Used technology to help support library standards.
- Employed technology to meet the individual needs of a variety of students in my instruction.
- Designed new learning experiences using technology.

Based on your participation in the faculty learning community, rate how certain you are that you can . . . (rated on a scale from Cannot do at all [0], 1, 2, 3, 4; Moderately certain can do [5], 6, 7, 8, 9; Highly certain can do [10])



- Find new technology tools to integrate into my instruction.
- Develop goals; objectives, and outcomes for learning experiences.
- Create engaging face-to-face learning experiences that use technology as appropriate.
- Create engaging online learning experiences.
- Assess student learning and understanding.
- Measure the impact of my instruction.
- Engage in online learning environments.
- Design learning experiences using the USER model.

Free response prompts:

- What was the most useful aspect of the faculty learning community on instructional design and technology?
- What was the least useful aspect of the faculty learning community on instructional design and technology?
- How has the faculty learning community changed your thinking about instructional design and/or technology?
- How has the faculty learning community changed your practices of instructional design and/or technology?

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