## Canadian Journal of Academic Librarianship Revue canadienne de bibliothéconomie universitaire



## Visions of the Possible

Towards a Signature Pedagogy for Information Literacy Instruction

Roberto Arteaga 🗈



Volume 9, 2023

Special Focus on The Place of Teaching in Academic Librarians' Work

URI: https://id.erudit.org/iderudit/1108525ar DOI: https://doi.org/10.33137/cjal-rcbu.v9.40904

Aller au sommaire du numéro

#### Éditeur(s)

Canadian Association of Professional Academic Librarians / Association Canadienne des Bibliothécaires en Enseignement Supérieur

#### **ISSN**

2369-937X (numérique)

Découvrir la revue

#### Citer cet article

Arteaga, R. (2023). Visions of the Possible: Towards a Signature Pedagogy for Information Literacy Instruction. *Canadian Journal of Academic Librarianship / Revue canadienne de bibliothéconomie universitaire*, 9, 1–12. https://doi.org/10.33137/cjal-rcbu.v9.40904

#### Résumé de l'article

Dans les bibliothèques universitaires, la formation en usage bibliothécaire prend souvent la forme d'un enseignement ponctuel et n'est que rarement lié de manière plus profonde au cursus plus large. Cet article soutiendra que si la formation en bibliothèque dans un cadre universitaire doit être perçue comme bénéfique pour l'apprentissage des étudiant.e.s, elle doit s'articuler autour d'un ensemble de valeurs et de pratiques pédagogiques spécifiques. Pour ce faire, cet article s'appuiera sur des recherches sur les pédagogies distinctives pour poursuivre le travail d'identification d'une pédagogie distinctive pour les bibliothèques universitaires impliquées dans l'enseignement de la maîtrise de l'information. Pour Lee S. Shulman, les pédagogies distinctives décrivent les pratiques d'enseignement utilisées pour former les nouvelles.aux professionnel.le.s, et elles sont essentielles pour comprendre comment une profession se développe. En participant au processus d'élaboration d'une pédagogie distinctive, les bibliothécaires universitaires seraient en mesure de s'interroger sur la nature et le but de leur pratique, ainsi que de jeter les bases pour façonner la formation initiale et continue des bibliothécaires en exercice et en développement.

© Roberto Arteaga, 2023



Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

https://apropos.erudit.org/fr/usagers/politique-dutilisation/



#### Cet article est diffusé et préservé par Érudit.

## Visions of the Possible: Towards a Signature Pedagogy for Information Literacy Instruction

## Roberto A. Arteaga

Pacific Lutheran University

#### **ABSTRACT**

In academic libraries, library instruction often takes the form of one-shot instruction and is not always deeply linked to the broader curricula. This article will argue that if library instruction in an academic setting is to be perceived as beneficial to student learning, it needs to coalesce around a set of specific values and teaching practices. To do so, this article will build on scholarship about signature pedagogies to continue the work of identifying a signature pedagogy for academic libraries engaged in information literacy instruction. To Lee S. Shulman, signature pedagogies outline the teaching practices used to educate new professionals, and they are essential to understanding how a profession develops. By participating in the process of developing a signature pedagogy, academic librarians would be able to engage in questions about the nature and purpose of their work, as well as set a foundation for how practicing and developing library professionals are educated and continue to be educated.

 $\textit{Keywords:}\ librarian\ education\ \cdot\ library\ instruction\ \cdot\ professional\ development\ \cdot\ signature\ pedagogy$ 

#### RÉSUMÉ

Dans les bibliothèques universitaires, la formation en usage bibliothécaire prend souvent la forme d'un enseignement ponctuel et n'est que rarement lié de manière plus profonde au cursus plus large. Cet article soutiendra que si la formation en bibliothèque dans un cadre universitaire doit être perçue comme bénéfique pour l'apprentissage des étudiant.e.s, elle doit s'articuler autour d'un ensemble de valeurs et de pratiques pédagogiques spécifiques. Pour ce faire, cet article s'appuiera sur des recherches sur les pédagogies distinctives pour poursuivre le travail d'identification d'une pédagogie distinctive pour les bibliothèques universitaires impliquées dans l'enseignement de la maîtrise de l'information. Pour Lee S. Shulman, les pédagogies distinctives décrivent les pratiques d'enseignement utilisées pour former les nouvelles.aux professionnel.le.s, et elles sont essentielles pour comprendre comment une profession se développe. En participant au processus d'élaboration d'une pédagogie distinctive, les bibliothécaires universitaires seraient en mesure de s'interroger sur

la nature et le but de leur pratique, ainsi que de jeter les bases pour façonner la formation initiale et continue des bibliothécaires en exercice et en développement.

 ${\it Mots-cl\'es}$ : développement professionnel · formation bibliothécaire · formation en bibliothèque · pédagogie distinctive

HE roles and responsibilities of academic instruction librarians vary from one context to another, contributing to different (mis)understandings about how and why they carry out their work and how effectively information literacy instruction contributes to student learning. Library instruction, for example, is "often viewed as a service provided for the benefit of faculty rather than as an academic program similar to others on campus" and "viewed as a quick lesson to be inserted into a syllabus or a class period" (Moeller 2020, 237). Furthermore, as Cook (2022) explains in a meta-analysis of the effectiveness of one-shot instruction, library instruction has some short-term positive impact on student learning, but its long-term impact is inconclusive given their sample (745–46). With these (mis)understandings in mind, this article will argue that library practices regarding information literacy (IL) instruction in an academic setting—if instruction is to be perceived as beneficial to student learning need to coalesce around a set of specific pedagogical values. To some extent, some of these values are already embodied in documents like the Framework for Information Literacy for Higher Education (Framework hereafter) or in teaching practices like the one-shot model of instruction. However, the values that underlie these aspects of the work of academic librarians are not common across the work of practicing librarians and the LIS curricula that educate new library workers. Without this common ground, the work of academic libraries and the work of academic librarians will continue to be misunderstood and undervalued.

By engaging in this discussion, I call back to Pawley's (2003) argument that instead of trying to decide what information literacy is or is not, librarians need to be "debating the issues of what, fundamentally, [they] are trying to do when [they] engage in information literacy practices" (445). This type of debate, as Pawley explained, will require that we draw from scholarship beyond LIS, ask questions about the nature, place, and consequences of library work, and recognize the role that social and historical power relations have had on the field, both inwardly and outwardly (445). As such, this article will draw from scholarship related to signature pedagogies.

The concept of signature pedagogies is best associated with the work of educational psychologist Lee S. Shulman (1986; 2005a; 2005b). To Shulman (2005b), signature pedagogies are the "types of teaching that organize the fundamental ways in which future practitioners are educated for their new professions" (52), and they are

essential to understanding how a profession develops. Writing about law schools and the case dialogue method, for example, Shulman (2005a) explains how legal education transitioned from a lecture-based model to a model where students analyze and defend their explanations with one another. This transition aligned legal education to legal practice and developed a new mode of thinking for how new professionals are educated (20–21). Within LIS, scholarship on signature pedagogies is limited, but can be best explored through the work of Hays (2019) and Chick (2019a; 2019b), whose work is situated around the Scholarship of Teaching and Learning (SoTL). This article will build on the work of these two scholars and move the needle forward by continuing the work of exploring the benefits and purpose of a signature pedagogy for academic librarians doing IL instruction. Furthermore, this article will stand in tandem with Moeller and Arteaga's (2019) previous work. They previously sought to rethink how academic librarians, at an individual level, could better situate and define their contributions to student learning. They proposed that teaching librarians will "need to reshape library instruction through a critical analysis of [their] practice" (66) and cautioned that this change may require foregoing some of the professional practices from the past and those currently in practice (70). Through this abandonment, they argued, teaching librarians would be better suited to address issues of student learning while at the same time be able to outline their teaching practice.

## The Current State of Pedagogy in Information Literacy Instruction

To meet the information needs of their students, academic librarians have focused their teaching around information literacy and have adapted their teaching approaches as those needs changed. Due to the constant change necessitated by technological advances, developing a successful IL program requires "overcoming structural, institutional, and entirely human difficulties" in order to create meaningful learning experiences for students while creating opportunities for exploration, inquiry, and creation (Fister 2017, 69). To achieve their learning and teaching goals, librarians have often relied on documents developed by ALA and its divisions and round tables. Two well-known documents are the Information Literacy Competency Standards for Higher Education (Standards hereafter) (American Library Association 2000) and the Framework (American Library Association 2015). The former was introduced in the early 1990s and presented a linear, skillbased, and politically neutral understanding of the research process (Seale 2010, 222); the latter—introduced in 2015 as a successor to the Standards—presented a shift in the roles that students, teaching faculty, and librarians play in a "changing higher education environment" (American Library Association 2015). During the time the Standards were used and since the time the Framework was adopted, the

teaching choices and pedagogy of teaching librarians have not changed significantly.¹ Generally, academic librarians teach as part of an instruction program run by the library or as part of a general education program. In these programs, a large portion of the instruction happens through sessions that take place usually one time per semester, though sometimes more, and under the assumption that these sessions will be enough to satisfy the immediate information needs of students. These assumptions themselves differ depending on the lens used to examine them, leading to different outcomes. Through an academic librarian lens, these sessions are seen as the one chance they'll have with students to talk about the research process. Through an external lens—most commonly applied by the instructor collaborating with a librarian—one-shots serve as a way for students to gain exposure to a service that will be useful for them at some point in their academic career.

While some institutions and programs have been able to build on and move beyond the one-shot approach by identifying strategic partnerships with several campus partners (Bowles-Terry et al. 2017; Ralston 2020; Behler and Waltz 2022), the majority of academic librarians continue to rely on single sessions to fulfill their educational missions and plans. Pedagogically, this method of teaching is not often successful in the long run as it assumes that librarians will encounter students at several points in their academic careers. In reality, the interactions that students have with a librarian are more sporadic than programmatic since the temporal nature of one-shots only allows for superficial integration into a curriculum (Nicholson 2016). Because of this, part of the work of an academic librarian requires convincing colleagues, both inside and outside the library, of the value of IL instruction. However, that process is one that may take many years as academic partnerships and relationships are built on successes that are sometimes hard to find (Pho et al. 2022, 734).

While such relational work may always be part of library labour, I propose that academic librarians will have more success if we first engage in inward-looking work. Before trying to convince our academic partners of what we are able to do in their classrooms, academic librarians need to coalesce and find common ground in relation to their work, their purpose, their pedagogies, and their future. To do so, we have to talk about why we teach, what we teach, and how we inculcate new professionals. In other words, we need to create a stronger, more cohesive, professional foundation that clearly articulates what we value as a profession.

I. See C&RL September 2022, 83(5), special issue on one-shots, for a more nuanced discussion of this topic.

## Developing a Signature Pedagogy for Library Instruction

Due to their prevalence, it may already be possible to argue that one-shot instruction or critical approaches to teaching information literacy are the signature pedagogy of academic librarianship. However, these practices are not taught or required in all LIS curricula, nor are they practiced by all academic librarians in the same way (Downey 2016, 66–70). In order for academic librarianship to effectively contribute to efforts regarding student learning, the field needs a signature pedagogy that clearly articulates what library instruction does and why. According to Shulman (2005b), a signature pedagogy has three dimensions:

- a surface structure that consists of the concrete, operational acts of teaching and learning;
- 2. a deep structure that outlines the set of assumptions about how best to impart a body of knowledge; and
- 3. an implicit structure which is the moral dimension that comprises a set of beliefs about professional attitudes, values, and dispositions (55).

When using these dimensions as a guide, there are traces of a signature pedagogy in librarianship. ALA's Core Values (American Library Association 2006) or CFLA-FCAB's Code of Ethics (Canadian Federation of Library Associations 2019) serve as a stand-in for the implicit structure as they outline the general attitudes and values of the profession. The deep and surface structures can similarly be traced in the guiding documents of each of the divisions and round tables of ALA, many of which have developed mission statements and guidelines for how best to carry out their work, continue to educate their members, and impart library knowledge. Yet even with all of these indicators, it is essential to point out that it would be next to impossible to develop one signature pedagogy for all of librarianship considering that the work of every librarian differs across functions but also across contexts and locations. Identifying a signature pedagogy for each type of library will require that librarians reflect on how they help others become information literate, what the teaching methods are that help facilitate this transformation, and how best to bridge the gap between what librarians do and what their communities need to do (Hays 2019, 5).

Narrowing down the focus to only academic libraries within the context of IL instruction, I believe the process of defining a signature pedagogy is much more attainable. As mentioned earlier, librarianship already has an implicit structure in ALA's Core Values or CFLA-FCAB's Code of Ethics. For example, ALA's Core Values of "Education and Lifelong Learning" and "Social Responsibility" speak to the ways that instruction librarians might contribute to the "ameliorating or solving [of] the critical problems of society" (American Library Association 2006) through their work in the classroom. Similarly, CFLA-FCAB's statement about "Responsibilities towards individuals and society" in the Code of Ethics presents a starting point

from which academic librarians can "help and support users in their information searching" (Canadian Federation of Library Associations 2019). Furthermore, academic librarians already have the beginnings of a deep structure by way of the Framework. Through the Framework, teaching librarians already have a set of concepts that outline, at a broader level, the ways in which learners engage with information both as "consumers and creators of information." The Framework also provides pathways for academic librarians "to connect information literacy with student success initiatives" (American Library Association 2015). More specifically, the knowledge practices and dispositions from each frame are the closest the field has—and will continue to have—to approximate assumptions about how to impart a body of knowledge, since they signal librarians to look for them and they direct learners to achieve these markers within their own institutional contexts. However, when viewed from this perspective, as Chick (2019a) warns, the Framework should not be used as a guide for turning students into librarians, but instead for developing them into "information-literate learners" (43).

The last step of this process, which would outline "the concrete, operational acts of teaching and learning" (Shulman 2005b, 55) for academic librarians and which also spans the training of new professionals, will require a larger effort. A recontextualization of library work, as it pertains to academic librarians, would entail a reimagining of the what, the how, and the why of teaching, and reach as far as the education of new professionals. This recontextualization would ultimately address what librarians do when they engage in IL practices and, according to Pawley (2003), ask questions like "What is information literacy and for who is it for? In what social and institutional circumstances does it take place? What consequences does information literacy have for the distribution of social and cultural goods in society as a whole?" (445). Such conception of IL would align library work with a vision of information literacy that "...[extends] the arc of learning throughout students' academic careers and [converges] with other academic and social learning goals..." (American Library Association 2015). Ultimately, these changes would mean the formation of a theory of learning for librarianship—one that addressed the challenges facing the profession, the benefits of teaching IL, and the challenges that come along with past, current, and emergent technologies and power structures. And as a result, librarians would be able to arrive at a signature pedagogy that would "organize the fundamental ways in which future practitioners are educated for their professions" and communicate to those outside the profession about the personalities, dispositions, and cultures of the field (Shulman 2005b, 52).

According to Shulman (2005a), "Professional education is about developing pedagogies to link ideas, practices, and values under conditions of inherent

uncertainty that necessitate not only judgment in order to act, but also cognizance of the consequences of one's actions" (19). The Framework, and its attempts to present IL as something that goes beyond just locating information, started a paradigm shift in the way academic librarians perceive themselves and the work they do. No longer could academic librarians hide behind the prescriptive nature of the Standards (Drabinski and Sitar 2016, 58). They must now also confront their role in the information seeking process as they select materials for their collections, as they select materials to use in their classes, and as they advocate for a more inquiry-based research process. Because without engaging in this process, academic librarians will not have "the ability to define the 'why' of [their] practices" as they try to advocate for new ways of teaching in their institutions (Schachter 2020, 136).

# A Potential Path: Intentionally Aligning the LIS Curriculum to Library Practice

Workforce preparation is a conversation that often happens both in formal and informal circles (Julien, Gross, and Latham 2018; Noe 2022), which clearly indicates that the experiences of new library professionals isn't consistent and may not always be preparing them for the work they'll be doing. While this discussion is beyond the scope of this article, a signature pedagogy would not be possible without engaging in a wide-ranged transformation of the LIS curriculum that takes into consideration how IL is taught in library classrooms. Despite this possibility, as Hays (2019) explains, it may be that "Signature pedagogies in librarianship may not have a direct relationship with those pedagogies used to teach information literacy" (8). Hays (2019) and Chick (2019a) centre their work and call for more research in SoTL as a means to understand what happens in the library classroom, and use that to understand what library professionals should be trained for. Yet as Hays (2019) explains, signature pedagogies developed first in the professions and were later adapted into disciplines. Because of this, and especially when concerning disciplines that cross disciplines, like librarianship, there has to be particular attention to how a signature pedagogy is developed (5). However, just as Chick (2019a) indicated, Hays (2019) also cautions that the development of a signature pedagogy should not be geared toward creating more librarians, but instead focus on "teaching how to think about information" because both skills and concepts are needed for learning to occur (8).

If academic librarianship takes up the task of cementing a signature pedagogy, the profession must not forget professional development beyond the LIS classroom. Just as a signature pedagogy can provide a path for how to educate and inculcate new library professionals, it can also provide a path for how to continue to educate the existing practitioners. While ALA, its divisions, and other library groups and organizations continue to engage and provide professional development

opportunities for library practitioners, the fact remains that there is not a continuous thread through these opportunities. This is a gap that could be filled by library schools, Schachter (2020, 138) suggests, as they provide professional development that closes the gaps that the literature highlights in relation to library pedagogy and critical librarianship (Downey 2016; Tewell 2018).

According to Elmborg (2006), "The education of librarians needs to prepare them to help others negotiate [their educational journey], which they cannot do until they have learned to negotiate it themselves" (198). This is why a signature pedagogy that reaches as far back as professional education would benefit librarianship in deciding not just how best to develop and foster new professionals but also in deciding what's important for them. "When we ask this question of alignment between the knowledge, skills, and dispositions we want to develop in our students and the pedagogy we currently use," Ciccone (2012) states, "we ask perhaps the most crucial question we can ask as academic professionals." In doing so, we also lay out a research agenda "for teaching and learning in the field that is grounded in what we value for our students" (xiii). From this starting point, I believe, academic librarianship can begin to reform itself so as to set and engage an agenda that more intentionally lives out its core values.

## Concluding Thoughts: A Signature Pedagogy is Not the End Goal

I began this exploration with a callback to Pawley's challenge for librarianship to become more critical of itself and its practices. Through the formation of a signature pedagogy, I argue, academic librarianship would be taking part in this critical transformation as the development of such practice would require engagement with the social and cultural context that has often been absent from library discussions. Plus, by participating in this process, academic librarianship would be able to more effectively contextualize the learning it wants to foster and which has "prevented an analysis of how individual students in specific contexts and communities encounter information generally and the library specifically" (Elmborg 2006, 193). By establishing a signature pedagogy that clearly outlines their pedagogical values, then, academic librarians can begin to accurately situate themselves as active participants in an information ecosystem that requires work from everyone, not just those whom we claim to be lacking a dose of information literacy (Santamaria and Schomberg 2022).

What I'm suggesting here is by no means easy and, to some extent, theorizing is the easy way out. However, if we do not take the time, effort, and energy to reconcile our ideals, values, pedagogies, and practices, the work of IL instruction will continue

to be misunderstood and undervalued. To this end, librarians must abandon narratives regarding workforce preparation that have so often been attached to the Standards and IL rhetoric, and instead make social responsibility the core of library work by looking back on the work of John Dewey and his call to engage in education for democracy; or, as Fister (2017) puts, it: "it is time to reflect in concrete ways on how these learning experiences [i.e. IL instruction] prepare our students for a fulfilling life as citizens in a troubled world" (76). In doing so, academic librarians would be able to engage in questions about the nature and purpose of their work, as well as set a foundation for how practicing and developing library professionals are educated and continue to be educated. In addition to developing a shared understanding of what library work entails, ideally around social responsibility, academic librarianship also needs to develop a shared understanding of what teaching and learning look like in academic contexts. This means that librarians need to move away from conversations about what 'good teaching' looks like, and into conversations that take into consideration how learners learn. Because as Lave (1996) explains, "if we intend to be thorough, and we presume teaching has some impact on learners, then such research would include the effects of teaching on teachers as learners as well" (158). After all, if what we teach does not match how we teach, our work will continue to be misunderstood and continue to short-change those we work with.

Whether academic librarians engage in this process at the personal, institutional, or profession-level, they will need to engage in questions such as:

- What is the purpose and place of IL instruction within their particular context?
- What past and current practices are keeping IL instruction from achieving its educational mission?
- How can academic librarians best embody their professional values in their work? Or, are professional values in alignment with their work?
- What must students know to help them navigate their different worlds and contexts?
- How can academic librarians engage in library instruction in a way that is sustainable for them as humans living in that same world?

The answers to these questions, or even the conversations that arise from them, will be essential to understanding how the profession has developed and what it needs to do to remain relevant. Ultimately, academic librarians must keep in mind that developing a signature pedagogy is not the end goal. Signature pedagogies need repair and "must also adapt to changes in the conditions of work and in society and to evolving norms of practice" (Shulman 2005a, 23). Doing this work purposefully sets up academic library work as socially- and culturally-informed work, placing

the responsibility not just on others but on librarians ourselves. Furthermore, it highlights tensions and controversies in the field so that we are in a better position to frame our priorities and emerging professional trends (Ciccone 2012, xi). For if we want to promote change, we must first foster change within our own ranks. The inability to do so, however, will keep us from doing the work that we currently claim to be doing.

#### ABOUT THE AUTHOR

Roberto A. Arteaga is an Assistant Professor & Instruction and Reference Librarian at Pacific Lutheran University.

#### REFERENCES

- American Library Association. 2000. "ACRL Standards: Information Literacy Competency Standards for Higher Education." *College & Research Libraries News* 61 (3): 207–15. https://doi.org/10.5860/crln.61.3.207
- ——.. 2006. "Core Values of Librarianship." https://www.ala.org/advocacy/advocacy/intfreedom/corevalues
- ———. 2015. "Framework for Information Literacy for Higher Education." https://www.ala.org/acrl/standards/ilframework
- Behler, Anne, and Rebecca Miller Waltz. 2022. "Stepping Back from the Line: How We Stopped Teaching and Built a Stronger Program." Paper presented at LOEX Conference, May 5-8 2020. https://commons.emich.edu/loexconf2020/21
- Bowles-Terry, Melissa, John C. Watts, Pat Hawthorne, and Patricia Iannuzzi. 2017. "Collaborating with Teaching Faculty on Transparent Assignment Design." In *Creative Instructional Design: Practical Applications for Librarians*, edited by Brandon K. West, Kimberly D. Hoffman, and Michelle Costello, 291–311. Chicago, IL: ACRL.
- Canadian Federation of Library Associations. 2019. "Code of Ethics." https://cfla-fcab.ca/en/guidelines-and-position-papers/attachment/code-of-ethics/
- Chick, Nancy L. 2019a. "The Crossroads of SoTL and Signature Pedagogies." In *Building Teaching and Learning Communities: Creating Shared Meaning and Purpose*, edited by Craig Gibson and Sharon Mader, 41–49. Chicago, IL: ACRL.
- ——. 2019b. "Theory and the Scholarship of Teaching and Learning: Inquiry and Practice with Intention." In *The Grounded Instruction Librarian: Participating in the Scholarship of Teaching and Learning*, edited by Melissa Mallon, Lauren Hays, Cara Bradley, Rhonda Huisman, and Jackie Belanger, 55–64. Chicago, IL: ACRL.
- Ciccone, Anthony A. 2012. "Foreword." In Exploring More Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind, edited by Nancy L. Chick, Aeron Haynie, and Regan A. R. Gurung, ix–xiii. Sterling, VA: Stylus Pub.
- Cook, Dani Brecher. 2022. "Is the Library One-Shot Effective? A Meta-Analytic Study." College & Research Libraries 83 (5): 739–50. https://doi.org/10.5860/crl.83.5.739
- Downey, Annie. 2016. Critical Information Literacy: Foundations, Inspiration, and Ideas. Sacramento, CA: Library Juice Press.

- Drabinski, Emily, and Meghan Sitar. 2016. "What Standards Do and What They Don't." In *Critical Library Pedagogy Handbook* (Vol. 1), edited by Nicole Pagowsky and Kelly McElroy, 53–64. Chicago, IL: ACRL.
- Elmborg, James. 2006. "Critical Information Literacy: Implications for Instructional Practice." *The Journal of Academic Librarianship* 32 (2): 192–99. https://doi.org/10.1016/j.acalib.2005.12.004
- Fister, Barbara. 2017. "The Warp and Weft of Information Literacy: Changing Contexts, Enduring Challenges." *Journal of Information Literacy*. 1, no. 1. https://doi.org/10.11645/11.1.2183.
- Hays, Lauren. 2019. "Examining Information Literacy Instruction through Signature Pedagogies and Pedagogical Content Knowledge." In *The Grounded Instruction Librarian: Participating in the Scholarship of Teaching and Learning*, edited by Melissa Mallon, Lauren Hays, Cara Bradley, Rhonda Huisman, and Jackie Belanger, 3–16. Chicago, IL: ACRL.
- Julien, Heidi, Melissa Gross, and Don Latham. 2018. "Survey of Information Literacy Instructional Practices in U.S. Academic Libraries." *College & Research Libraries* 79 (2): 179–199. https://doi.org/10.5860/crl.79.2.179
- Lave, Jean. 1996. "Teaching, as Learning, in Practice." Mind, Culture, and Activity 3 (3): 149–64. https://doi.org/10.1207/s15327884mca0303\_2
- Moeller, Christine M. 2020. "Insert Instruction Here: The Impact of the Service Model on Authentic Teaching." In *Deconstructing Service in Libraries: Intersections of Identities and Expectations*, edited by Veronica Arellano Douglas and Joanna Gadsby, 237–53. Sacramento, CA: Litwin Books.
- Moeller, Christine M., and Roberto A. Arteaga. 2019. "Visions of the Possible: A Critical Pedagogical Praxis for Information Literacy Instruction." In The Grounded Instruction Librarian: Participating in the Scholarship of Teaching and Learning, edited by Melissa Mallon, Lauren Hays, Cara Bradley, Rhonda Huisman, and Jackie Belanger, 65–75. Chicago, IL: ACRL.
- Nicholson, Karen P. 2016. "'Taking Back' Information Literacy: Time and the One-Shot in the Neoliberal University." In *Critical Library Pedagogy Handbook* (Vol. 1), edited by N. Pagowsky and K. McElroy, 25–39. Chicago: ACRL.
- Noe, Matthew (@NoetheMatt). 2022. "We're discussing how much teaching academic librarians do in my course this week. Students are pointing out that we don't really offer any courses that teach people how to do that in LIS (at least in this program). Did your MLS include a course (or courses) on teaching?" Twitter, August 14, 2022, 12:30 p.m. https://twitter.com/NoetheMatt/status/1570087497656573952
- Pawley, Christine. 2003. "Information Literacy: A Contradictory Coupling." *The Library Quarterly* (Chicago) 73 (4): 422–52. https://doi.org/10.1086/603440
- Pho, Annie, Salma Abumeeiz, Kristina Vela Bisbee, Nisha Mody, Renee Romero, Wynn Tranfield, and Doug Worsham. 2022. "You Only Get One Shot: Critically Exploring and Reimagining the One-Shot Instruction Model." College & Research Libraries 83 (5): 726–38. https://doi.org/10.5860/crl.83.5.726
- Ralston, Sarah M. 2020. "A First-Year Seminar with Information Literacy at Its Center." In *Engaging Students through Campus Libraries: High-Impact Learning Models*, edited by Gayle Schaub and Hazel McClure, 1–14. Santa Barbara, CA: Libraries Unlimited.
- Santamaria, Michele, and Jessica Schomberg. 2022. "It Doesn't Matter How Many 'Doses': One-Shots Aren't Cures." College & Research Libraries 83 (5): 851–53. https://doi.org/10.5860/crl.83.5.851
- Schachter, Deborah. 2020. "Theory into Practice: Challenges and Implications for Information Literacy Teaching." IFLA Journal 46 (2): 133–42. https://doi.org/10.1177/0340035219886600
- Seale, Maura. 2010. "Information Literacy Standards and the Politics of Knowledge Production: Using User-Generated Content to Incorporate Critical Pedagogy." In *Critical Library Instruction: Theories and Methods*, edited by Maria T. Accardi, Emily Drabinski, and Alana Kumbier, 221–35. Duluth, MN: Library Juice Press.
- Shulman, Lee S. 1986. "Those Who Understand: Knowledge Growth in Teaching." *Educational Researcher* 15 (2): 4–14. https://doi.org/10.2307/1175860

——. 2005a. "Pedagogies of Uncertainty." <i>Liberal Education</i> 91 (2): 18–25.	
——. 2005b. "Signature Pedagogies in the Professions." Daedalus 134 (3): 52–59	

Tewell, Eamon C. 2018. "The Practice and Promise of Critical Information Literacy: Academic Librarians' Involvement in Critical Library Instruction." College & Research Libraries 79 (I): IO-34. https://doi.org/I0.5860/crl.79.I.IO