

Rediscover Needs in Teaching Visual Literacy Skills in University Classrooms

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Abstract

Visual literacy instruction is an emerging topic in higher education, yet a gap exists in how those concepts and skills are taught in classrooms. The Visual Literacy Librarian at the University of Delaware created a mixed-method needs assessment that surveyed faculty and instructors on their current awareness and experiences in teaching visual literacy skills in classrooms across disciplines. Data was collected from a campus-wide online survey and voluntary interviews. A thematic analysis demonstrated that faculty and instructors across fields had similar interests and values toward visual literacy as a critical component in teaching and learning. The variation in experiences and different levels of expertise indicated challenges in implementing visual literacy in instructions. This chapter introduces new opportunities for the library and museums to support faculty by proposing new partnerships and unique institutional supports that aim to expand the interdisciplinary effort in teaching visual literacy in faculty's educational practices and beyond.

Keywords: assessment, academic libraries, visual literacy study and teaching, opportunities, higher education

Introduction

What are the reactions of faculty members when a librarian mentions the importance of teaching visual literacy ("VL") skills in their disciplines? Whether they were already implementing VL skills in instructions, confused, or not interested in the idea, librarians are always trying to find new ways to support faculty's needs in incorporating VL concepts and skills in teaching and learning. Three barriers exist in connecting university faculty and instructors to the concept and practice of enhancing students' VL skills in classrooms. The first barrier is that all academic disciplines have no universal visual literacy definition. The conversation on visual communication started when "visual literacy" was first introduced in the 1960s (Felten, 2008). In the pre-digital era, the definition of VL emphasized the application of language for textual analysis to "reading" images, mostly from literature studies (Messaris, 2012). While Messaris defined the competencies of VL are, much like phonetic literacy, decoding, comprehension, and interpretation (1994), other research explained that there was not a unified definition for either the concept or the practices (Blummer, 2015).

The second barrier comes from academic disciplines experiencing different levels of awareness when emphasizing the VL concept in teaching and learning. When VL began to enter college classrooms, Charles Hill (2003) noted that VL has long been a part of the instruction in fields like art history and cultural studies. However, literature on visual rhetoric and VL concept in other disciplines, especially in higher education, only started emerging at the beginning of the 21st century (Felten, 2008). While the VL concept was rooted in humanities, the STEM (science, technology, engineering, and mathematics) field shows an increasing need for VL learning. In a series of articles examining various cognitive skills necessary for conceptual understanding among biochemistry students, Schönborn and Anderson (2020) stressed the need for cognitive skills that "visualiz[e] and [interpret] the myriad of external representations that communicate our science" (p. 347). They voiced for formatively developing students' VL skills and including VL development in all courses across the biochemistry curriculum. Similarly, Rybarczyk (2011) pointed out that science instructors must explore creative ways to teach VL in Biology. These directions include integrating various approaches in scientific visual representation communications and exposing students to critically engage with scientific processes that are novel to traditional science fields.

The third barrier is that faculty believe that students, as the natural inhabitant of digital and visual media, are competent in interacting with visual materials. Faculty members often assume that students born in the digital age naturally carry the ability to engage in visual culture critically, while in reality, those "digital

natives" are not adapt to visual communication (Brumberger, 2011; Williams & Barnum, 2019). Researchers found that nowadays, students are constantly immersed in visual media, but "this does not necessarily mean that students know how to find appropriate images, understand their meaning and cultural context, or integrate them into academic work" (Matsuiak et al., 2019, p. 124). Felten (2008) highlighted this problem by writing: "living in an image-rich world, however, does not mean students (or faculty and administrators) naturally possess sophisticated visual literacy skills, just as continually listening to an iPod does not teach a person to critically analyze or created music" (p. 60).

To combat the three barriers, academic librarians are exploring new strategies for promoting VL in teaching and learning, such as through one-shot sessions or embedding librarians in courses. The author was hired as the Visual Literacy Librarian at the University of Delaware ("UD") to connect VL with more on-campus learning. UD is a public land-grant research university with more than 150 majors and minors and a total enrollment of 23,613 in 2022 ("Facts & figures: University of Delaware," n.d.). At UD, the library and museum galleries reside under one organization. The Visual Literacy Librarian is a dual-supervision position that works cross-departmentally in the library's Student Success and Curriculum Partnerships department and as museum staff. This unique role supports the Visual Literacy Librarian as an interdisciplinary educator and an agent between VL and the diverse faculty across departments. As Marcum (2002) argued, such role ensures "the active role in higher education's changing landscape by mastering the tools necessary for visual knowledge, communication, and presentation, and then sharing their mastery with students and faculty" (as cited in Milbourn, 2013, p. 275). As the foundation for this role, the author aims to determine what teaching and learning support faculty and instructors at a public state-supported research institution strive for.

The field of VL research lacks needs assessment data from university faculty and instructors. The research project led to this chapter intended to identify gaps in teaching with VL at the university and develop corresponding instruction support. It also aimed to contribute qualitative data to the dynamic conversation on VL, informing the expansion of VL instructional needs from traditional fields and all disciplines on campus. The questions that the author was hoping to answer with the assessment results are.

1. What gaps may exist related to visual literacy skills taught in the University of Delaware classrooms?
2. What crucial disciplinary areas of convergence do the different levels of University of Delaware faculty and instructors' awareness of visual literacy reveal?
3. What support is needed for faculty and instructors to teach visual literacy skills more effectively, in the context of their course and discipline?

Design

The author started planning the mixed-method needs assessment project in April 2021. To identify gaps related to teaching VL skills on campus, the author decided to reach the teaching faculty and instructors with an anonymous online survey. The assessment also aimed to identify challenges and explore more ways to support the needs of faculty and instructors in teaching visual literacy skills in the context of their course and discipline. The author designed a follow-up one-on-one Zoom interview for survey participants to sign up voluntarily.

Since the goal of the assessment was to survey the entire university, the author identified the sample population as faculty and instructors from all departments (including the English Language Institute, the program that offers intensive English programs for degree-seeking students, business and legal professionals, English language teachers, and general English language learners, and the Osher Lifelong Learning Institute, a program designed for adults aged 50+ to take and teach classes together, with no grades, exams or educational prerequisites) and campus. The assessment focused on courses currently being taught. Therefore, the target sample was limited to those who taught in either Spring or Fall of 2021. With the help of the Office of Institutional Research and Effectiveness, the author obtained a randomized sample of 1037 potential participants.

The author used Qualtrics Core XM (Experience Management) platform to conduct the online survey. The reason for choosing Qualtrics was that all faculty, staff, and students are licensed to use Qualtrics as the

UD's web-based tool for safe data collection and analysis for academic, research, and administrative activities. The online survey contains three sections. The first section of the survey asked participants about their backgrounds and views on VL skills in their classrooms. Questions in this section helped us identify the characteristics of faculty and instructors who had more incentives to involve in conversations about VL concepts and skills they valued in their teaching. This section included questions such as:

- Which academic unit are you primarily affiliated (e.g., History Department, School of Education)?
- How many years have you been teaching at the University of Delaware?
- Think about classes you are currently or will be teaching this year. How important is the role of visual information in your class?
- In order to be successful in my class, students must be able to...

The last question asked participants to choose all skills they valued in their classrooms. The options for this question were based on the seven standards in *ACRL Visual Literacy Competency Standards for Higher Education* (2011) and an option for participants to write other skills with examples from their teaching experiences.

The second section contributed to survey participants' prior knowledge of VL, including experiences applying VL skills in teaching and learning and past professional development or research opportunities. The author started this section by defining VL. Based on *ACRL Visual Literacy Competency Standards for Higher Education*,

"Visual literacy is a set of abilities that enables an individual to effectively find, interpret, evaluate, use, and create images and visual media. Visual literacy skills equip a learner to understand and analyze the contextual, cultural, ethical, aesthetic, intellectual, and technical components involved in the production and use of visual materials" (2011, para. 2).

After seeing the definition, the participants identified if they had "encountered the idea of 'visual literacy' in [their] career as a professional or scholar." Participants who selected "no" or "not sure" skipped this section. Those who selected "yes" would proceed to the following short answer questions in this section:

- What does visual literacy mean or "look like" to you, from the perspective of your own discipline?
- Please provide an example of how you have helped your students practice skills related to visual literacy in your classroom, i.e., assessments, projects, or activities.

The author created norms to process responses in this section.

The final section collected information about faculty and instructors' interest in expanding knowledge in VL, such as:

- Which of the following learning opportunities do you think would be most beneficial to your teaching / your students' learning?
- Which type(s) of professional development are you interested in attending?
- How do you learn about professional development opportunities on campus?

The data from this section aimed to support the Library, Museums and Press to develop visual literacy-related workshops and programs and was considered out-of-scope for this article. Therefore, the author will not focus on discussing those results in this chapter.

Finally, all participants, whether they were involved in VL teaching or not, were invited to participate in one-on-one follow-up interviews. The author reached out to the volunteering participants and conducted a 30-minutes Zoom interview with each participant. The interviews were semi-structured, and questions directed the interviews focused on but were not limited to

- Participants' confident level of engaging visual literacy skills in teaching and learning. If confident, what experiences or support helped them to feel confident? If not, what do they think would be good support from the Library, Museums and Press?
- How did participants go about creating visual lending materials?
- Have they used or considered an interdisciplinary approach to teaching the kinds of VL skills typically included in their classes?

- Would participants consult a librarian or curator or look to the library/museums for teaching materials or expertise that could help?
- What were the participants' concerns when asking students to create a visual project?
- Using data visualization in teaching: What data were students using? What did the data visualization assignments look like? What support did students need the most?

Results

Among the 55 faculty and instructors who participated in the online survey, 13 volunteered for the interview, and the author interviewed eight due to participants' availability. The author gathered valuable information from the responses and performed a statistical and contextual analysis of the data.

Figure 1 shows the academic departments or fields of study participants are affiliated with. Since the goal was to understand which field participants were affiliated with, the short-answer question prompted participants to answer either their academic departments or areas of study (as shown in "Academic Department or Field as Participant Named"). Twenty-seven participants were affiliated with a STEM field or a science-heavy subject (as highlighted in yellow), and 28 participants self-identified as affiliated with an art or humanities field (as highlighted in green).

VL prevails in humanities, with more significant influence in subjects directly working with or relying on visual materials (Felten, 2008). It is reasonably unexpected to see that faculty and instructors from science and engineering fields had a similar level of interest and incentives with those from humanities about teaching visual literacy skills. On the other hand, the result represented a good number of academic departments. It resembled the teaching population at the university, which emphasized the impact of this survey as an environmental scan of the UD community.

VL is a relatively new concept in many academic fields. One of the goals of library instruction is to introduce pedagogical practices and teaching tools to faculty and instructors. New faculty are often targeted for teaching and learning outreach because they are perceived as new to instruction, agree that instructional practices are worth learning, and are constantly searching for new teaching skills and tools apart from how they learned as students (Jones, 2008). Hence, the author expected the online survey to reach a higher number of newer faculty and instructors. However, among all participants, only 7.3% self-identified as teaching at UD for less than two years. 21.8% of participants taught at UD for two to five years, and 10.9% for 5-10 years. Surprisingly, 60% of participants who filled out the survey had been at UD for more than ten years. The unexpected result revealed that faculty and instructors teaching at the university are probably more comfortable with their positions and instruction experience, therefore, looking for more authentic ways to engage students in learning. The other possibility is that newer faculty and instructors might have more exposure to visual learning as students or pedagogical training versus faculty who have been in instruction longer and might have fewer opportunities to interact with new pedagogical practices, either as instructors or as students. This result reminded the author that new faculty and instructors should not be the only focus for prompting library instruction and tools, especially regarding teaching VL.

In the following question about the importance of visual information in classes, 36.4% of participants said visual information is "extremely important" in classes they are currently or will be teaching. While another 29.1% stated "very important," 21.8% "moderately important," and "5.5%" slightly important, only 7.3% said "not at all important." While a high percentage of participants found visual information important, there was a discrepancy with participants recognizing and applying the concept of VL in teaching and learning, which will be discussed later.

Figure 1*Table of Survey Participants' Academic Affiliations*

Academic Department or Field as Participant Named	School/College	Number of Participants
Kinesiology & Applied Physiology	College of Health Sciences	2
Biological Science	College of Arts and Sciences	2
Department of Physics and Astronomy	College of Arts and Sciences	2
School of Marine Science and Policy	College of Earth, Ocean and Environment	2
Chemistry	College of Arts and Sciences	1
Physical Therapy	College of Health Sciences	1
Department of Animal and Food Sciences	College of Agriculture and Natural Resources	1
Plant and Soil Sciences	College of Agriculture and Natural Resources	2
Medical and Molecular Sciences	College of Health Sciences	1
Computer and Information Sciences	College of Engineering	2
Civil & Environmental Engineering	College of Engineering	3
Department of Human Development & Family Sciences	College of Education and Human Development	2
Communication Science	College of Health Sciences	1
Management Information Science	Lerner College of Business & Economics	1
Department of Accounting and Management Information Science	Lerner College of Business & Economics	1
Biomedical Engineering	College of Engineering	1
Materials Science and Engineering	College of Engineering	1
School of Nursing	College of Health Sciences	1
Theater	College of Arts and Sciences	1
Department of Communication	College of Arts and Sciences	2
Anthropology	College of Arts and Sciences	1
Economics	Lerner College of Business & Economics	3
English	College of Arts and Sciences	4
Business Administration (BUAD)	Lerner College of Business & Economics	3
Education	College of Education and Human Development	3
Languages Literatures and Cultures	College of Arts and Sciences	3
Women and Gender Studies	College of Arts and Sciences	1
Music	College of Arts and Sciences	1
Art History	College of Arts and Sciences	1
Sociology & Criminal Justice	College of Arts and Sciences	1
Public Policy	Biden School of Public Policy and Administration	1
Art and Design	College of Arts and Sciences	2
English Language Institute (ELI)	English Language Institute (ELI)	1
		55

Figure 2*Importance of VL Skills for Students to Succeed in College Classes*

In order to be successful in my class, students must be able to (select all that apply)

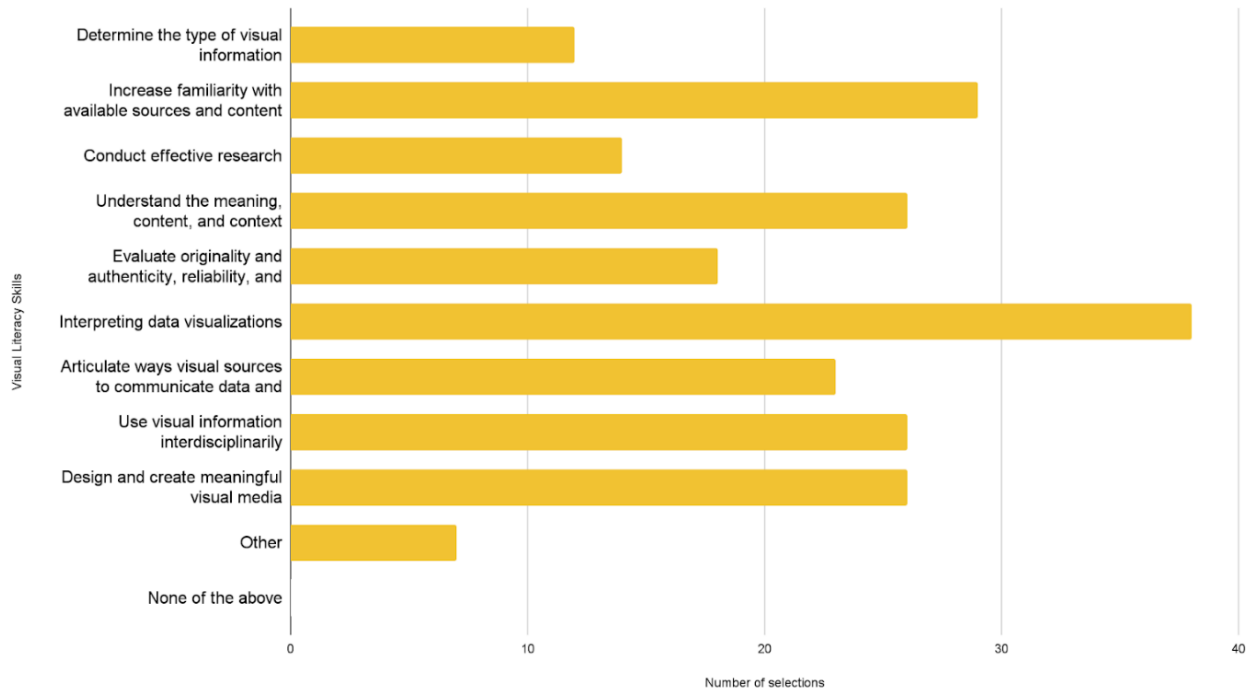


Figure 2 reflects the results (abbreviated from options in the survey) of what visual literacy skills would help students succeed in participants' courses. This multiple-choice question aimed to survey the importance of skills presented in *ACRL Visual Literacy Competency Standards for Higher Education Standards*. It is also crucial to note that the author rephrased standards for non-library professionals and incorporated learning outcomes from *ACRL Visual Literacy Competency Standards for Higher Education*, such as "interpreting data presented within data visualizations." Providing options for data visualization was a response to the high number of requests in data visualization workshops at UD. The result nevertheless shows the trend of VL in multidisciplinary instruction: The critical VL skills for students to succeed are moving away from the foundational "interprets and analyzes the meanings of images and visual media" ("ACRL Visual Literacy Competency Standards for Higher Education," 2011) to interpret data visualizations and use visual materials as communication tools. This surprising result might be due to the high population of participants from the science and engineering fields, as they were not the typical target of VL instructions and research.

The author spotted the discrepancy when showing participants the definition of VL and learned that only 47.3% encountered the concept in their careers as professionals or scholars. While 12.7% of participants were unsure, 40% had never heard of visual literacy. This knowledge gap prompted the author to question participants later in one-on-one interviews about professional development opportunities and confidence levels in teaching using VL concepts.

In the following question, participants shared, from the perspective of their discipline, what VL "look like" to them. The author was hoping to see examples such as in-class activities and assignments. A set of norms was created based on the answers, while a participant's answer could match multiple norms. Fifteen participants mentioned "image analysis," which is when a participant mentioned the evaluation, analysis, or understanding of both the conceptual and the aesthetic information conveyed by visual materials that are not data visualization. This also includes evaluating the material to identify biases, social and historical

developments, and the importance of media or format. Contrary to what faculty and instructors believed “interpreting data visualization” to be the most effective VL skill, analyzing images still lays the foundation of VL, especially among scholars who have encountered or implemented VL concepts in instructions. “Data interpretation,” or interpreting data visualization or scientific models in any form, including extracting data, was mentioned nine times. Six noted “communication,” which pointed to participants who highlighted the use of visual materials in forming some communication with audiences in mind, either among peers or in the form of teaching and presentation. “Creation” was also mentioned in six answers, as participants stated that creating visual materials in any form, including infographics, artworks, and multimedia creations. This also includes synthesizing or constructing visual materials. Unlike “communication,” the activity of “creation” does not require audiences in mind. It is crucial to point out that the author engaged faculty members in interviews in this topic further. Many participants said they had enough support for using design tools, either from students’ pre-requirement classes or partners such as preceptors. Faculty from the STEM fields did not want students’ works to be penalized for aesthetic reasons. They mainly considered how design impacts the delivery of information. VL being “part of curriculum or field” has been mentioned four times. Participants stated that visual literacy is relevant to their curriculum or fields of study, such that some or all visual literacy skills are a part of their fields’ common practice or lesson plan and tied into cultural studies and literary studies. Finally, two participants related visual literacy to “critical thinking,” as VL is part of or represented by critical thinking skills. This fits into the recent definition of VL as how those skills go beyond academic disciplines boundaries and firmly link to information literacy and critical thinking (Milbourn, 2013). The result encompassed voices across disciplines, but faculty and instructors did not discuss the content, context, or assignments they referred to but only the skills. Hence, the result of this open-ended question had missing content that the author was interested in analyzing.

Overall, the survey results responded well to the questions about who the faculty and instructors are interested in learning about VL, what gaps may exist in teaching VL skills, and what the different levels of awareness of VL reveal. As the author identified knowledge and needs gaps from some unexpected results, questions targeting those gaps were implemented in one-on-one interviews, and the responses will be discussed in the following section.

Discussion

The author reflected on the survey results to create interview questions, hoping to clarify findings from the results, and unravel the reason behind discrepancies in the survey. Combining the responses from interviews with data from the survey, the author identified four major challenges librarians faced in promoting VL skills in multidisciplinary university classrooms. The results also suggested four takeaways for institutions to implement as the starting point for engaging more campus teaching communities to enrich students’ VL skills.

Challenges

“Visual Literacy” Means Different Things in Different Fields

The first challenge came from the discrepancy between most participants perceiving visual materials as somewhat crucial in their classrooms, but less than half had heard of the VL concept before. There was a high demand for data visualization to be a critical skill for students to succeed in classes. But when asked what VL looks like in classrooms to participants who encountered the concept before, the number of participants valuing data visualization dwindled. This issue could be a sign that most faculty who valued data visualization were from the STEM field, and they were not exposed to the term “visual literacy” in their field of studies. Instead, they addressed each skill under the umbrella term as independent skill sets.

As the author raised this gap in interviews, participants from the STEM field pointed out that they say “make a graph” or “create a table” rather than “data visualization” and make the connection with “visual literacy,” a phrase unfamiliar to their field: “Even if they are the same thing, we say it differently.” There are differences between librarians teaching visual literacy skills in a workshop, museum staff curating an exhibition to promote visual analyzing skills, and a science professor asking students to create a chart.

Regarding the different languages academic fields use to communicate the same idea, another participant noted that it was because of how faculty learn when they were students: “For science faculty, we feel pressure from trying to build the courage to provide the richest content, and often that’s the tradition of how we learned. Where bridging the museum experience, or any other non-science experience was not really

part of the learning process, the science learning process...and we forget how some of these more humanity types of spaces can actually be very powerful."

Limited Time

For students to be successful in classes, participants were interested in support from the library and museums to help students "explore visual information sources to increase familiarity with available sources and subject-related content" and "understand the meaning, content, and context of a given visual source, including bias and perspectives." In interviews, six out of eight participants said they would welcome incorporating materials or visits to museum galleries and special collections to enhance students' skills in interacting with visual materials. However, they all mentioned that there is never enough time in a course or a semester, and VL as a skill set was never their priority in teaching. Not only do students not have enough time to digest what they learn, but faculty and instructors also struggle to create new activities and assignments in their courses. One participant said,

"I would love to have beyond STEM type of interdisciplinary engagement. When I was brand new to UD, an idea that I sort of put on the back burner was that I want students to study [with primary sources from the special collections]...I always feel like the day-to-day operation of this catch up to me, and the dreams sort of fade out."

Another faculty member commented on bringing students to museum exhibitions, saying they could not do so because "I think it's tricky because time is not on our side."

Student Learning Barriers

The goal of instruction is always tied to students' learning outcomes. More often, faculty and instructors can identify students' learning barriers but worry about their learning outcomes. For example, a faculty member from the Department of Art and Design said that they introduced the concept of VL and integrated lessons such as "close-looking" a work of art or a writing assignment reflecting a museum visit. The faculty stressed helping students make the most out of VL activities, but students were often confused, struggled, or bored because "[students] don't like to dig very hard and very deep, and they don't like to go beyond some of the initial ideas."

A few participants recognized that museums and special collections staff could lead visits to exhibitions and materials to deepen students' understanding of class content in a visual approach but were hesitant to seek those learning opportunities. One faculty member raised the concern, saying:

"The first time I heard about the particular approach, I am not 100% sure how I can do that because ... most of the courses I teach are the first-year courses that do have large enrollment. My experience is that if I were to take a group of 70 students to the museum, maybe 2 or 3 would get something, the rest will not. And the time does become an issue of how to do it."

Similarly, another faculty concerned about students' learning outcomes and interest levels said,

"I find that students are [thinking that they are] going on field trips because I would think you want to go out and see how things exist in the real world. But there are a lot of hesitations: Students just don't really want to. So it kinda doesn't use my time well to set time up and go do something like that."

Disconnection Between Interest and Services

The disconnections are twofold. Firstly, faculty and instructors might be interested in incorporating VL skills in their classrooms, but they need help to connect to the service. Half of the participants mentioned in interviews said they "heard of" visual literacy workshops in the library or saw their colleagues taking students to museums and special collections, but they did not know how to get involved. In the library, the Digital Initiatives and Preservation Department held workshops every semester on data visualization and welcomed the opportunity to get involved in courses with data process and visualization needs. However, participants with great interest in supporting students' data visualization skills either have yet to work with or hear of the department. What stopped those faculty to seek more help from on-campus partners? One participant explained,

"I think maybe I was trained in how to interpret graphs in graduate school, despite reading so many research papers and going over them in lab meetings. But in terms of how to teach them or who could teach them, no, I don't think I've received support on that."

The second disconnection came from faculty and instructors already seeking help from the library and museums. They were comfortable seeking support from their liaison librarians but did not know that the Visual Literacy Librarian could tailor activities to support related skills. They also were not exposed to other library resources and services, such as museum exhibitions, special collections materials, and film and video collections. These could introduce authentic ways to help students develop VL skills in unique approaches.

Takeaways

The variety of experiences and different levels of expertise among faculty indicate challenges in applying multidisciplinary VL instruction and key opportunities for the library and museums to review and introduce programs and resources that enhance visual literacy teaching and learning.

Speak the Languages of Other Fields

One of the participants said,

"Data visualization sounds like something that liberal art students do, and like 'graphical interpretation' or something literally like 'get your students to make graph[s],' you will get lots more interest from STEM professors because they understand those words and usually sounds very straight to the point. Even if it's the same presentation, call it different things, depending on who your audience is."

While many science fields include VL as part of the curriculum and as a component of scientific literacy (Rybarczyk, 2011), faculty are not a monolithic, featureless group.

Brophy (2007) stressed that the conversations between librarians and their patrons are the key to building relationships. He underlines that librarians need to be part of dialogues in the research and communications of their patrons' fields because "the issue is not just about terminology but more critically about concepts and interpretation" (p. 517). The institution should facilitate conversations about teaching VL skills among librarians, especially subject librarians. Only when the Visual Literacy Librarian knows the language that other academic disciplines are speaking and subject librarians have exposure to the current discussion and teaching in VL, the library can provide approachable VL support to all faculty and instructors in need.

"Train the Trainers" and Take Bite-Size Approaches

Almost all interview participants mentioned that they welcome "collected resources" as professional development or teaching resources. "Training the Trainers" can be small yet effective steps: If librarians train faculty and instructors across higher education with skills teaching VL, different academic fields can scaffold those instructions and resources by adding discipline-specific knowledge and applications (Huber et al., 2021).

Understand that faculty and instructors have limited time to implement new lesson plans, librarians can curate resources for faculty to grow their knowledge in teaching visual literacy and provide bite-size materials, such as in-class activities or homework assignments. To name a few, librarians can refresh and popularize research guides with new bite-size resources, create video tutorials, or work with subject librarians to add VL materials in newsletters or blogs based on the academic department's teaching and learning needs.

Share the Expertise of Colleagues and Teams in Authentic Ways

In response to faculty and institutes who disconnected from library and museum services, the author suggests that it is crucial for colleagues in the library and museums to reduce the invisibility among departments. The organization should hold events internally to help librarians and staff learn about each other's fields and expertise. During an outreach event or a consultation, it is important for library staff to provide information to their patrons about related resources and services from other departments.

Opportunities in New Forms of Collaboration

Faculty have amazing ideas for connecting VL skills to their disciplines. Since they have limited time, they need incentives for collaboration and connection with the right services. Through professional connections or word-of-mouth, librarians should find ways to keep in the loop of possible collaboration projects involving

VL in unique ways. As an excited participant stated, "I feel if I were going alone solo at it, it would be much more challenging...I am very confident that we can do this because I am a part of a team, together we are doing it."

Future Research and Application

Increasingly, VL skills are more critical than ever as an element to help students succeed in their academic life. The approach of surveying faculty and instructors on how they were teaching visual literacy skills and what support would benefit their student learning was only the starting point of this conversation. The survey results and interview responses shed light on challenges in promoting visual literacy to academic disciplines across the campus. To debunk those challenges, takeaways provided practices that guide the author's home institution and other passionate academic libraries to popularize support in VL instructions. In the future, the author would like to focus on assessing teaching VL as an interdisciplinary skill set in nontraditional academic disciplines, such as the STEM field. Hopefully, this needs assessment will contribute to filling the gap in relevant discussions, engage more practitioners to support VL instructions across campuses, and demonstrate the greater value of VL in higher education.

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