



Incorporating Signature Pedagogies into Library Instruction Through Reflective Pedagogy

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abstract: Librarians provide instruction for students across disciplines, each with their own teaching and learning practices. An exploration of signature pedagogies will help librarians develop a deeper understanding of student learning. This article identifies reflective pedagogy as a teaching strategy librarians can use to expand upon this learning by integrating signature pedagogies into the library instruction classroom. A replicable framework is detailed throughout the article to guide librarians as they develop library instruction that uses reflection to contextualize information literacy within a disciplinary lens and help students make connections to their growing knowledge structures.

Introduction

Librarians provide instruction for a wide range of disciplines and programs over the course of a semester and academic year. With each instruction session, librarians enter a learning environment situated within disciplinary teaching and learning practices, often referred to as signature pedagogies. An exploration of these practices will help librarians better understand student learning taking place throughout the semester and acknowledge that learning within the library instruction classroom. Reflective pedagogy is a framework librarians can use to incorporate these disciplinary signature pedagogies into their teaching practices and create engaging, relevant, and transformative learning experiences.

Signature pedagogies detail the ways students learn in their classrooms and how threshold concepts are taught, providing librarians with a template for classroom practice. According to Lee S. Shulman, signature pedagogies are the “types of teaching that organize the fundamental ways in which future practitioners are educated for their new

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professions."¹ For example, The Council on Social Work Education (CSWE) identifies field education as the signature pedagogy for social work. Through this type of teaching and learning, "students must demonstrate knowledge, application, and integration of classroom learning while also explicitly enacting the competencies within practice."² Librarians can expand upon this learning by connecting information literacy concepts and skills with important knowledge structures within social work field education.

Reflective pedagogy is a teaching framework librarians can use to effectively integrate signature pedagogies into library instruction. According to Kathleen Blake Yancey, through the process of reflection "we seek to discover what we know, what we have learned, and what we might understand."³ Reflective pedagogy provides students a gateway to information literacy concepts and skills through the signature pedagogy of their discipline. This pedagogical approach helps librarians contextualize the skills and

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practices being taught with the larger disciplinary setting. Through scaffolded reflective prompts, librarians can design a learning environment that encourages students to explore what they are learning in their semester-long classes and identify connections to the learning taking place in the library instruction classroom.

This article explores reflective pedagogy and signature pedagogies within the context of library instruction. Reflection is identified as a pedagogical framework librarians can use to incorporate disciplinary knowledge structures, habits of mind, and threshold concepts within their teaching practices. This article provides a replicable framework

for librarians to implement reflective pedagogy and create a learning environment that helps students access their learning and make connections between disciplinary and information literacy knowledge structures. Woven throughout this article are examples grounded within the field of social work to provide tangible examples of this teaching and learning practice.

Literature Review

Educators across the disciplines look to signature pedagogies when exploring, creating, and assessing the teaching and student learning taking place within their classroom. Librarians also can look to signature pedagogies to inform their understanding of disciplinary contexts surrounding teaching and student learning as well as the content and structure of their instruction. According to Nancy L. Chick, Aeron Haynie, and Regan A. R. Gurung, when students are taught within a disciplinary lens they are able to "gradually and metacognitively recognize the different yet overlapping ways of thinking, knowing, and doing within their different courses, they begin to see a conversation among their courses, allowing them to situate themselves within that conversation and shift from one perspective to another."⁴ Signature pedagogies help create what Lauren Hays describes as "disciplinary thinkers."⁵



Discussions surrounding signature pedagogies are intertwined with threshold concepts, the central ideas and processes within a discipline. According to Jan H. F. Meyer and Ray Land, “a threshold concept can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress.”⁶ While signature pedagogies provide a framework for the teaching and learning within a classroom, they also facilitate engagement with threshold concepts. Once students grasp this fundamental concept, they can then move forward in their learning and make larger connections between knowledge structures.

Signature pedagogies are used across disciplines. For example, field education represents the signature pedagogy for social work, nursing, and teacher education.⁷ The peer-review and writing workshop, a space to give and receive criticism, is the signature pedagogy for creative writing.⁸ Agricultural studies identify experiential learning as their signature pedagogy.⁹ Additionally, the discipline of design and technology point to demonstrations as their field’s signature approach to teaching and learning.¹⁰

Examining signature pedagogies presents multiple benefits to teaching and student learning. According to Hays, “studying signature pedagogies in a discipline may improve teaching and learning because it will ask instructors to examine the habits, thoughts, and actions that students in the subject need to develop.”¹¹ Through this assessment or re-evaluation, educators, including librarians, are able to continuously explore what success means within a discipline, what that looks like in pedagogical practice, and how that informs their understanding of behavior, motivation, and practice within a discipline.¹² This is significant because the use of a signature pedagogy in curriculum design or instruction does not automatically instill disciplinary ways of thinking and practice or an understanding of threshold concepts. Rather, a signature pedagogy is a lens through which to frame course content and situate larger disciplinary concepts.

Signature pedagogies also encourage educators to continuously examine student learning and success in relation to the teaching practices they have in place. Although a signature pedagogy represents the most prevalent way of teaching within a discipline, it is not necessarily an identification of best practice. As Shulman states, signature pedagogies can “persist even when they begin to lose their utility, precisely because they are habits with few countervailing forces.”¹³ Therefore, some disciplines are redefining their signature pedagogies. For example, the study of language is shifting away from sentence-level grammar to a more communicative approach to teaching and learning.¹⁴ Additionally, simulations, rather than lectures, are becoming more present within the field of political science.¹⁵

Librarians employ many teaching strategies to support student learning in the library instruction classroom. Demonstrations, collaborating with instructors, and active learning activities are all common teaching strategies. Independent searching, one-on-one conversations with students, and modeling thought process when searching are other examples of teaching techniques librarians heavily rely upon.¹⁶ Although these represent examples of frequently used teaching practices in the library instruction classroom, they do not provide a framework librarians can use to incorporate disciplinary signature pedagogies into the library learning environment.



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with a framework for designing lesson plans that incorporate elements of disciplinary signature pedagogies and threshold concepts through reflection. According to Kara Taczack and Liane Robertson, "reflection encourages students to put what they are learning into practice while also serving as a way to set goals and move forward..."¹⁷ At its core, reflective pedagogy invites students to engage with four reflective stances while learning new skills and concepts. Throughout a class session, students may be prompted to look back on previous experience, look inward to assess where they are and what the need in their current learning context, look forward to determine how to apply new knowledge and skills, and look outward to connect knowledge and information to a larger context.¹⁸

Reflection provides students the opportunity to explore their learning process alongside skill development and articulate how these new skills and concepts can be applied to current and future settings, including disciplinary contexts.

Throughout the literature, discussions on signature pedagogies are centered on teaching and learning across disciplines. Yet there remains a lack of discussion on signature pedagogies within library instruction and the pedagogical framework librarians can use to incorporate signature pedagogies into their teaching practices. This article attempts to fill this gap and identifies reflective pedagogy as a teaching framework librarians can use to place disciplinary knowledge structures in conversation with information literacy skills and practices.

Reflective Pedagogy: A Framework for Librarians

Reflective pedagogy facilitates a learning environment that contextualizes the relevancy and application of information literacy skills to students' already existing and growing disciplinary knowledge structures. While most of the research describes reflective pedagogy within semester-long courses, the author's previous research details a reflective pedagogy framework adapted from a semester-long model and applied to the library instruction context.¹⁹ This framework includes four sections within an instruction session where librarians can incorporate reflection to facilitate learning:

- (1) the introduction of key terms pertinent to the session's learning outcomes,
- (2) short readings or quotes that foster reflective practice,
- (3) scaffolded reflective activities and questions, and
- (4) an end of class reflection.²⁰



Reflective questions that allow students to engage with multiple reflective stances are central to this teaching and learning framework. These questions create an access point for students to view new concepts and skills in relation to disciplinary application. Further, it is through scaffolded reflective questions where students can make connections between the learning taking place within the library instruction classroom and what they are learning in their semester-long classes. This article extends the reflective pedagogy framework as a teaching strategy librarians can use to incorporate signature pedagogies into their teaching practices through reflection.

Research demonstrates that this reflective pedagogy framework is an effective teaching strategy in the library instruction classroom, including the one-shot setting.²¹ The findings show that through reflective prompts students can engage with each stance as they connect previous experience to their current setting, learn new concepts and skills, develop an understanding of their learning process, and outline next steps in their research projects. Additionally, the findings demonstrate that reflective pedagogy facilitates transfer learning, “the ability to take skills learned in one context and apply them to another,” within the library instruction classroom.²² Reflective pedagogy provides librarians with a framework for lesson planning and a teaching strategy that encourages students to connect new skills and concepts with their disciplinary practices. This framework guides librarians as they introduce new concepts and create reflective questions that ask students to engage with these concepts through the lens of their disciplinary knowledge structures.

Signature Pedagogies and Student Learning in the Library Instruction Classroom

The inclusion of disciplinary teaching and learning practices within the library instruction classroom can support student learning in multiple ways, including reduced cognitive overload, greater student engagement, and more opportunities for transfer learning to occur. Library instruction is often an unfamiliar learning experience for students. Whether library instruction takes place in a library classroom, online, or in the students’ regular classroom, students expend mental energy adjusting to the new learning context before shifting focus to the content being discussed. According to cognitive load theory, when barriers to learning, such as “external factors distracting resources away from learning,” are reduced, a more effective learning environment is created.²³ Therefore, including or acknowledging signature pedagogies in the library instruction classroom has the potential to lower this cognitive overload as librarians provide instruction that incorporates recognizable learning structures and speaks to familiar concepts and practices.

As students learn new skills and concepts through these recognizable teaching and learning constructs, they are able to engage more fully with course content. When signature pedagogies are present within

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librarian teaching practices, connections between disciplinary knowledge structures and information literacy concepts and skills are clear and direct. Reflective questions that ask students to explore these connections will help students understand the relevance and applicability of information literacy concepts. The more students find library instruction content relevant, the more students are able to engage with the learning experience.

Additionally, signature pedagogies within the library instruction classroom situate course content within a disciplinary lens. This approach to library instruction not only contextualizes the relevancy of information literacy concepts and skills, but it also encourages students to explore future applications of these new skills and concepts. It is through the conceptualization of future application where transfer learning can occur. When library instruction weaves together information literacy and disciplinary concepts, students have greater opportunity to transfer knowledge and skills from one context and discipline to another. Reflective pedagogy provides librarians with a framework for incorporating these disciplinary practices within library instruction.

Putting Reflective Pedagogy & Signature Pedagogies into Practice

Examining Signature Pedagogies and Threshold Concepts

Librarians can take many approaches to learn more about the signature pedagogies of the disciplines they work with. Strategies include reviewing the disciplinary literature and professional organizations as well as collaborating with colleagues and faculty in the field. The ideas discussed throughout this section represent options and not a rigid framework for learning more about disciplinary teaching and learning practices. As librarians explore signature pedagogies, they will gain greater access to the threshold concepts within these larger teaching and learning structures. This will help librarians identify where and how to integrate signature pedagogies and disciplinary threshold concepts into the library instruction classroom.

Literature within the Scholarship of Teaching and Learning (SoTL) is full of conversations regarding signature pedagogies, student learning, effective teaching practices, and knowledge structures across the disciplines. The book *Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* includes discussions on teaching and learning practices within disciplines such as the humanities, fine arts, social sciences, natural sciences, and mathematics.²⁴ A later publication, *Exploring More Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* expands discussions on signature pedagogies to include interdisciplinary areas of study as well as professions.²⁵ These represent just a few of the many resources available on signature pedagogies and teaching practices. Librarians can also look to disciplinary professional organizations to gain insight into core principles, best practices, and codes of ethics guiding the profession, discipline, and curriculum. Throughout this process, librarians would benefit from an exploration of how signature pedagogies may be changing or adapting within their disciplines.

In addition to exploring the literature, librarians can collaborate with teaching faculty to better understand the teaching and learning practices of the disciplines they work with. These conversations will further assist librarians as they create teaching



strategies that model the structure and language of the discipline in which instruction is being taught. Further, larger discussions about pedagogy and student learning also foster engagement and partnerships between departments and the library. Faculty collaboration offers a significant contribution to library instruction curriculum design, namely observations of student learning over the course of the semester. Conversations with teaching faculty will shed light on concepts within a discipline where they have witnessed their students struggle and succeed as well as what they will need to know in their professional contexts. For example, in social work practice, knowledge of open access research is crucial and therefore a necessary component of library instruction for graduate social work students.

Through this type of exploration, librarians can identify necessary, and potentially unknown, concepts and practices as they build a lesson plan that draws connections between these disciplinary areas of focus and information literacy concepts. While these approaches to curriculum design will provide insight to certain challenges related to the teaching and learning of a threshold concept, they can also emphasize areas of focus as librarians draw connections between disciplinary and information literacy concepts and practices. Further, these strategies will also help librarians identify where and how to incorporate disciplinary knowledge structures within the library instruction classroom.

Drawing Connections Between Disciplinary & Information Literacy Concepts

The signature pedagogy of the discipline being taught provides a lens through which librarians can frame and contextualize information literacy concepts and skills. Librarians will need to identify how disciplinary and information literacy threshold concepts are in conversation with one another. This process will guide the development of learning outcomes, lesson plan structure, and the reflective questions that relate to each new concept or skill. This workflow will also enable librarians to make clear connections for their students regarding how information literacy skills and practices directly relate to their projects, research, disciplines, and professions.

An exploration of *The Framework for Information Literacy for Higher Education* is one way librarians can identify connections between disciplinary and information literacy ways of thinking and doing.²⁶ Within each frame, knowledge practices, or “the proficiencies or abilities that learners develop as a result of their comprehending a threshold concept” and dispositions, or the “tendency to act or think in a particular way” are detailed.²⁷ These frames, which can also be thought of as knowledge practices and dispositions, encompass threshold concepts within the field of information literacy and prepare librarians to make disciplinary connections to these practices.

Table 1 provides an example of connecting information literacy knowledge practices and dispositions from *The Framework for Information Literacy for Higher Education* alongside the *National Association of Social Workers (NASW) Code of Ethics: Ethical Standards*.²⁸

The signature pedagogy of the discipline being taught provides a lens through which librarians can frame and contextualize information literacy concepts and skills.



Table 1.

Connecting disciplinary and information literacy concepts and practices

NASW Code of Ethics: Ethical Standards 4. Social Workers' Ethical Responsibilities as Professionals	ACRL Framework for Information Literacy for Higher Education
<p>4.01 - Competence (b): "Social workers should critically examine and keep current with emerging knowledge relevant to social work."</p>	<p><i>Frame:</i> Searching as Strategic Exploration</p> <p><i>Knowledge Practice:</i> Learners "design and refine needs and search strategies as necessary, based on search results."</p> <p><i>Disposition:</i> Learners "understand that first attempts at searching do not always produce adequate results."</p>
<p>4.01 - Competence (b): "Social workers should routinely review the professional literature and participate in continuing education relevant to social work practice and social work ethics."</p>	<p><i>Frame:</i> Information Has Value</p> <p><i>Knowledge Practice:</i> Learners "articulate the purpose and distinguishing characteristics of copyright, fair use, open access, and the public domain."</p> <p><i>Disposition:</i> Learners "see themselves as contributors to the information marketplace rather than only consumers of it."</p>
<p>4.08 - Acknowledging Credit (b) "Social workers should honestly acknowledge the work of and the contributions made by others."</p>	<p><i>Frame:</i> Scholarship as Conversation</p> <p><i>Knowledge Practice:</i> Learners "cite the contributing work of others in their own information production."</p> <p><i>Disposition:</i> Learners "seek out conversations taking place in their research area."</p>



This document not only informs social work practice but also teaching and learning within the academic field of social work. This table represents one approach for drawing connections between disciplinary and information literacy concepts and practices. This process will influence the creation of class learning outcomes, course content, and reflective questions.

Lesson Planning & Creating Reflective Questions

Reflective pedagogy is most effective when the class session is organized into meaningful segments of information. The process of drawing connections between disciplinary and information literacy concepts and practices provides librarians with a roadmap for this type of lesson planning, including the identification of learning outcomes, organization of relevant and meaningful instructional content, and reflective questions that follow. There are additional factors that will also influence which segments of information are included in the lesson, such as the level of students being taught (undergraduate or graduate students), larger course learning objectives, class assignments, and whether or not the session being taught is a one-shot instruction session or a multi-session series.

The reflective pedagogy framework described throughout this article will help librarians as they identify how to present concepts and skills within each segment of the lesson plan. For example, the inclusion of key terms and short readings can introduce overlap and connections between disciplinary and information literacy concepts and practices. These terms and readings can be paired with reflective learning activities such as think, pair, shares; collaborative brainstorming sessions; gallery walks; short writing reflections; or small-group and full-classroom discussions. This introductory component of the lesson plan helps students situate themselves in the library instruction classroom and provides familiar teaching and learning structures that contextualize the session, therefore reducing cognitive overload.

At the center reflective pedagogy is the design of scaffolded reflective questions that align with each component of the lesson plan, which students can complete as an in-class worksheet. Whether print or electronic, these classroom instruments guide students through each new piece of the lesson and facilitate student engagement with each reflective prompt. These reflective questions ask students to articulate what they are learning, how new concepts and skills apply to their current disciplinary knowledge structures, and how they envision this information being helpful in future disciplinary settings. These questions can be written in a way that incorporates the signature pedagogy of the discipline, for example, using disciplinary language and examples.

As mentioned earlier, field education has been identified as the signature pedagogy of social work. As detailed in Table 1, there are sections within their code of ethics that overlap with ACRL's Framework. Therefore, librarians teaching within this frame can emphasize application of skills and knowledge to the fieldwork setting and make connections to the NASW Code of Ethics. Reflective questions can ask students to unpack how information literacy skills and practices inform or relate to fieldwork assignments, projects, or experiences. These questions can also ask students to explore how these skills and concepts will prepare them to effectively follow their profession's code of ethics. For example:



- (1) What journals had the most relevant information related to your fieldwork setting or area of research?
- (2) Were any of these journals open access? If not, what steps can you take to identify open access journals in the future?
- (3) How does today's session inform your practice within the social work profession?
- (4) How will the topics discussed inform your field work experience?
- (5) Are there topics discussed today that you need to explore further, and if so, what?

Reflective questions such as these facilitate classroom activities and discussions, which create opportunities for deeper learning structures to develop. It is important for librarians to keep in mind that the signature pedagogy should help guide them as they develop learning outcomes, identify segments of information, and develop reflective questions, rather than dominate the design and teaching of the instruction session.

Assessing Teaching and Student Learning

Reflective pedagogy provides insight to both the teaching and student learning taking place within the library instruction classroom. Reflective questions allow students to engage with the concepts and skills discussed throughout the library instruction session

Reflective questions allow students to engage with the concepts and skills discussed throughout the library instruction session while facilitating an exploration of how these concepts and skills connect with or pertain to their disciplinary knowledge structures.

while facilitating an exploration of how these concepts and skills connect with or pertain to their disciplinary knowledge structures. For example, students might be asked how to apply this new knowledge to a current or upcoming assignment or incorporate new concepts and skills into the knowledge structures or research practices of their disciplines. As students progress through each segment of the lesson plan and the reflective questions that follow, librarians can check in with them, either individually

or as a small group. Research shows that one-on-one discussions with a librarian during instruction sessions is highly valued by students.²⁹ These discussions, inspired and facilitated by reflective questions, create opportunity for larger classroom discussions on concepts, skills, and areas of confusion. These moments provide great insight into student learning and create opportunities for the librarian to pivot, adapt, and revisit topics within the lesson plan to ensure greater understanding of information literacy concepts and their connections to disciplinary knowledge structures.

In-class worksheets also provide students a place to document and assess their learning throughout the session as well as the connections they draw to their disciplinary practices. End of class reflective questions can ask students to identify where they are in their research process, what they need to move forward, and how what they learned informs their disciplinary practice. These types of reflective questions encourage students



to outline their learning process, enabling them to map out their next steps for when they return to their assignment or disciplinary research contexts. It's therefore necessary that students have access to their worksheets so they can refer back to their research plan when needed. Librarians will want to explore tools for electronic worksheet creation, such as Qualtrics, that can be designed to provide students with continued access to their work.

Limitations & Future Directions

A significant challenge unique to the library instruction environment is incorporating signature pedagogies into a class that includes students with many different majors. For example, a freshman composition course or a general education curriculum requirement will have students familiar with multiple signature pedagogies. This setting includes students familiar with many different teaching and learning practices, all of which emphasize different threshold concepts. Librarians can utilize the reflective pedagogy framework discussed throughout this article to encourage students to make connections between the content being discussed and each student's unique disciplinary context. Additionally, worksheets can be written in a way that ask students to think more broadly about how library instruction content relates to their major, class, or assignment. Rather than provide specific examples of disciplinary contexts, librarians can use reflective pedagogy to encourage general exploration of overlap and connections between multi-disciplinary concepts and skills.

Time is another limitation. The framework proposed in this article includes multiple steps, including researching signature pedagogies and threshold concepts. Many librarians liaise with multiple departments, each with their own teaching and learning practices, and this process can easily become a daunting and overwhelming endeavor. Additionally, given that the one-shot is the most frequent form of library instruction, librarians may only have 50 or 75 minutes to draw connections between information literacy content and students' disciplinary practices. Librarians interested in implementing signature pedagogies into their teaching can begin this process with just one class and focus on one component of a disciplinary practice. Lessons learned can transfer to other classes or instruction sessions in similar disciplines. Librarians may also wish to work through this process in pairs or teams.

Although the research on reflective pedagogy and library instruction emphasizes the in-person classroom, librarians would benefit from future research extending to synchronous and asynchronous learning environments that incorporate signature pedagogies.³⁰ When considering the synchronous classroom, electronic worksheets that scaffold reflective questions can be shared with the class ahead of time to provide students with an outline of the session. Classroom structure can be a challenge in the synchronous classroom and worksheets provide a way for students to follow along. Further, the use of electronic worksheets will guide students through each segment of information included in class discussion while also providing space for students to engage more fully with the information through short reflective writing prompts. Reflective questions can also facilitate larger discussions. Breakout rooms in Zoom or Microsoft Teams can provide a space for students to talk through connections between information literacy and disciplinary practices.



Similarly, reflective pedagogy provides structure for asynchronous content creation grounded in disciplinary signature pedagogies as well. For example, key terms and short readings can help introduce each module while incorporating information literacy and disciplinary concepts. Short videos can help facilitate classroom discussion or activities and utilize familiar disciplinary teaching practices. Reflective questions can follow each new segment of information. These questions can encourage interaction with each module while providing space for students to apply new knowledge to current and future disciplinary contexts.

Conclusion

Reflective pedagogy is a teaching and learning framework librarians can use to incorporate signature pedagogies into their teaching practices. This pedagogical approach grounds library instruction in students' familiar teaching and learning practices. Further, this teaching framework contextualizes information literacy skills and concepts within a disciplinary lens, creating a more engaging and transformative learning experience. Reflective pedagogy creates a learning environment that encourages students to identify connections between information literacy and disciplinary practices and explore the application of new skills and practices to their growing disciplinary knowledge structures.

The framework detailed throughout this article will guide librarians as they explore the signature pedagogies of the disciplines they work with and create a learning environment that contextualizes information literacy within a disciplinary lens. Further, this framework provides structure as librarians identify meaningful components of a lesson plan, scaffold course content, and create reflective questions that ask students to engage with information literacy concepts and skills through their disciplinary knowledge structures. Academic librarians who provide instruction to undergraduate and graduate students across disciplines will benefit from an exploration of signature pedagogies as they seek to understand the teaching practices of the disciplines they work with as well as student learning in their classroom in order to create a more transformative learning experience. Additionally, librarians charged with building a program of instruction and leading teams of instruction librarians can use this framework for creating programmatic instruction grounded in student-centered learning.

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Notes

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