



### *Research Article*

#### **Back to Normal? Perspectives of Faculty and Teaching Librarians on Information Literacy Instruction After the Lockdowns**

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## Abstract

**Objective** – While LIS scholars have extensively studied the widespread disruptions to library instruction during the lockdown period of the COVID-19 pandemic, there is a relative dearth of research concerning the longer-term implications for teaching information literacy (IL). This exploratory survey sought to examine how faculty have introduced IL skills to students before, during, and after the COVID-19 lockdowns. After returning to in-person operations in 2021, the authors observed a change in how faculty have engaged with libraries to teach IL to their students.

**Methods** – Utilizing parallel survey instruments, we asked faculty and librarians for their perceptions of current and past practices with scheduling library IL sessions, evaluating student research skills and considering how they acquired those skills.

**Results** – Although responses showed an unsurprising decrease in library instruction requests during the pandemic lockdowns, faculty respondents noted a return to nearly pre-pandemic norms after the resumption of in-person operations. Teaching modality and use of research assignments did not appear to impact faculty IL scheduling behaviors, but differences in faculty and librarian responses highlighted potential disagreements about the impact of COVID-19 on faculty use of library instruction. Additional questioning indicates a disconnect between how faculty perceive student research skills and their reasons for scheduling library instruction, which suggests misperceptions of librarian expertise and differences in understanding how librarians should teach information literacy. Open-ended responses provided additional context to these issues, while identifying potential barriers and opportunities.

**Conclusion** – Overall, our findings indicate that, rather than fundamentally altering faculty approaches to information literacy, the COVID-19 disruptions revealed and exacerbated endemic problems with the prevalent one-shot model of library instruction.

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## Introduction

Instruction librarians are often in a complex and unique situation as teachers. Their teaching schedules emerge dynamically throughout an academic term, they often navigate their content and pedagogy with another teacher (the instructor of record for a class), and they usually have no students and no classroom until they are invited as guests. This is not the experience of most other teachers in higher education. As Yousefi sums up,

We are told and trained to build relationships, to advocate, to try and get a seat at this and that table just to do the job we were hired to do. No physicist, historian, or geographer on our campuses teaches that way. No physicist, historian, or geographer who is responsible for teaching physics, history, or geography is going around begging people for the opportunity to do their job. (2022, p. 18)

Since faculty and course instructors (hereafter referred to as faculty) mediate access to students and the classroom, they can help or hinder the fulfillment of the responsibilities of many teaching librarians. For this reason, librarian-faculty relationships have been an ongoing area of interest in both research and practice.

As such, circumstances outside the librarians' control - like the COVID-19 pandemic - could have an impact on their information literacy instruction (hereafter ILI) scheduling and practice. With the large upheaval that pandemic closures had on universities and the inevitable impact on faculty classrooms, teaching librarians also found their work disrupted. The authors of this study primarily sought to investigate whether, since the return from pandemic lockdowns, there had been a shift in how faculty teach research and information literacy, while also exploring how these potential changes intersect with the perceptions of librarians.

The COVID-19 pandemic created extreme conditions that exposed the large crack in many academic libraries' information literacy foundations. This should hardly be surprising since widespread crises like pandemics have historically revealed underlying social inequities (Sayed et al., 2021). Our findings confirm what others have observed before us, that information literacy teaching is incredibly varied on our campuses and lacks a structural home in the curriculum. As such, the one-shot model of ILI is distinctly vulnerable to disruptive events like COVID-19, which should prompt librarians and administrators to focus more of their efforts on promoting the curricular integration of information literacy at their institutions.

## **Literature Review**

The teaching of information literacy is a collaborative endeavor, with librarians and disciplinary faculty each playing a role. However, the small number of teaching librarians at most institutions, relative to the number of instructors, significantly limits the reach of subject/liaison librarians into course-integrated teaching (Taylor, 2023), which has contributed to the continued invisibility of information literacy teaching among faculty (Badke, 2011; Hardesty, 1995). Furthermore, librarians frequently perceive that their work is misunderstood by faculty and administrators due to a combination of widespread vocational ambiguity and institutional cultures that devalue librarianship (Becksford, 2022; Goodwin & Afzal, 2023; McCartin & Wright-Mair, 2022; Polger, 2024). Because librarians are not structurally embedded in the curriculum at most colleges and universities, teaching ILI requires librarians to navigate these common misperceptions and cultivate direct interpersonal relationships with faculty, which usually revolves around librarians proving their own competence to gain the trust of faculty (Baer, 2024). Building productive relationships with faculty requires librarians to invest considerable time and energy, and the underlying expectations often discourage librarians from innovating their teaching practices (Galoozis, 2019), which can limit their professional development. The pressure to cultivate these relationships leads many librarians to engage in "deference behaviors," ceding power and authority to faculty, which can further undermine the perception of librarian expertise and status as faculty peers (McCartin & Wright-Mair, 2022).

Academic librarianship has undergone a period of rapid transformation since the early 2000s, driven largely by the digitization of information resources and the shift from bibliographic instruction to ILI (Baer, 2021; Polger, 2024). Corresponding to this vocational realignment is the trend of librarians increasingly self-identifying as teachers (Antonesca, 2007; Baer, 2024; Gill & Springall, 2021). Notably, the librarian's teaching identity is not universal and tends to strongly correlate with professional experience (Baer, 2021; Nichols Hess, 2020; Polger, 2024). However, while librarians tend to strongly identify as

teachers, they overwhelmingly believe that faculty do not perceive librarians as teachers (Becksford, 2022; Polger, 2024). According to librarians, most faculty view them as database demonstrators (Baer, 2021, 2024; Becksford, 2022) or IT support clerks (Polger, 2024) rather than teachers. This is a particularly important distinction, as faculty perceptions of librarian expertise- or lack thereof- may influence their decisions regarding research assignments and ILI in their courses.

Several investigations have attempted to gain a better picture of how disciplinary faculty perceive and teach information literacy, as well as their perceptions of their students' skills. Leckie and Fullerton (1999) and McGuinness (2006) found that some faculty teach information literacy themselves, and it is also the case that faculty see their information literacy teaching as integrated with their disciplinary teaching and difficult to tease apart (Cope & Sanabria, 2014; Dawes, 2019). Moran (2019) found that faculty in certain disciplines (English/Composition, Literature) saw teaching information literacy as their disciplinary responsibility, whereas other disciplines were less inclined to see ILI in this way. Kuglitsch (2015) advocates for an integrated approach that recognizes the "generalizable nature of information literacy" (p. 457) as well as a situated lens for information literacy (i.e. disciplinary), arguing that this creates the potential for greater transfer of information literacy learning between different contexts. We have learned that faculty value the information literacy development of their students, but more than half of faculty think students lack research skills (Blankstein, 2022; Bury, 2011, 2016; Cope & Sanabria, 2014; Saunders, 2012; Weetman DaCosta, 2010). Weetman DaCosta (2010) reported that faculty considered students weakest in information evaluation and comparison while Bury (2016) found that searching and critically questioning sources were areas of weakness. Moran (2019) revealed faculty perceived student weaknesses in citation, synthesizing information and using library databases.

There is a notable dearth of studies investigating librarian perceptions of student information literacy skills, but the most prevalent theme throughout the extant literature suggests that librarians share mixed views of student IL competencies. Latham et al. (2024) investigated lower division community college student IL skills and found a widespread sense of student overconfidence, poor understanding of the research process, difficulty with basic research concepts and synthesizing information, and related deficits associated with the digital divide and underdeveloped reading comprehension skills. In their study of upper division students, Squibb and Zanzucchi (2020) observed that students value databases and other library resources but experience similar difficulties with effectively using them and adequately understanding scholarly sources. Furthermore, these students tend to adopt an instrumentalized approach to IL driven by perceived faculty expectations and assignment needs rather than intellectual curiosity. Conversely, Nierenberg et al. (2024) studied a cohort of students over three years and found that IL skills increased considerably over time within the same population. Given the increasing diversity of student populations signified by geographic, cultural, economic, and other characteristics, it is understandably difficult to draw specific conclusions about faculty and librarian perceptions of student IL skills.

Some evidence points to faculty valuing librarian expertise, and their role in helping students achieve greater success (Stonebraker & LeMire, 2023), while other evidence suggests librarian work is often devalued, with faculty holding the power (i.e., the final say on assignment design) (Becker et al., 2022), even after librarians have done the work of making their "intellectual contributions" apparent (Sloniowski, 2016, p. 660).

Many faculty integrate ILI into their teaching – either by themselves or in collaboration with librarians – but lack time/skills to effectively do so, while some see less need (Bury, 2011, 2016; Gruber, 2018; Kim et al., 2023; Moran, 2019). Some studies point to the different library and research terminology used by

faculty, librarians, and library users, which could have an impact on how students learn about these concepts (Kupersmith, 2012; McDonald & Trujillo, 2024; O'Neill & LeBlanc, 2023).

Information literacy is “intertwined” with courses, but faculty are divided on whether it is an important learning outcome (Cope & Sanabria, 2014; Cox et al., 2023; Dawes, 2019). There is agreement that students learn information literacy over time through coursework and assignments, but faculty say it is dependent on their personal motivation (Dawes, 2019; McGuinness, 2006). Surprisingly, while faculty are concerned about misinformation and disinformation on social media, they see this as less of an issue within their disciplines. The majority of faculty do not work with a librarian on this issue (Saunders, 2022).

Unsurprisingly, many academic libraries saw a significant decrease in overall library instruction sessions during the COVID-19 pandemic, in addition to an increase in virtual instruction as a modality (Taylor, 2023). During the initial switch to remote learning, many librarians felt like an “afterthought” as overwhelmed faculty members rushed to transition their courses, and assignments were changed to omit the research component in favor of summative assessment (Bury, 2024). The pandemic also highlighted the impact that “lifeload” has on student engagement and learning. Lifeload is the big picture of a student’s life, with all pressures, not just learning pressures, taken into consideration. In an Australian study, researchers found that students “overwhelmingly suggested they know how they learn best, but they do not choose to learn that way. This is due to their prioritisation of lifeload over learning load,” (Hews et al., 2022).

This study was designed in response to the disruption of the COVID-19 pandemic, emergency switch to remote instruction, and the “new normal” of instruction practices. While the pandemic and associated lockdowns caused a global disruption of education at all levels, ILI’s structurally precarious nature and dependence on interpersonal relationships render it distinctly vulnerable, which highlights the importance of this study and others like it for multiple reasons. First, there continues to be a heterogeneity in the way in which information literacy is perceived and taught by faculty; second, information literacy teaching occupies an informal space in the curriculum (it remains part of the hidden curriculum); and third, the low numbers of librarians relative to faculty result in diminished capacity for librarians to reach students directly.

## Aims

The present study seeks to explore the perceptions of both disciplinary faculty and librarians across the five year period around the COVID-19 pandemic (2018-2023) in the following areas: current and past practices for teaching research skills (including library instruction and research assignments); their perceptions of students’ skills; and their perceptions and practices with regards to faculty-librarian collaborations. Explicitly, we are guided by the following three research questions:

1. *Have faculty changed the way they teach research-based components of their courses and if so, how?*
2. *How do the faculty perceptions of their students’ skills influence the ways they are formulating their courses around research content?*
3. *How are faculty teaching their students information literacy and how are they collaborating with the library to do so?*

## Methods

The research team was composed of four faculty librarians from two peer institutions in New Jersey: Montclair State University and William Paterson University. Each member has extensive experience teaching information literacy.

This study used a similar approach to Moran (2019), which surveyed both faculty and librarians in their exploration of perspectives about information literacy. Using two parallel, exploratory questionnaires—one for faculty and the other for academic teaching librarians—this research instead sought to better understand the enduring effects of the pandemic on faculty engagement with the library and how they were teaching IL to their students. Both survey instruments were created in Qualtrics and focused on the following broad areas of questioning: changes to teaching modality, changes in the scheduling of library instruction, perceptions of student research skills, and changes in the utilization of research assignments. This study received IRB approval from both institutions.

A purposive sample of 608 faculty who had requested library instruction between the fall 2018 and spring 2023 semesters was drawn from the home institutions of the research team—two four-year public universities in New Jersey. Considering the small number of librarians at the research team's respective institutions, the librarian survey was sent to 143 librarians from all eleven four-year public universities in New Jersey to create a more robust population for this study. Private and two-year colleges were eliminated to try to keep the population comparable. Recipients of the librarian survey were collected from institutional website directories and included all individuals who were explicitly identified as librarians or archivists, while omitting directors, deans, and other administrators from the survey population.

Recipient email addresses were used to generate unique survey links through Qualtrics, and each survey was shared by email in early February 2024, followed by two reminders. No identifiable information was collected, including IP Addresses.

Of the 608 recipients of the faculty survey, there were 54 respondents who consisted primarily of full-time faculty (62.9%; tenured or tenure-track), with lesser representation by adjunct faculty, non-tenure track teaching professionals, instructional specialists, staff, or administrators. One respondent chose not to answer this question. The librarian survey was sent to 143 individual emails, from which 26 completed surveys were received from respondents at eight out of eleven institutions. The relatively small number of responses may reflect how individual librarians identify as instructors, with those who teach infrequently or not at all opting not to respond. Each survey contained a combination of open and closed-ended questions, and therefore both qualitative and quantitative methods were used to analyze response data. Multi-part Likert and multiple-choice questions were used to identify patterns between responses, while open-ended questions were designed to better understand these quantitative results. For the multi-part Likert scale questions, these percentages were compared over three time periods: *Pre-COVID* (2018 to March 2020), *Pandemic* (March 2020 through Summer 2021), and *Post-Lockdown* (Fall Semester 2021 to December 2023). Incomplete multi-part questions were omitted from analysis, and results were then compared across each time period.

All the open-ended questions were hand-coded by the research team using principles of applied thematic coding (Guest et al., 2012). Three members of the research team independently reviewed the data to identify themes. After individual analysis was completed, a preliminary codebook was developed, and each data point was reviewed consensus on the corresponding codes. Following this process, the

codebook was revised, updated, and finalized collectively, and the codes were then grouped into overarching themes.

### **Results: Quantitative Data**

Both the faculty and the librarian surveys were distributed concurrently in February 2024 and prompted respondents to reflect on the survey questions (see appendix) across the three time periods to help explain the impact of pandemic disruptions. While our analysis primarily focused on the responses of faculty members at two institutions, librarian responses provide additional context to this discussion and denote areas where the perspectives of each group align and diverge.

#### ***Perceptions of Student Research Skills***

When asked to reflect on the impact of COVID-19 on students, respondents to both surveys noted a decrease in student research skills overall. Nearly forty-five percent of faculty (n=49) and fifty-five percent of librarians (n=18) reported that students had weaker research skills than they did prior to the pandemic. Of the remaining responses, only a small number of faculty (6.1%) felt that student skills had become stronger. All other responses to both surveys indicated that respondents had either not noticed a change or that they were unsure.

Respondents were also asked to identify research skills where they felt students needed improvement. Skills were selected from a predefined list of ten common information literacy concepts, and respondents were allowed to select multiple options, including an *Other* category (as shown in Figure 1). Both faculty (n=50) and librarians (n=19) identified the same priority areas, although in different orders: *Searching*, *Citing*, *Source Evaluation*, *Literature Review*, using *Specialized Sources*, and *Keyword Development*. Of those choosing *Other*, faculty also noted AI literacy and time management, while librarians identified student reluctance to do library research following COVID-19, a reliance on Google searches, and the need for better critical reading skills.

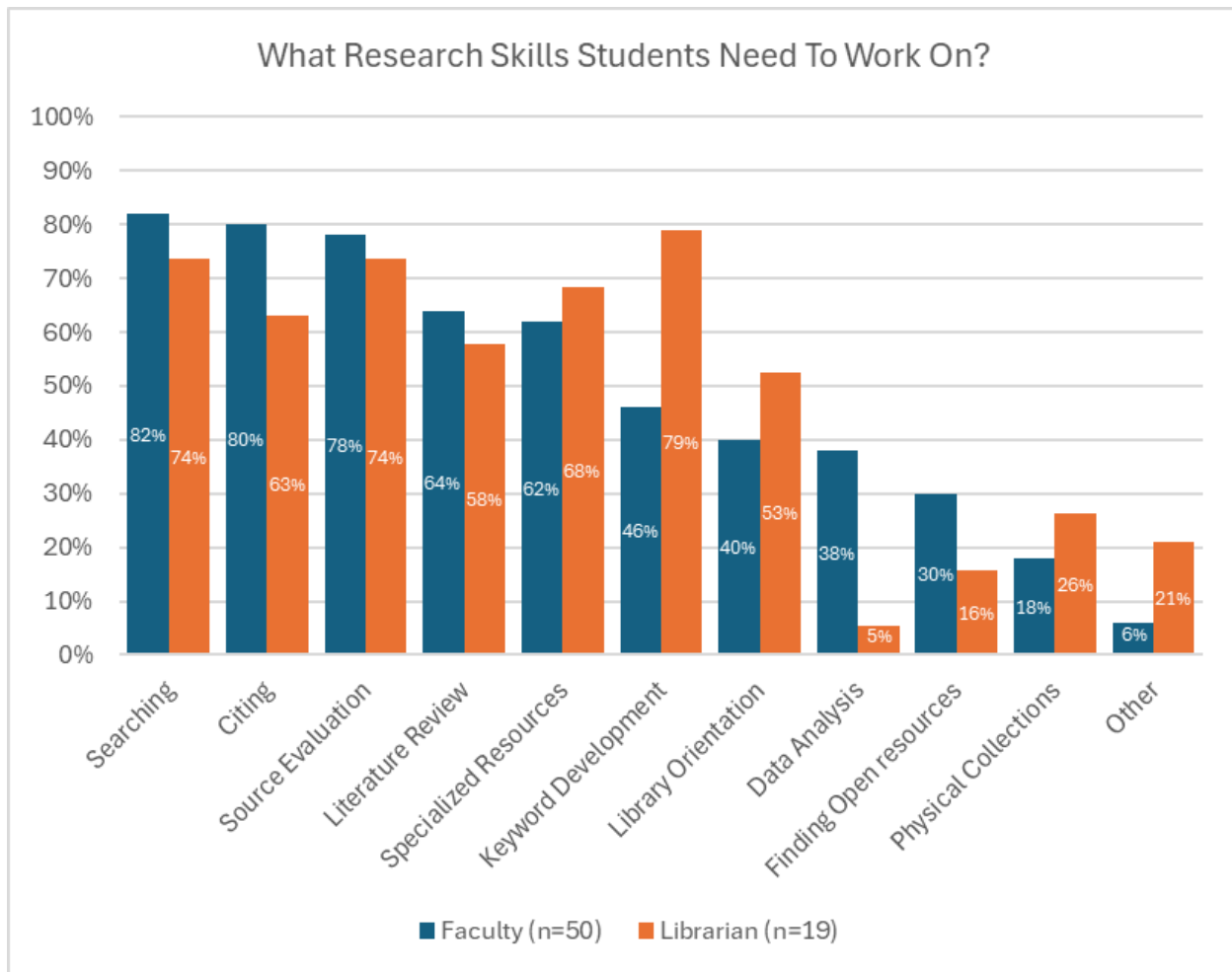
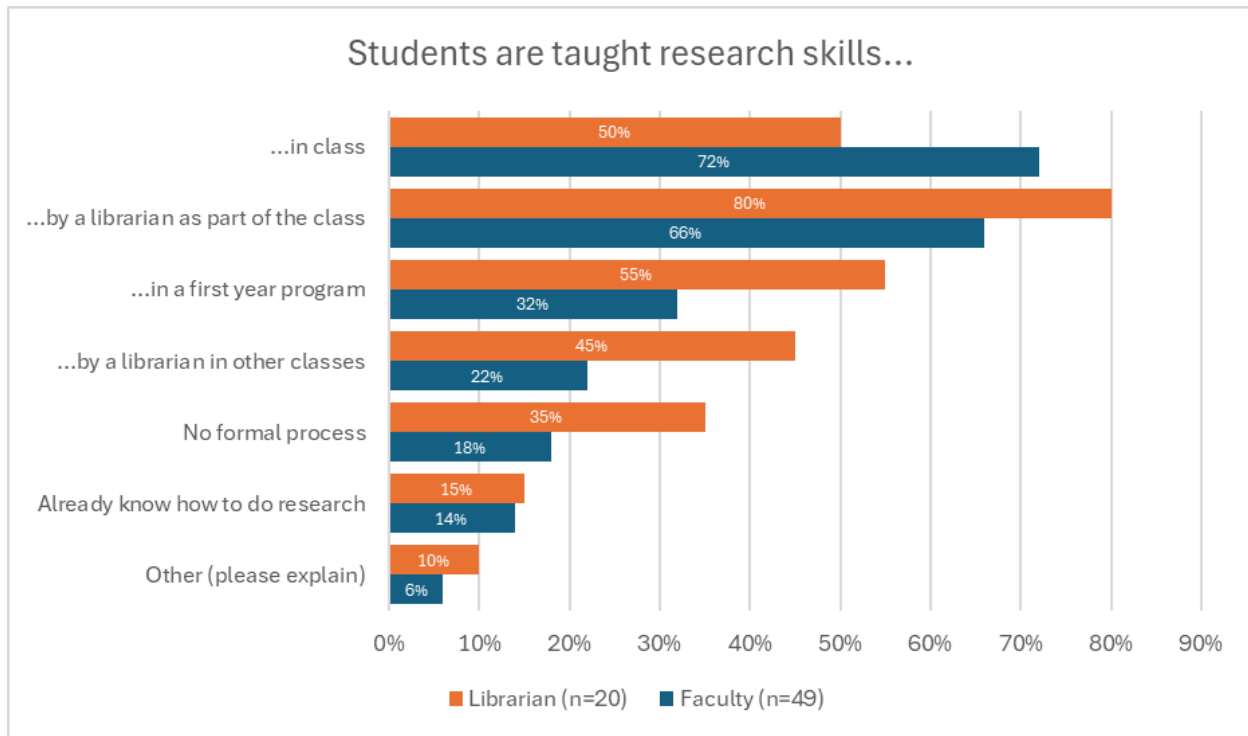


Figure 1  
Areas where student research skills can be improved.

Additionally, respondents were asked to indicate where and how they believed students learn the research skills necessary to complete assignments, based on a list of six supplied options (as shown in Figure 2). The question allowed for multiple selections, and included an *Other* category for additional responses. Both faculty (n=49) and librarians (n=20) perceived that students were either taught research skills as part of class or through partnership with a librarian, although with differing levels of importance. These differences are likely related to the different roles that each plays, with faculty ranking the in-class research skills training highest (72%) and librarians rating librarian-lead instruction (80%) as the primary mechanism for acquiring these skills.





**Figure 2**  
When, where and how student research skills are taught.

Other responses suggested that students learn research skills elsewhere, as part of first-year programming, by librarians in other classes, or that students already possess the necessary research skills. Faculty also noted other ways that students acquire these skills, including co-curricular research opportunities, standalone modules, or that they teach research skills themselves. Alternately, one librarian respondent noted that while faculty often teach basic skills, librarians are better suited for more advanced research.

Notable among both surveys is the number of faculty (18%) and librarians (35%) who indicated that they were unaware of any formal process through which students learn research skills. It should also be stressed that the interpretation of some of the available options may be ambiguous to some readers. For instance, respondents who indicated that students who already know how to do research may believe that this teaching took place in first-year programming or another class.

### *Changes in Frequency of Library Instruction*

Respondents were asked to reflect on ILI scheduling during the three predefined time periods to determine possible changes in frequency following COVID-19 lockdowns. Faculty respondents (n=43) reported on the frequency of library instruction as a part of their courses during each of the three defined periods. Reflecting prior to the pandemic, nearly half (48.8%) reported that fewer than half of their courses incorporated librarian-led instruction, while a relatively small number (14%) indicated that library instruction was not part of any course. All other responses (37.2%) reported that library instruction was incorporated into at least half of their courses.

During the Pandemic period, responses reflected a shift away from library instruction requests, with nearly forty percent (39.5%) indicating that none of their courses included ILI sessions. These responses were drawn primarily from those who previously reported that fewer than half of courses incorporated information literacy instruction. Across all three periods, responses indicating that library instruction was included in at least half of courses remained relatively consistent. Notably, Post-Lockdown results were nearly identical to pre-COVID percentages. While responses to this question reflect little change between the two periods overall, a clarifying, multiple-choice question provides a more nuanced picture. Both faculty and librarians were asked to reflect on how ILI scheduling had changed since the onset of COVID-19. Faculty reported on their own scheduling practices, while librarians indicated observed changes in scheduling by faculty.

The same faculty respondents from the previous question (n=43) indicated that 53.5% scheduled roughly the same number of sessions, while 30.2% reported requesting fewer or no sessions compared to the pre-COVID period. A small number of respondents (16.3%) also noted that they scheduled more sessions following the Pandemic period. This shows a more pronounced decrease than the previous question and supports the researchers' observations of a reduction in scheduling patterns caused by COVID-19.

Providing additional support, librarian respondents (n=19) observed a more pronounced decrease in ILI requests, with 47.4% reporting that faculty scheduled fewer sessions Post-Lockdown, with the remaining noting roughly the same number as pre-COVID (52.6%). Results of the librarian survey cannot be directly compared to those of the faculty survey, but present a general perception of decreased use of library instruction following the Pandemic.

### *Influence of Instructional Modality and Research-Based Assignments*

In exploring the reasons for noted changes in the scheduling of library instruction, two possible factors were identified: changes to faculty teaching modalities and faculty use of research-based assignments.

Changes to instructional modalities showed an expected shift from in-person to online instruction following the onset of COVID-19. In reflecting on the three time periods, faculty respondents (n=45) indicated that the majority (82.2%) had taught either primarily or exclusively in-person prior to the pandemic, at which point most academic institutions moved to online instruction. During the Pandemic period, most respondents (64.4%) reported a shift to either mostly or entirely online instruction, and the number of responses reporting an equal amount of in-person and online teaching more than doubled (26.7%). There was a slight shift back to in-person instruction during the Post-Lockdown period, although most respondents (77.9%) indicated that teaching was a combination of in-person and online. Librarian survey results (n=22) mirrored those of the faculty, reflecting a sharp shift from in-person to online library instruction during the Pandemic, followed by a more centered combination of these modalities, Post-Lockdown.

These results present a shift to a more hybrid teaching modality which may have had some impact on the perceived reduction in ILI session requests by the researchers.

Respondents were also asked to reflect on the average use of research-based assignments in their courses, to identify possible changes over time that might contribute to reduced ILI scheduling. Faculty responses (n=46) showed little variation across the three defined periods. While the majority indicated that research requirements were included in most or all classes throughout all three surveyed periods, there was a slight decline between pre-COVID (67.4%) and Post-Lockdown (60.9%). Few respondents indicated that

none of their courses involved research-based assignments prior to (2.2%) or during (6.5%) the Pandemic period, and this number dropped to zero following the return to in-person operations.

Librarians (n=19) responded to a similar question, with most respondents (84.2%) noting that at least half of instruction requests included research-based assignments prior to the Pandemic period. This number decreased slightly during the Pandemic period (73.7%), but returned to nearly pre-COVID numbers (79.0%) during the Post-Lockdown period.

Results of this question do not seem to indicate a connection between the use of research assignments and the perceived reduction in ILI session requests.

### ***Reasons for Scheduling Library Instruction***

Respondents indicated the reasons for requesting library instruction for courses, selecting from a predefined list of ten common information literacy concepts (as shown in Figure 3). The question allowed for multiple selections and included an *Other* category for additional information. Both faculty and librarians identified the same five reasons for scheduling as *Searching*, *Specialized Resources*, *Literature Review*, *Citing*, and *Library Orientation*---although ranking them differently. Faculty respondents who chose *Other* noted the specific needs of graduate students, the presence of computers in the library, and specific assignments (legal and tax research), while one librarian respondent noted the role of library instruction in reducing student anxiety associated with research.

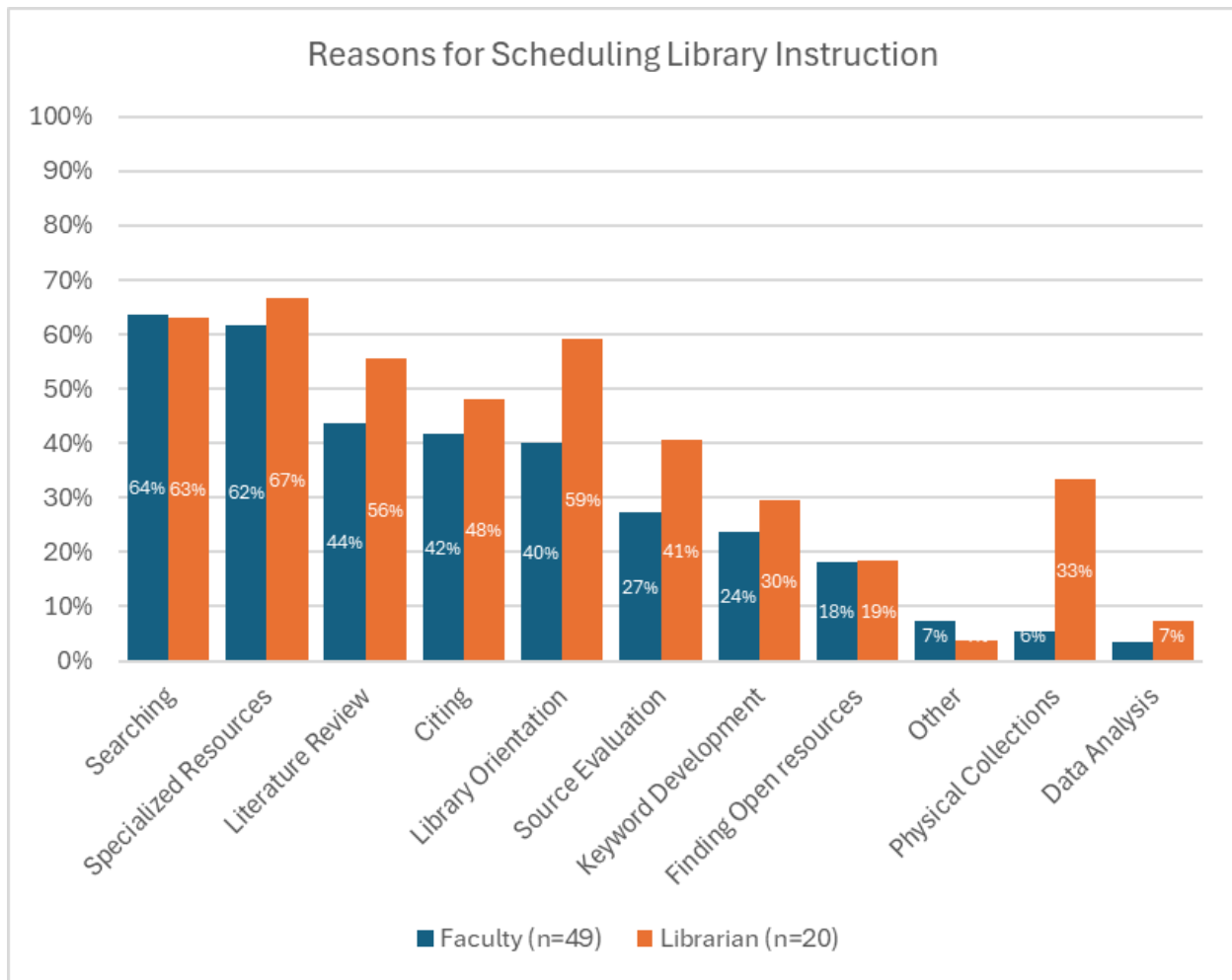


Figure 3  
Reasons for scheduling library instruction.

When compared with faculty-identified research skills where students needed improvement, the reasons for scheduling ILI followed similar priority, with some notable differences (as shown in Figure 4). Reasons for scheduling were often reported at a lower percentage than student research needs, and some skills presented large gaps between the two measures. *Citing*, *data analysis*, and *keyword development*, presented the most notable discrepancies, with lesser gaps for *searching*, *literature review*, and *keyword development*.

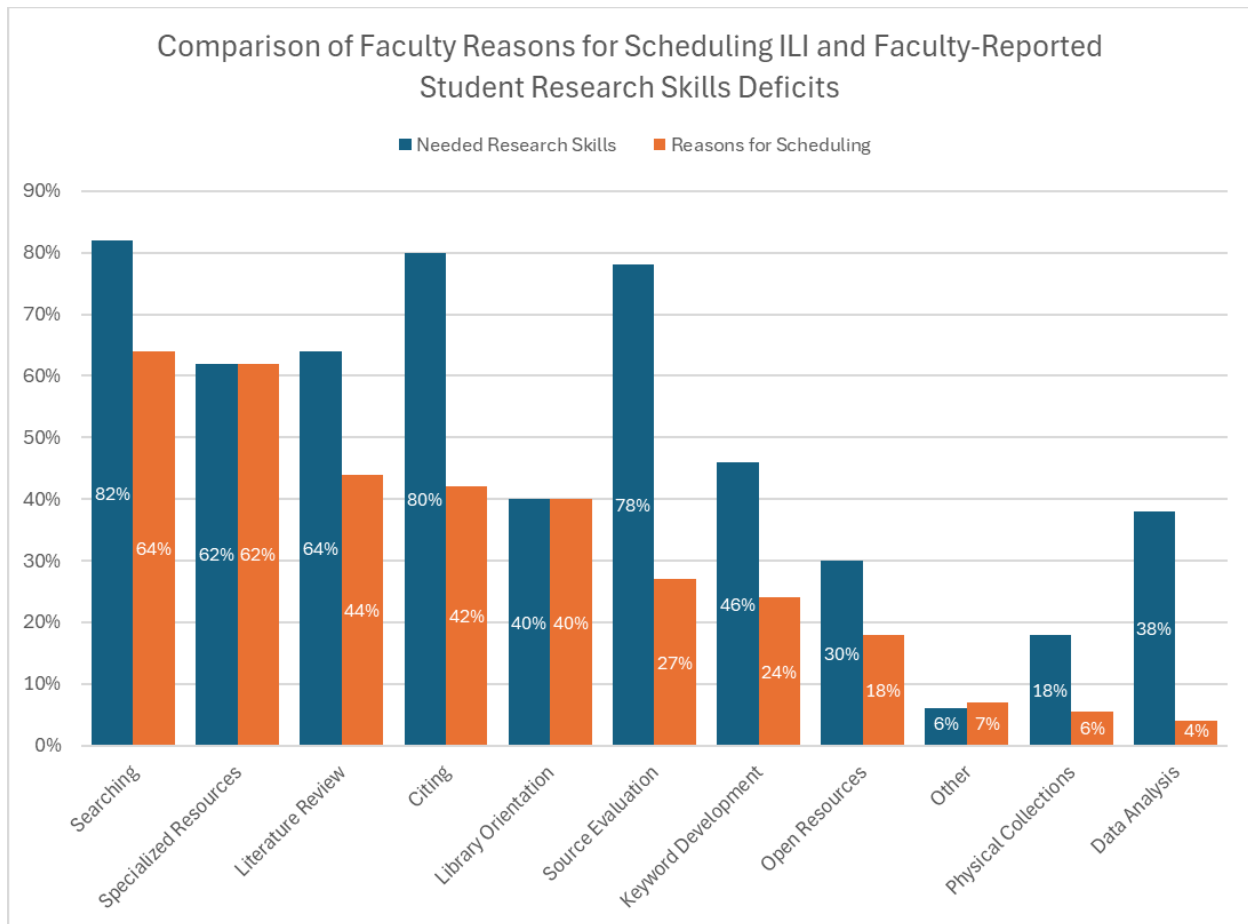


Figure 4  
Faculty-reported reasons for scheduling ILI and student research skills deficits.

### Results: Qualitative Data

In the analysis of the qualitative data, three main themes were found: disruptors and responses, perceptions of students and their needs, and perceptions of librarian work.

#### *Disruptors and Responses*

In alignment with the existing literature, our results indicate a demonstrated impact on instruction requests during the lockdown period as faculty and librarians noted decreased instruction requests overall. While qualitative responses from faculty indicated that instruction requests returned to pre-COVID levels after the return to in-person operations, the disruption was felt and noted by both faculty and librarians.

Some faculty mentioned that students didn't have enough time to learn about research face to face following the shift to more virtual instruction during the pandemic. Some also commented that they themselves also struggle with not having enough time to teach all their classes and do their work, so library classes drop off their syllabus as a result. Faculty reported that changes made to teach online during the pandemic have persisted in their current teaching practices. Some acknowledged that they need to scaffold or weave in research skill instruction throughout their asynchronous courses.

When asked what the library could do differently to increase the frequency of ILI for students, some faculty said they currently use or would like to use video tutorials to teach this type of content throughout the semester (the authors infer that these videos would be used outside of class time). Such materials were described by faculty as “self-paced, mini lessons, small training modules,” which aligns with the theme of time constraint appearing in the textual comments. One respondent also wanted the library to issue a receipt when the students completed the work. While perhaps not intentional, the suggested modules would replace the in-person instruction component. This view also reflects the notion from the literature that librarians are more like IT professionals or content creators than teachers.

Librarians wrote that instructors don’t want to give up any class time for ILI, reflecting a desire for asynchronous, self-paced instruction. Like faculty, librarians also observed that the shift to online learning, compressed schedules, and larger enrollments in classes had created time constraints for faculty, leaving fewer opportunities for librarians to work directly with students in their courses.

An interesting finding was the unprompted mention of artificial intelligence—specifically generative AI—in the qualitative responses. The research team did not design the study to ask about disruptions outside of the pandemic; however, several respondents mentioned it on their own, demonstrating the seismic effect generative AI can have on information literacy in higher education. Some librarians and faculty indicated they were staunchly against using AI, while others embraced it and wanted to see librarians include more AI discussions in IL sessions. One faculty member stated, “after AI became popularized I reduced ‘research paper’ assignments due to the increase in undetected plagiarism”.

Many of the responses reflect the reality that both the pandemic and AI have had direct impacts on faculty and librarians as they wrestle with teaching information literacy and research skills to students.

### ***Perceptions of Students and Their Needs***

Faculty and librarians both reported a deficit in the perceived levels of student research skills. Some faculty commented that students did not need dedicated ILI sessions, though they would direct students to library resources and librarians when needed. Others noted that ILI should take place outside of class, with one suggesting an “open office” approach where librarians schedule optional sessions for students to attend as needed. Still others said they had lowered expectations of students since the pandemic but saw their students as needing more support from the library because of their lack of research skills.

Faculty also reported on student mental health as a factor when considering ILI for their courses. Student anxiety and lowered skill levels mean that there was little time for sessions with a librarian. One faculty member commented that “students have become a lot more anxious and require so much more hand holding that I’m finding it difficult to cover all the necessary materials,” adding that this meant that ILI was dropped from some lower level courses.

Several faculty and librarians lowered their expectations of students, with some providing more scaffold approaches to ILI or changing their pedagogy. A few faculty commented that students weren’t motivated or interested in learning research skills and put the onus on students to take advantage of library services and resources when they needed or wanted it. Librarians commented on the students’ lack of reading, research, and writing skills, and some blamed the lack of preparedness on the pandemic, especially for incoming students. One librarian noted while speculating about college-level readiness, “the pandemic left many students underprepared for research and project-based assignments. High-school teachers

during the pandemic perhaps opted not to teach the traditional research paper or process.” Another focused on the instruction itself describing how “I’ve noticed since [the] pandemic that attention spans of students have shortened dramatically. If I cannot captivate them in the first few minutes...I begin to lose them.” In response, some librarians wrote about how they changed their approach to teaching information literacy to motivate students and address the perceived skill deficit.

### ***Perceptions of Librarian Work***

The responses provided a window into how faculty generally felt about ILI. Several of the faculty responses praised librarians for the work they did and its impact on student information literacy skills, including comments praising their expertise. Some stated that due to circumstances beyond their control, including lack of time or a change in coursework, that they were not scheduling instruction as frequently as they used to. Some faculty indicated they had forgotten that ILI from a librarian was available or that “not all students need/want library instruction.” However, even with changes in coursework, some faculty noted that they are requesting more instruction sessions than they had in previous years. In addition, some of the faculty requested that the university hire *more* librarians.

While there were positive comments, some faculty did share negative experiences with library instruction, including frustration with the librarian’s teaching. Some faculty found the actual scheduling frustrating, citing the library instruction request form being problematic, as well as what was offered, requesting items such as mini-sessions. However, many of the faculty responses showed positive feelings towards the library and librarians in general.

Some of the librarian responses on this theme seem defeated, with one stating “I can only guess that [faculty] feel capable of doing information literacy instruction themselves.” Librarians had a mix of experiences about teaching online, noting both challenges and opportunities presented by the pandemic. Some noted missing the interpersonal interactions within a physical classroom while others discussed taking the time to update their skills and improve their approach to teaching.

Both faculty and librarians discussed the need for collaboration and outreach between the library and the general university community. Responses mentioned librarians visiting department meetings, sending targeted emails, and even having a required information literacy course. However, some were unsure what library instruction would entail for asynchronous courses.

### **Discussion**

This study was designed to explore perceived ILI trends and librarian/faculty perceptions of student research skills reflecting across the five year period around the COVID-19 pandemic. Some of the most notable findings are that 1) while some librarians perceive a decline in ILI requests, faculty-reported ILI scheduling behaviors have largely returned to their pre-pandemic norms; 2) both faculty and librarians perceive greater student information literacy deficits after the lockdowns; and 3) there is an apparent misalignment between how faculty perceive gaps in student IL competencies and their approaches to involving librarians in addressing these deficits. To help contextualize our findings, we now return to our initial research questions:

### ***Have Faculty Changed the Way They Teach Research-Based Components of Their Courses and if so, How?***

This overarching question was intended to broadly examine faculty behaviors regarding the scheduling of ILI. Overall, reported faculty scheduling behaviors did not change significantly from the pre-pandemic to post-lockdown periods. Following a lockdown-era decline, faculty ILI scheduling patterns mostly returned to pre-pandemic levels; data showed nearly identical numbers in the pre-COVID and post-lockdown periods. There was a significant and expected shift to fully online during the lockdown period, a trend noted by Eva (2021) and Taylor (2023). While faculty reported a return to pre-pandemic scheduling practices, a higher percentage of librarians believed that faculty are requesting fewer ILI sessions. This discrepancy between reported librarian perceptions of scheduling trends and faculty-reported scheduling behaviors could be explained by the common sentiment documented in the literature that librarians believe that faculty and administrators do not value their work (Becksford, 2022; Goodwin & Afzal, 2023; McCartin & Wright-Mair, 2022; Polger, 2024), which may lead some librarians to naturally assume the worst. Another possible explanation could be potential self-selection bias among faculty respondents, with “library champions” being more likely to respond than other faculty. Alternatively, this disconnect could also result from the asymmetrical nature of the survey instrument, as librarian responses were recorded at multiple institutions in which faculty were not surveyed.

While there wasn’t a significant change in faculty-reported scheduling habits, some responses indicated that reasons for not scheduling included time constraints, changes in course design, and other external factors. A few faculty mentioned not scheduling due to their perception of student research skill deficits and lack of overall preparedness. The fact that faculty curtailed their use of library instruction as they perceived decreasing student IL skills could indicate that they do not sufficiently value or recognize librarian expertise. In addition, many faculty talked about a shift to asynchronous information literacy instruction using videos to replace the traditional method of teaching ILI, a trend which is observed in the literature (Eva, 2021; Goosney, 2024).

### ***How Do the Faculty Perceptions of Their Students’ Skills Influence the Ways They Are Formulating Their Courses Around Research Content?***

Both faculty and librarians reported a decline in student research skills. The qualitative responses explored this in more depth as both groups reported additional factors outside of research skills, including students’ lack of motivation and preparation and, in some cases, anxiety. Faculty used phrases like “hand-holding,” indicating their feelings toward overall student well-being and preparedness for college-level research. Accordingly, librarians changed how they were teaching because students seem less prepared. Many of the librarians’ comments about student IL gaps identified a lack of preparation and/or the pandemic as the primary causes of this issue. These faculty and librarian perceptions largely align with the literature on widespread learning loss resulting from pandemic disruptions (Agarwala et al, 2022; Engzell et al, 2021). While the questions were meant to highlight how faculty think of students now (during the post-lockdown period), pre-pandemic literature also demonstrates faculty perceptions of gaps in student research skills (Blankstein, 2022; Bury, 2011, 2016; Cope & Sanabria, 2014; Saunders, 2012; Weetman DaCosta, 2010).

When asked specifically about deficits in student research skills, both faculty and librarians had similar responses regarding which skills needed the most attention - *searching*, *citing*, and *source evaluation* were mentioned frequently by both groups. However, the librarians focused on *keyword development* as a skill, which fewer faculty mentioned, possibly due to a difference of interpretation of this concept. When



faculty were asked why they scheduled ILI, there were notable discrepancies compared to their perceived student skill deficits. For instance, only 27% of respondents indicated that source evaluation as a reason for scheduling with a librarian, but 78% noted that they felt students needed improvement with this skill. An intriguing finding from this question is the disconnect between what faculty request for ILI and where they see their students struggling. If source evaluation is an area where students need more help, why is it not driving faculty to schedule more library instruction? In our survey results, faculty prioritized scheduling library instruction for searching, specialized resources, literature review, citing and library orientation before source evaluation, even though source evaluation (along with citing and searching) were noted as areas where students needed the most improvement. This finding aligns with the widely-reported perception among librarians that faculty view ILI as procedural, rather than seeing librarians as teachers with distinctive expertise (Baer, 2021; Becksford, 2022; Galoozis, 2019; Polger 2024). This is an indication that ILI's structural precarity, rather than pandemic disruptions, is leading to missed learning opportunities in some areas.

### ***How Are Faculty Teaching Their Students Information Literacy and How Are They Collaborating With the Library to do so?***

Most faculty respondents indicated research skills are taught in class, with 66% noting that they include librarians in teaching IL skills. The most common reasons identified for scheduling ILI for their courses were *searching, specialized resources, literature review, citing, and library orientation*. With the exception of *library orientation*, these responses align with IL skills that are reflected in the ACRL Framework. Librarian responses placed more emphasis on their role in teaching these skills, with 80% stating that faculty included librarians in teaching ILI. Divergent responses between faculty and librarians may have resulted from different interpretations of the questions or from innate differences in the composition of the two populations. However, it is notable that the faculty, while speaking highly of librarians, indicated that IL skills are taught "in class." While our study did not set out to study faculty misunderstandings of librarian expertise, our findings suggest that these misperceptions are impacting librarians' access to students to teach information literacy.

Some librarians discussed the shift to online as being a detriment to their overall teaching experience, indicating how they missed the in-person element and being able to interact with students. However, some librarians did use the shift to remote learning to better enhance their pedagogy and develop their teaching skills, similar to findings in Bury (2024) and Goosney (2024), the latter of whom found an increase in librarian confidence in online instruction during the lockdown period. When it came to their teaching, only 41 percent of faculty named liaison/subject librarians as very/extremely important, and they do not work regularly with librarians on their syllabi or lesson plans. However, a large majority of faculty continue to highly value the library to support teaching and student success, as reflected in Love & Blankenstein (2024).

A positive trend observed in the data is the rebound of instruction requests after the COVID-19 pandemic decline. While a small number of faculty may no longer request ILI from librarians, the responses from the two institutions showed post-lockdown numbers returning to pre-pandemic levels. Librarians may not be teaching ILI in entirely the same way, but they are still teaching regularly and can utilize this information to continue to promote instruction to their faculty peers. Asynchronous models were something requested by multiple faculty, which may be an avenue for librarians to continue exploring.

There was a disconnect where faculty perceive student research skill deficits and why they schedule ILI. Items like source evaluation showed a large gap - 78% of faculty mentioned seeing it as a student skill

deficit but only 27% requested library instruction to address it. It's possible that faculty do not understand the full range of what information literacy teaching is; instruction librarians may want to consider better communicating what an information literacy session could cover as opposed to assuming that faculty know what librarians can teach.

When asked about increasing library instruction scheduling, many of the responses included suggestions about curricular integration and collaboration with different departments; those methods could allow for librarians to become more involved in teaching those skills faculty noted as deficient. Such suggestions align with some emerging themes in the literature regarding formalizing the status of ILI in the curriculum. For example, Gibson and Massey (2024) found that the collaborative development and co-teaching of a course by a faculty-librarian team notably enhanced student learning. Similarly, librarians interviewed by Goodwin and Afzal (2023) suggested that promoting the curricular integration of ILI will likely improve student learning outcomes. Embedding IL in the curriculum could also provide librarians with more time to engage in teaching work since there should be a corresponding reduction in the amount of time spent engaging in faculty outreach.

As noted earlier, Generative AI was mentioned frequently in the open-ended comments without prompting in a study that did not ask questions about Generative AI, signaling the impact this new technology has already and will continue to have. Results demonstrate the impact that Generative AI is having in the space of scholarly conversation and information literacy. Responses from both faculty and librarians pointed to fears of plagiarism, with some stating that they had changed their assignments due to AI tools like ChatGPT. While the data from this study cannot directly support claims that plagiarism is increasing due to AI, it is possible that if faculty change or eliminate research-based assignments due to fears of Generative AI, their usage of library instruction may decrease. Therefore, this study also shows a need to explore both librarian and teaching faculty attitudes about Generative AI and how it impacts student research assignments and potentially impacts their information-seeking behavior.

### ***Limitations and Future Research***

Some notable limitations to this study will now be addressed. In higher education there are significantly fewer librarians than teaching faculty, and among the pool of eligible librarians, some may have opted out of the survey because they do not consider teaching as their primary role. Therefore, the number of respondents to the librarian survey was quite small in comparison with the faculty survey. In addition, while faculty responses were drawn from the two institutions where the research team members are employed, librarian participants were identified from eleven similar colleges and universities within the state. The inclusion of these other librarian perspectives reflects experiences from numerous institutions that may not directly align with those of the faculty respondents. Librarian responses serve to enrich those of the faculty survey, but cannot and should not provide a direct comparison. As such, the resulting data cannot be generalized because of key differences between these groups and due to the exploratory nature of this study.

While this research focused on faculty and librarian perceptions, future research should engage additional stakeholders to better understand the importance of ILI in higher education. Of note is the predominance of full-time faculty (tenured and tenure-track) respondents and the lower representation of adjunct faculty and other teaching professionals. Exploration of how the perceptions of these two groups differ may add nuance to this research. Additionally, the voices of students were not included, but are important to better understanding these issues.

Qualitative responses from the faculty survey included reflections of how faculty view librarians and their abilities as teachers. Comments were both positive—praise for the work they do—and negative—a critical recommendation for improving librarian teaching skills—and suggest additional areas of research on this topic. Further studies should explore the impact of formal teacher training and practical experience on teaching effectiveness of librarians, as relates to faculty scheduling practices.

### ***Implications***

Although the findings are not generalizable, there are notable implications for practice. Both librarians and faculty observed a decrease of instruction during the pandemic; while not unexpected, this has an impact on the number of students librarians are able to reach, particularly during disruptive periods. Librarians may want to consider looking at practices that fully embed information literacy instruction at the course or curricular level which could help to mitigate the impact of future disruptions. Also, as seen in the corresponding literature, librarians may encounter faculty who do not fully comprehend or sufficiently value ILI – or who have had a negative experience with library instruction. Librarians should therefore consider different ways of collaboration, communication, and framing their expertise to faculty. Finally, librarians should align their work to proactively address some of the most disruptive impacts arising from the proliferation of generative AI, which could include designing AI-centered lessons and educating faculty about the tangible ways in which ILI can directly address their concerns about AI and student research. We cannot assume that faculty or our institutions are aware that librarians have a role in teaching AI literacy, for example. While the connection between information literacy and AI literacy may seem obvious to librarians, it may not be to our faculty and administrators.

The “new normal” appears to closely resemble the old, and the authors contend that it is important for librarians to question whether this is a good thing. While pandemic disruptions led to some notable innovations for teaching ILI, such as flexible teaching modalities and broader demand for asynchronous content, they also exposed and amplified existing structural flaws. Now more than ever, librarian involvement with ILI appears contingent upon developing and sustaining relationships with faculty who may not understand or value their expertise. Considering the increasingly disruptive impacts of generative AI represented in both popular discourse and the results of this study, librarians should consider ways to highlight the intersection of ILI and AI in their outreach efforts moving forward. But perhaps more importantly, librarians should advocate for a more formal role for ILI at both the individual course and curricular levels to improve student IL comprehension and learning outcomes as well as demonstrate their own credibility and authority within the higher education ecosystem.

### **Conclusion**

The findings of this study show an unsurprising decrease in ILI sessions during the lockdown period of 2020-2021, followed by a substantial rebound to nearly pre-pandemic levels after the return to in-person learning. Faculty and librarian responses were largely aligned in most areas, such as perceived declines in student preparedness and research skills, but diverged somewhat in relation to post-lockdown faculty scheduling habits. Furthermore, some responses suggest a disconnect between faculty perceptions of student IL needs and their self-reported motives for scheduling library instruction, which may indicate a misunderstanding of librarian expertise and the benefits of ILI.

The disruptions caused by COVID-19 highlighted that the current, informal ways in which information literacy is situated in higher education are neither sufficient nor sustainable. While the next global pandemic is hopefully far off in the future, other disruptors—such as the recent arrival of Generative

AI—can greatly impact the work we do as librarians. Therefore, a more holistic approach to IL, reflecting some degree of curricular integration and more equitable partnerships between faculty and librarians, should be an institutional and professional goal.

### Author Contribution

All authors contributed equally to Conceptualization, Investigation, Methodology, Writing - original draft, and Writing - review & editing.

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## Appendix A

### Survey Instrument - Faculty

1. At which institution(s) are you employed? (select all that apply)

- [Institution #1]
- [Institution #2]

2. What is your primary role at your institution?

- ☐ Full-time faculty (tenured)
- ☐ Full-time faculty (tenure track)
- ☐ Adjunct faculty
- ☐ Non Tenure Track Teaching Professional (NTTP)
- ☐ Instructional Specialist
- ☐ Staff
- ☐ Administration
- ☐ Other (please explain)

3. What has been the modality of your teaching?

Prior to March 2020	From March 2020 through Summer 2021	Since the start of the Fall 2021 semester
<input type="radio"/> All Online	<input type="radio"/> All Online	<input type="radio"/> All Online
<input type="radio"/> Mostly Online	<input type="radio"/> Mostly Online	<input type="radio"/> Mostly Online
<input type="radio"/> Equally Online & In-Person	<input type="radio"/> Equally Online & In-Person	<input type="radio"/> Equally Online & In-Person
<input type="radio"/> Mostly In-Person	<input type="radio"/> Mostly In-Person	<input type="radio"/> Mostly In-Person
<input type="radio"/> All In-Person	<input type="radio"/> All In-Person	<input type="radio"/> All In-Person
<input type="radio"/> N/A	<input type="radio"/> N/A	<input type="radio"/> N/A

4. On average, how many of your courses required research-based assignments, per semester?

Prior to March 2020	From March 2020 through Summer 2021	Since the start of the Fall 2021 semester
<input type="radio"/> None	<input type="radio"/> None	<input type="radio"/> None
<input type="radio"/> Few	<input type="radio"/> Few	<input type="radio"/> Few
<input type="radio"/> Half	<input type="radio"/> Half	<input type="radio"/> Half
<input type="radio"/> Most	<input type="radio"/> Most	<input type="radio"/> Most



<input type="radio"/> All	<input type="radio"/> All	<input type="radio"/> All
<input type="radio"/> N/A	<input type="radio"/> N/A	<input type="radio"/> N/A

5. How do students learn research skills to complete assignments?

- Students already know how to do research
- Students are taught research skills in class
- Students are taught research skills by a librarian as part of the class
- Students are taught research skills by a librarian in other classes
- Students are taught research skills in a first year program
- There is not formal process for most students to learn research skills
- Other (please explain)

6. On average, how many of your courses include a scheduled library instruction lesson, per semester?

Prior to March 2020	From March 2020 through Summer 2021	Since the start of the Fall 2021 semester
<input type="radio"/> None	<input type="radio"/> None	<input type="radio"/> None
<input type="radio"/> Few	<input type="radio"/> Few	<input type="radio"/> Few
<input type="radio"/> Half	<input type="radio"/> Half	<input type="radio"/> Half
<input type="radio"/> Most	<input type="radio"/> Most	<input type="radio"/> Most
<input type="radio"/> All	<input type="radio"/> All	<input type="radio"/> All
<input type="radio"/> N/A	<input type="radio"/> N/A	<input type="radio"/> N/A

7. Why did you schedule library instruction for your course(s)? (select all that apply)

- Library Orientation
- Keyword Development
- Searching
- Specialized Resources (e.g. specific databases)
- Source Evaluation
- Citing
- Literature Review
- Physical Collections (e.g. archives or print materials)
- Data Analysis
- Finding Open Resources
- Other (please explain)

8. How did the pandemic change your approach to scheduling library instruction?
  - I schedule fewer sessions
  - I schedule roughly the same number of sessions
  - I schedule more sessions
  - I no longer schedule library instruction for my classes
9. What influenced this change in your approach to scheduling library instruction?
10. Did your approach to teaching students research skills change in any other way? Please explain.
11. Have you noticed a change in your students' research skills prior to March 2020 compared with the last two years (starting the Fall 2021 semester)?
  - Yes, they now have stronger research skills
  - Yes, they now have weaker research skills
  - No, I have not noticed a change
  - Unsure
12. In what areas do your students' research skills need improvement? (select all that apply)
  - Library Orientation
  - Keyword Development
  - Searching
  - Specialized Resources (e.g. specific databases)
  - Source Evaluation
  - Citing
  - Literature Review
  - Physical Collections (e.g. archives or print materials)
  - Data Analysis
  - Finding Open Resources
  - Other (please explain)
13. What could your institution's library offer to increase the likelihood of scheduling a library instruction lesson with a librarian?
14. Do you have any other ideas or observations to share?

## Appendix B

### Survey Instrument - Librarian

1. At which institution(s) are you employed?
2. What has been the modality of your library instruction?

Prior to March 2020	From March 2020 through Summer 2021	Since the start of the Fall 2021 semester
<input type="radio"/> All Online	<input type="radio"/> All Online	<input type="radio"/> All Online
<input type="radio"/> Mostly Online	<input type="radio"/> Mostly Online	<input type="radio"/> Mostly Online
<input type="radio"/> Equally Online & In-Person	<input type="radio"/> Equally Online & In-Person	<input type="radio"/> Equally Online & In-Person
<input type="radio"/> Mostly In-Person	<input type="radio"/> Mostly In-Person	<input type="radio"/> Mostly In-Person
<input type="radio"/> All In-Person	<input type="radio"/> All In-Person	<input type="radio"/> All In-Person
<input type="radio"/> N/A	<input type="radio"/> N/A	<input type="radio"/> N/A

3. On average, how many library instruction requests included required research-based assignments, per semester?

Prior to March 2020	From March 2020 through Summer 2021	Since the start of the Fall 2021 semester
<input type="radio"/> None	<input type="radio"/> None	<input type="radio"/> None
<input type="radio"/> Few	<input type="radio"/> Few	<input type="radio"/> Few
<input type="radio"/> Half	<input type="radio"/> Half	<input type="radio"/> Half
<input type="radio"/> Most	<input type="radio"/> Most	<input type="radio"/> Most
<input type="radio"/> All	<input type="radio"/> All	<input type="radio"/> All
<input type="radio"/> N/A	<input type="radio"/> N/A	<input type="radio"/> N/A

4. How do students learn research skills to complete assignments?
  - Students already know how to do research
  - Students are taught research skills in class
  - Students are taught research skills by a librarian as part of the class
  - Students are taught research skills by a librarian in other classes
  - Students are taught research skills in a first year program

- There is not formal process for most students to learn research skills
  - Other (please explain)
5. Why do you think faculty schedule library instruction for your course(s)? (select all that apply)
- Library Orientation
  - Keyword Development
  - Searching
  - Specialized Resources (e.g. specific databases)
  - Source Evaluation
  - Citing
  - Literature Review
  - Physical Collections (e.g. archives or print materials)
  - Data Analysis
  - Finding Open Resources
  - Other (please explain)
6. How did the pandemic change faculty's approach to scheduling library instruction?
- I schedule fewer sessions
  - I schedule roughly the same number of sessions
  - I schedule more sessions
  - I no longer schedule library instruction for my classes
7. What do you think has influenced faculty to change their approach to scheduling library instruction?
8. How has the pandemic affected how you teach library instruction? Please explain.
9. Have you noticed a change in students' research skills prior to March 2020 compared with the last two years (starting the Fall 2021 semester)?
- Yes, they now have stronger research skills
  - Yes, they now have weaker research skills
  - No, I have not noticed a change
  - Unsure
10. In what areas have you observed that students need improvement? (select all that apply)
- Library Orientation
  - Keyword Development
  - Searching
  - Specialized Resources (e.g. specific databases)
  - Source Evaluation
  - Citing
  - Literature Review
  - Physical Collections (e.g. archives or print materials)
  - Data Analysis
  - Finding Open Resources
  - Other (please explain)

11. What could your library do to increase the likelihood of scheduling a library instruction lesson with a librarian?
12. Do you have any other ideas or observations to share?