Librarians as Faculty Developers: Shaping Disciplinary Classroom Experiences through Information Literacy

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Involvement in faculty development is a promising approach to realizing academic libraries' goals for information literacy. This study examines an inter-institutional program where librarians partnered with classroom instructors to create projects where students learned to use information in disciplinary ways. Using thematic analysis to examine participant materials, the findings suggest that the informed learning design model underpinning the program supported the creation of information-rich projects and fostered a sense of empowerment in librarians serving as faculty developers. Librarians can advance their role as educators by partnering with classroom instructors and presenting information literacy as a way to foster disciplinary learning.

Introduction

For higher education students to learn the theories, practices, and concepts of their disciplines, they often have to engage in disciplinary information practices. For example, when learning about astronomy, students may need to understand how an astronomer goes about reading scholarship in that field (Durisen & Pilachowski, 2004). As experts in their field, instructors are not always aware of the challenges students face in trying to use information to be successful in their courses (Riegler, 2020). Knowledgeable of the nuanced ways in which people use information in disciplinary and professional contexts, academic librarians are uniquely positioned to design instruction aimed at increasing students' awareness of the critical role information plays in their learning process. Yet, academic librarians typically have limited access to students in the classroom.

One approach to integrating information literacy (IL) into disciplinary courses is for academic librarians to offer professional development in which they train or work with class-

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room instructors to develop instruction. Made possible in part by a grant from the Institute of Museum and Library Services (IMLS), a project called Creating Informed Learners in the Classroom (CILC) was conducted between 2019 and 2023 (Maybee). In this project, 15 academic librarians and 15 classroom instructors at three research universities (University of Arizona, University of Nebraska, Lincoln, and Purdue University) partnered to develop IL student projects. Librarians and instructors were introduced to "informed learning design," an educational design model that emphasizes the relationship between learning to use information and learning about disciplinary content (Maybee et al., 2019). Creating coursework for disciplinary courses, each librarian-classroom instructor team worked together to develop learning objectives, activities, and an assessment strategy to enable students to use information in ways that support learning. In the year following the CILC project, the student projects were implemented in courses taught by the instructor participants.

The project team studied the usefulness of the informed learning design model to support academic librarian, as well as classroom instructor, partnerships to integrate IL into disciplinary courses. The study used thematic analysis to examine materials created by participating librarian-classroom instructor teams, including post-implementation reports each team wrote describing the outcome of the implemented student projects and reflections composed by librarians about the collaboration. Findings suggested that the informed learning design model supported the creation of information-focused learning goals, which guided the development of the IL student projects. The design model also fostered the exploration of learning goals generally and enabled instructors to identify ideas for continuous refinement of student projects thus enabling students to use information to learn in disciplinary contexts. The design model supported librarians in their partnerships with instructors and empowered them to shape student learning experiences.

Literature Review

Libraries and Faculty Development

Faculty development involves working with instructors outside of the classroom to improve teaching and learning. Recognizing potential gains for IL, academic librarians have argued for decades for involvement in this type of instructional work (Iannuzzi, 1998). Grafstein suggested that teaching IL should be a shared practice between instructors and librarians (2002). The librarian community has long advocated for librarian-faculty partnerships to support students learning about information literacy (Kenedy & Monty, 2011; Racelis, et al. 2020; Black et al., 2001). Smith stated giving up instructional duties to work with instructors outside the classroom was necessary for academic librarians to be able to integrate deeply into higher education (1997).

Librarians' involvement in faculty development offers a countervailing perspective on traditional library instruction that values and prioritizes librarians providing direct instruction to students. The efficacy of one-shot instruction is debated in key publications in the field, such as the *College & Research Libraries*' special issue on the topic (2022). Vossler et al. noted the mixed track record and high cost of prioritizing one-shot instruction (2023). Reflecting on findings from a Delphi study of IL experts, Saunders argued that librarians should deepen partnerships with faculty on IL instruction and assignment design, as working with instructors better aligns IL with curricular goals and demonstrates the importance of IL to learning (2009). Working in collaboration with instructors elicits the benefits of sustainability

and scalability of librarians' instructional efforts, and this approach is more likely to achieve alignment between IL efforts and an instructor's learning goals (Maybee, 2018).

Several programmatic examples of librarian involvement in faculty development are described in the library and information science literature. Wishkoski and colleagues described three faculty development workshops that enabled disciplinary faculty to redesign research-focused assignments, impacting about 700 students (2018). Bowles-Terry et al. led faculty development workshops to guide faculty in the development of research-focused courses and assignments aligned with their university's learning outcomes (2017). Both studies found that academic libraries are uniquely positioned to provide interdisciplinary development opportunities for faculty to improve their teaching.

Recent literature reviews of faculty development focused on IL indicate that the benefits of librarians serving in faculty development roles include an increased ability to integrate IL into curricula (Hammons, 2020) and a positive impact on student performance (Hammons, 2022). Yet, academic librarians must first view themselves as educators before they can assume a faculty development role. Without identifying as an educator, a librarian may not feel comfortable or effective serving as a faculty developer. Flierl and colleagues explored librarians' experiences in a campus faculty development program (2019). Their phenomenographic analysis suggests that a variety of experiences is possible for librarians serving as faculty developers, ranging from someone who simply provides resources for talented faculty to co-educators engaging in mutually beneficial dialogue. Some academic librarians acting in faculty development roles argue that to be effective faculty developers, librarians need institutional support for professional development in teaching and learning (Becksford, 2022; Flierl et al., 2020). While some LIS programs may have coursework for instruction, faculty development requires a different skillset, and perhaps, classroom teaching experience.

Institutional buy-in can be integral to faculty development, and the effort to achieve buy-in can be developed by a library, a department, or an institution. Jumonville described the libraries working with faculty to integrate IL into their courses as part of a course grant program associated with an institutional assessment mandate (2014). Other research found success in focusing on "reimagining" research-focused assignments via a library-led community of practice (Saines, 2019). Purdue's Instruction Matters: Purdue Academic Course Transformation (IMPACT) campus-wide, semester-long program partnered librarians with instructional developers in interdisciplinary teams of faculty to redesign courses in which IL is an important pedagogical consideration (Maybee, 2018; Levesque-Bristol et al. 2019).

For academic librarians wishing to support learning through faculty development, it may be more useful to focus on learning goals at the course or curricular level and to work in collaboration with campus partners, such as teaching centers. Using the 2019 Flierl article's analysis (2019) as a starting point, Bowles-Terry and Sobel concluded that libraries partnering with faculty development centers are likely to be more effective than faculty development by academic libraries alone (2022). Gibson and Mader agreed, indicating that librarians should seek other campus partnerships that focus on teaching and learning in higher education broadly, to realize academic librarians' capacity as educators (2019).

Informed Learning Design

Faculty development programs in academic libraries are typically underpinned by an IL model. The ACRL *Framework for Information Literacy in Higher Education* (2015) has been used to support

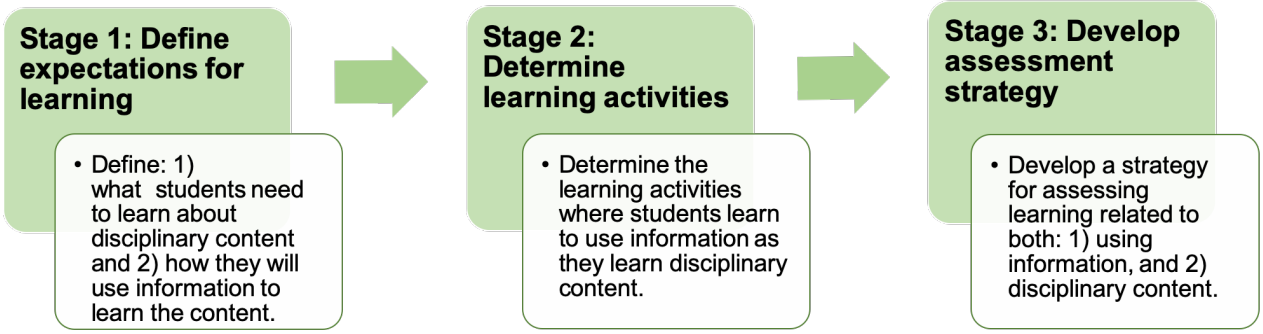
instructors developing IL assignments (Wishkoski et al., 2018). The CILC project utilizes informed learning design, which is especially apt for faculty development because it emphasizes the role that IL plays in enabling students to meet disciplinary learning goals (Maybee et al., 2019).

Informed learning design builds on informed learning, an approach to IL grounded in decades of theoretical and empirical research, which argues that using information is a fundamental part of learning (Bruce, 2008). Informed learning moves beyond a conception of IL as a set or sequence of skills (ACRL, 2000; Kuhlthau, 1993) to propose a "relational" approach to learning that views learning as developing new ways of understanding a topic (Bruce, 2008). Informed learning has been studied in a variety of contexts including teen social media use (Harlan et al., 2012), organizational management (Somerville, 2009), and higher education (Hughes & Bruce, 2012; Maybee et al., 2017). Informed learning holds three core principles:

1. build on learners' previous experiences of using information to learn
2. emphasize learning to use information and disciplinary content simultaneously, and
3. foster new awareness of both using information and disciplinary content (Hughes & Bruce, 2012).

Informed learning design describes a process for designing instruction that enables students to learn course content through the intentional use of information (Maybee et al., 2019). Leveraging the principles described above, informed learning design involves three stages (see Figure 1).

FIGURE 1
Stages of Informed Learning Design (Adapted from Maybee et al., 2019)



Informed learning design draws from variation theory, which suggests that, while there are many things one can learn about a subject, there are "key" things that students need to become aware of to learn as the instructor intends (Marton, 2014; Marton & Tsui, 2004). Informed learning design provides a framework for determining the key things related to using information and subject content students need to become aware of to be successful in a course or assignment.

Stage 1 of informed learning design focuses on the instructor's intentions for learning by identifying the content knowledge they want students to become aware of and determining how students need to use information to learn that content (Maybee et al., 2019). In Stage 2, the instructor determines the learning activities the students will engage in. Providing opportunities for learning to use information while simultaneously learning about the content, informed learning activities are often experiential and mirror disciplinary practices. Stage 3 of the design process focuses on developing a strategy for assessing learning, where students

receive feedback related to both their knowledge of and abilities to use information and their understanding of subject content.

Methods

This study investigated how informed learning design in the CILC project was supportive of librarians collaborating with classroom instructors to design student projects where students use information to learn. The research question guiding the study was:

> How does informed learning design support collaboration between academic librarians and classroom instructors to enable the creation of student projects in which students use information in disciplinary learning environments?

Aligned with the primary research question, the study was guided by two sub-questions:

- How does informed learning design enable academic librarians in their collaborative work with classroom instructors to design student projects in which students use information in disciplinary learning environments?
- How does informed learning design enable the creation of student projects in which students learn to use information in disciplinary learning environments?

Thematic analysis was selected as the research method for this study. Thematic analysis is a theoretically flexible method that allows for different approaches to identifying patterns and themes across qualitative data sets (Maguire & Delahunt, 2017). Braun and Clarke proposed a six-phase guide for conducting thematic analysis: 1) Become familiar with the data, 2) Generate initial codes, 3) Search for themes, 4) Review themes, 5) Define themes, and 6) Write-up (2006). Thematic analysis is iterative in nature, allowing for recurring phases of coding and analysis of the patterns emerging from the data. The research team followed Braun and Clarke's framework of moving from a broad impression of the project documents to coding, to analysis (2006).

Participants

Fifteen librarian-classroom instructor teams participated in a four-week program to design student projects that guided students to learn disciplinary content while also learning to use information. Classroom instructor and librarian participants were invited to participate in an institutional review board-approved research study (IRB#2020-232) to investigate how the informed learning design model supports collaboration to enable the creation of student projects in which students use information in disciplinary learning environments. Participation in the study was completely optional and did not factor into any aspect of participants' involvement in the CILC project. Eight teams agreed to participate in the research study. One team included two classroom instructors and one librarian, bringing the total number of participants in the study to seventeen. The classroom instructors came from various disciplines, including forensics, professional writing, pharmacy, journalism, music education, teacher education, environmental sociology, and chemistry.

Data Collection

Worksheets, librarian reflections, and post-implementation reports prepared during the CILC program were collected for analysis. Three worksheets were completed by the librar-

ian-classroom instructor teams to guide their collaborative efforts at the three stages of the informed learning design model: 1) defining expectations for learning (i.e., learning goals), 2) determining activities to address those goals, and 3) developing a rubric to transparently communicate expectations to students. In reflections collected at the end of the CILC program, librarians described their experiences of the collaboration, the benefits and challenges of using the informed learning design model for co-designing student projects, and how they would apply insights and takeaways from participating in the program to their practice as academic librarians. Post-implementation reports collected after the teams had implemented their student projects described aggregated student performance, insights about learning from the student projects, major takeaways from reading the student reflections about their learning, and proposed improvements for future iterations.

Analysis

Aligned with Braun and Clarke's thematic analysis framework (2006), the research team became familiar with the project documents and conducted a round of natural language coding. The codes derived from this process were used to develop a codebook; however, the research team determined through application that some of the codes were overly broad in scope. A sub-team analyzed the codes in conjunction with the research questions and the evidence from the project documents to create a revised codebook used for a second round of coding. The team met to norm on the codes across the project documents. This process concluded when no new themes emerged, meaning analytical saturation was reached. Following the coding process, the research team identified themes that were arranged into thematic categories, which comprise the major findings for the study.

Findings

The analysis of the data resulted in two thematic categories: 1) Shifts in Student Learning Goals, and 2) Librarians as Empowered Collaborators. The thematic categories describe how informed learning design supports collaboration between academic librarians and classroom instructors to enable the creation of student projects in which students learn to use information in disciplinary contexts.

Thematic Category One: Shifts in Student Learning Goals

The analysis of the worksheets and post-implementation reports revealed shifts in librarian-classroom instructor teams' articulation and framing of their learning goals. These changes were documented in the initial learning goals worksheet and in reflections on students' learning described in the post-implementation reports. Participant teams shifted their learning goals in response to: 1) engaging with informed learning design to communicate information-focused goals, and 2) recognition of broader learning goals, or 3) student performance and learning outcomes described by students.

Information-Focused Goals

Engaging with informed learning design prompted instructors to emphasize information-focused learning goals. Teams typically identified three to five learning goals to guide the development of their student projects. The most common learning goals were information-focused goals, such as effectively communicating with information, evaluating information, and synthesizing informa-

tion. Librarians recognized that this emphasis on information-focused goals was different from the status quo as instructors typically emphasize content-focused learning goals. The librarian working with the forensics course suggested that informed learning design shifts an instructor's focus toward how they personally use information in their discipline, saying: "Instructors tend to think about what do they want their students to learn, and informed learning reminds them to reflect on their own information seeking behaviors" (Librarian, forensics course).

Similarly, the librarian partnering with the climate change classroom instructor noted that forefronting information use led to more intentional identification of information-focused learning goals.

Broader Goals for Learning

Instructors identified additional learning goals that were often related to broader course-level goals. In addition to the learning goals instructors initially identified to guide student projects, instructors articulated in their worksheets and post-implementation reports learning goals that extended beyond the scope of the student projects but that the instructors described as important. For example, the instructor of the music education course reflected a desire for students to recognize that the project was intended to prepare them for their careers. This learning goal was not directly reflected in the stated student project goals, which focused on conducting an action research project. However, the instructor described the completion of the action research project as indication that the students: "have learned how to develop long-range lesson and curriculum planning, deliver lesson content, assess student learning and document growth, and reflect upon the outcomes in order to improve future teaching and learning" (Instructor, music education course).

The instructor of the forensics course reflected on students learning about the discipline broadly. Reviewing the student reflection comments, the forensics instructor noted that the students emphasized that "forensic evidence is much more difficult to collect and analyze than shown on TV." While the stated goals for the student project focused on using information, the need for students to recognize that forensic work was more rigorous and scientific than commonly depicted was an overall concern of the course that the instructor recognized post-implementation.

Goals Identified by Students

Reflection proved fruitful for several classroom instructor participants. Post-implementation reflection on student performance and students' perceptions of their learning prompted articulation of additional learning goals. The forensics instructor described the need to develop an additional learning goal focused on collecting information. The instructor of the writing course found from the students' reflections on their learning that they missed the opportunity to tailor their public health campaign to their local audience because they continued to believe that their information sources must be broadly recognized. The instructor reflected that they perhaps should draw on more broad forms of evidence in future iterations of the course:

> [I want my students to see that] there's more to research than sources and bibliographies, and that there's more to COVID-19 research than the same "authorities" everyone else has been citing. … research isn't just about name recognition,

> it encompasses timely and credible information from sources and source types that aren't quite so obvious (Instructor, writing course).

The writing instructor also recognized that students did not find information about the audiences' communication habits and preferences, which was an important yet tacit goal of the project that should be more explicitly addressed to help students learn in the project in future implementations.

Students sometimes expressed unintended learning outcomes in their reflections that resonated with instructors, leading to the inclusion of new learning goals for future offerings. Students in the chemistry course reported an increased appreciation for the need to examine the figures (i.e., data plots) in articles to enable them to understand the results. Realizing that many students did not engage with figures as they had assumed that they would, the chemistry instructor came to recognize the need for a learning goal specifically focused on strategies for reading scientific articles. The instructors of the pharmacy course reported that some students created visual representations of themselves as a way of presenting their personal and professional identities. Recognizing the value in alternative ways of presenting information, the instructors are considering creating a new learning goal focused on visual representation for future iterations of the course.

Thematic Category Two: Librarians as Empowered Collaborators

The librarian reports revealed that librarians were empowered as collaborators in assignment design. This was a rare or new role for some of the project's librarian participants, who were more accustomed to interacting with instructors in response to a particular request. Librarian empowerment was supported by the guidance offered by informed learning design, and more specifically, by the shared language provided by the design model.

Librarians felt empowered to shape student experiences. Guided by the informed learning design model, librarian participants recognized their role as mediators, sounding boards, partners, consultants, and as guides for prompting productive reflection to help reveal for instructors the disciplinary information practices relevant to their courses. They expressed that the model provided librarian-classroom instructor teams a path for exploring the instructors' pedagogical goals and challenges, as well as how information plays an essential role in learning. As information experts, librarians were able to identify the relevant information practices that are part of a course, unit, or assignment more clearly than disciplinary experts, who are not always conscious of the information practices ingrained in their academic and professional lives. This was exemplified by one librarian, who shared:

> The informed learning framework actually helped me to keep prompting [the instructor] to reflect on what information [she would] use as the discipline expert if she's asked to work on the student project … Also, it's interesting to learn, from interacting with the instructor, that instructors, as experienced information users in their discipline, may not have good clues of how to teach student information literacy. Academic librarians have a good place in integrating IL in course to maximize impact (Librarian, forensics course).

The librarian working with the climate change course described how conversations can increase awareness and bring information-related learning goals to the forefront:

> Where information literacy and students' use of information was previously considered a secondary consideration, our conversations resulted in more deliberate learning outcomes regarding these issues … The faculty member I worked with appreciated having a collaborator who was able to quickly identify opportunities to enhance IL skills in his course. Despite having an awareness of its importance, this wasn't something he necessarily had time for in the past so collaborating with a librarian made this possible (Librarian, climate change course).

In addition to providing a framework for pedagogical conversations, informed learning design provided shared language for librarian-classroom instructor teams. Collaborators who had previously worked together or possessed shared disciplinary expertise, such as a librarian who was a former professional chemist working with a chemistry professor, began the process with some shared vocabulary. This librarian shared that

> This made communication much easier for us as we already had a shared vocabulary and disciplinary understanding allowing us to work efficiently and spend more time debating various goals and choices, regarding what would benefit the students the most in addressing current weaknesses we see in graduate students that need to be addressed (Librarian, chemistry course).

However, for the librarian and instructor pairs who did not begin the project with a shared vocabulary, informed learning design provided one:

> I think foremost it [informed learning design] provided a defined vocabulary for both parties to start from… I think it was having this core concept that could ground conversations and help us focus on improving the assignment using the principles of informed learning design (Librarian, pharmacy course).

With shared vocabulary relevant to course design and information practices, as well as a framework for prompting conversation and reflection, librarian participants acted as empowered collaborators in designing learning experiences. Bringing information expertise to bear, they helped instructors draw out an assignment's information-related learning goals to enhance disciplinary learning. For librarians, using the informed learning design model provided new insights into articulating implicit learning goals related to using information and exploring new roles and capacities for librarians.

Discussion

The perennial challenges academic librarians face in explaining what IL is and why it is important to student learning may be circumvented when IL is framed as an approach for addressing a specific educational problem of interest to an instructor. For the librarians using informed learning design, there was little need to advocate for explicit conversations about

the merits of IL because the conversation remained focused on student learning, which is something inherently of interest to instructors seeking opportunities to develop their pedagogy. While the emphasis of the CILC program was in helping instructors reflect upon and improve a specific assignment, classroom instructors acquired a new lens through which to consider pedagogical improvements, such as designing learning outcomes, assessments, and learning activities that drew out the ways students need to use information to learn disciplinary content. Using informed learning design to develop instruction was not a goal unto itself but rather was presented as a method to overcome an instructional challenge that instructors wanted to address to best support their students.

This study is not without limitations. Like much qualitative research, the research findings are not generalizable to other professional development contexts. First, the research team actively recruited instructors and librarians for participation in the CILC program, so the study's sample population was not random or necessarily representative of the participating R1 institutions. The study has a small sample size with a diverse representation of instructor participants. While this disciplinary diversity was a practical strength for the learning community, it may make findings more challenging to apply to specific disciplinary contexts. Inconsistency in librarian-classroom instructor provided data is another limitation; as is frequently the case with written reflections, some participants were more effusive than others. Finally, it is necessary to acknowledge that the period during which data were collected for this study was the height of the COVID-19 pandemic. CILC facilitators, librarians, and instructors communicated exclusively via email and teleconference while managing a myriad of unique professional and personal challenges brought on by the pandemic. Doubtlessly, the pandemic influenced the courses in which instructors first offered their redesigned assignments; all occurred between the fall 2020 and spring 2022 semesters.

Despite challenges, the collaborations between librarians and classroom instructors to design their student assignments highlighted significant ways in which students need to use information to learn. While the teams began by thinking through intended learning goals and underlying challenges, the conversation shifted to how students are expected to use information in their disciplinary context and how strategic activities that have them simultaneously use information as they engage with disciplinary content may play a role in achieving desired learning goals. Instructors continued to reflect on the connection between information use and the disciplinary learning goals after the design workshops had concluded. In their post-implementation reports, several instructors identified the need to focus on additional learning goals that would better help students successfully carry out their projects.

While not a specific focus of this study, the research team was intrigued by the tendency of the classroom instructors to gravitate towards designing "authentic tasks." Lebow describes authentic activities or tasks as experiences of personal relevance that permit learners to practice skills in environments similar to those in which the skills will be used (1993). The journalism student project provides an example of this in which students analyzed information about the 1918 pandemic from historical news sources. Though the material being evaluated was historical, the tasks students worked on were contemporary and rooted in a particular profession. Likewise, the pharmacy course had students practice ways to promote themselves professionally, and the forensics course had students engaged in forensic practices used to prepare evidence for a trial. This merits future exploration to determine if there are common types of learning experiences in which disciplinary instructors identify a need for IL to enable student learning.

This study suggests that the informed learning design model was supportive of librarian and classroom instructor teams designing student assignments. An essential part of the collaborative process (ACRL, 2000), the design model provided instructor and librarian collaborators common language that helped to bridge varied disciplinary expertise. Yet, a design model on its own does not facilitate embedding IL into curricula in support of student learning. Rather, the informed learning design model provided a useful structure for academic librarians to practice faculty development, regardless of the kinds of collaborations with classroom instructors they were familiar with beforehand. Leveraging the expertise of both instructor and librarian, the informed learning design model provided practical activities and discussion prompts for drawing out disciplinary content and information practices that could frame the librarians' conversations with the classroom instructors.

As librarians continue to take on more faculty development work, they may be better positioned to make meaningful contributions to student learning and to get classroom instructor buy-in by utilizing educational design models, such as informed learning design, that place an emphasis on student learning. Aligning with the findings shared by Flierl and colleagues (2019) of librarians experiencing instructional design as being a co-educator, librarians in this study described feeling like collaborators who made meaningful contributions to improving student learning. Without librarians in this study feeling empowered by the informed learning design model, this project—or similar faculty development programs in libraries—would be much more difficult to execute well. As opposed to librarians addressing a specific instructor need by being brought into the classroom, our findings suggest that there is real value in librarians working collaboratively with faculty to design assignments that support students learning to use information in particular disciplinary or context-driven ways.

Of course, there is labor associated with academic librarians taking on faculty development work. Librarians in this study indicated that it took time and required sustained effort from both parties to maintain the relationship and undertake the design work. Yet, instructors indicate in their post-implementation reports a strong desire to continue to improve their assignments by creating new learning goals and designing more nuanced or tailored activities that enable students to learn to use information as they learn disciplinary content. Recognizing their capacity to help instructors address pedagogical challenges, librarians should seize these opportunities to sustain their partnerships with classroom instructors to design assignments that highlight the role information plays in the learning process. Librarians have the opportunity to engage in faculty development work to deepen and extend partnerships with instructors in support of learning. Librarians can repeatedly leverage informed learning design to collaborate in meaningful and effective ways with instructors to address pedagogical goals.

Conclusion

Findings from this exploratory study provide evidence for the efficacy of the informed learning design model in supporting collaborations between librarians and classroom instructors. Instructors described how more intentional engagements with information could further their disciplinary learning goals for their students. Academic librarians found that the model provided a useful framing for discussing IL in instructors' courses without anchoring the conversation solely on IL. This study finds that the strength of informed learning design in faculty development is that IL is naturally infused into conversations centered on learning. Framing pedagogical discussions around a design model, focusing on collaboratively solv-

ing pedagogical issues, and presenting IL as a solution to a challenge, all proved to be useful strategies.

The study also provides a foundation for future research. A future study could explore the use of informed learning design with a single cohort of academic librarians and instructors working in the same discipline to determine if related backgrounds and similar pedagogic ideas better support the design of assignments that teach students disciplinary information practices. Another study could be conducted that includes participants from institutions in other higher education classifications, such as colleges offering associate and baccalaureate degrees, to allow for a comparison between various educational settings. Such research would build on the study presented here, which suggests strong potential opportunity for future growth in faculty development for and with academic librarians aiming to embed IL into disciplinary curricula.

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