

**Information Literacy and Critical Thinking Skills Instruction in First- and Second-year
Students: A Focus Group Study**

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This study focuses on the need for information literacy and critical thinking skills instruction for undergraduate first- and second year students in an academic library. The American Library Association (1989) stated that

ultimately information literate people are those who have learned how to learn. They know how to learn because they know how information is organized, how to find information, and how to use information in such a way that others can learn from them (p. 1).

In support of this, information literacy has been included as a core value of the American Library Association (2019), and as such, the Association of College and Research Libraries (ACRL) introduced a framework for information literacy, including core concepts and how to effectively implement information literacy instruction in academic and research libraries (Association of College and Research Libraries, 2016).

Many academic libraries have used this framework to develop their information literacy mission (e.g., Lane Community College Libraries, 2018). Using the ACRL framework, libraries should provide fundamental instruction to students on how to effectively find and evaluate relevant online and print resources and organize information. In addition, libraries should encourage “open inquiry and serve as a catalyst for the interpretation, integration, and application of knowledge in all fields of learning” by providing relevant supporting services and resources (Lane Community College Libraries, 2018, p. 1). Information literacy instruction should also teach students how to evaluate information critically, and understand the scholarship process (Falcone, 2020).

Since standards for information literacy instruction are still being developed, some of the fundamental aspects of information literacy instruction can be overlooked by librarians with limited resources, and instruction varies depending on the type and size of the academic institution (Gardner et al., 2020). Therefore, in this research, a focus group was utilized with a goal to understand the type of instruction received by students, and how the library staff can improve information literacy and critical thinking skills instruction for first-year students in the library to enhance scholarship and student success throughout their college career.

Method

Procedure

One online focus group was conducted that lasted 12 minutes. The group moderator was a graduate student in the Master of Management in Library and Information Science at the University of Southern California. Zoom online software (<https://zoom.us/>) was used to conduct the focus group session, which was recorded. All participants agreed to being recorded. The recording was transcribed for analysis.

Participants

A total of 3 participants—1 male and 2 females—took part in the study. Participants ranged in age from 19 to 21 years. The ethnicity of all participants was White. The participants were all second-year students majoring in science or engineering.

Focus Group

The focus group discussion consisted of two main questions. The first part focused on library reference help and information literacy instruction and skill development. An example question was “What type of formal or informal training or instruction have you had on how to use the library (in person/online) and search for information effectively?”. The second part

focused on the likes and dislikes of information literacy instruction. An example question was “If you received instruction on how to conduct an effective search, what did you like about the instruction and why?”. The moderator guide can be seen in Appendix A.

Findings

Data collected and analyzed from the focus group indicated that there is considerable variation in what, how, and when information literacy and critical thinking skills are taught to first- and second-year college students in libraries or by librarians. The findings are summarized as follows:

Type and Frequency of Instruction

Two thirds of the participants indicated that they had received very little formal information literacy instruction at college through the library, and one participant indicated that many skills in this regard had been taught at middle and high school; however, found that instruction in the first two years of college solidified these skills. Regarding information literacy instruction at college, the participants indicated this was from librarians through specific courses if there was an assignment where these skills would be needed, such as for a research paper. Based on the participants responses, these were mostly conducted in the library. For example, one participant noted “we did go to the library, and it was associated with class if we had a research paper”. The participants indicated this type of instruction was irregular and infrequent, occurring occasionally, usually at the start of a semester where there would be a “library day”.

Information Literacy and Critical Thinking Skills

The participants indicated that the skills taught by librarians included how to find relevant sources, effectively navigate and use relevant databases proficiently, and use different search engines. For example, one participant indicated librarians helped when “there was a big

assignment” to “find sources” and “use a database”; another participant noted librarians helped “target databases we should focus on”. However, as mentioned previously, many of these skills, such as identifying, locating, and analyzing sources had been taught prior to college, or were self-taught by participants in this focus group. Additional skills participants learnt through library instruction were how to filter results after conducting a search, find the correct citation for the type of paper, format papers correctly, and use references cited in papers to develop research further (i.e., references from references). However, most writing, critical thinking, and analysis was not instructed through the library, but through writing centers or faculty. For example, a participant noted “I have always been heavily instructed not to intentionally or accidentally plagiarize...professors would always emphasize citations”, and another participant added they learnt “how to structure papers with arguments and information found at reading/writing workshops at school”. In addition, much of the library instruction was regarding formatting of research papers, with little emphasis on content and critical analysis, as noted by a participant: “instruction was geared towards format and the way [the research paper] is shaped, not so much content”.

Citation Management Tools

None of the participants had received any formal instruction from the library regarding the use of citation management tools, and or heard of the tools mentioned by the moderator (Zotero (<https://www.zotero.org/>) or Endnote (<https://endnote.com/>)). However, one of the participants had used Citation Machine (<https://www.citationmachine.net/>), a different citation management tool, which was self-taught. All participants agreed that instruction in these citation management tools would be useful.

General Feedback

Generally, all participants agreed that they were relatively information literate when entering college; however, noted that although the type of instruction they received through the library might not have been greatly beneficial to them, it would have benefited those students who had no prior knowledge of information literacy. For example, one participant noted regarding instruction “I felt for people that who had not had much [instruction], I could definitely see it as being valuable”.

Discussion

The findings indicated that most of the students participating in this focus group were relatively information literate when they entered college. Although the students received information literacy instruction in some form, it was not necessarily understood as information literacy instruction. This was also true in a study by Morrison (1997), who concluded that information literacy should be more clearly defined for students. It is possible that the students in this focus group were relatively privileged; therefore, had the benefit of information literacy support prior to college and since this was a relatively small focus group, these results do not necessarily reflect the experiences of the broader student body.

The information literacy instruction the participants in this focus group received was perceived to be erratic, mostly coinciding with research papers in support of faculty goals. However, the general skills that students in the focus group were taught are in line with the ACRL information literacy framework, including the effective use of search engines and filter application, how to navigate databases, find relevant resources, and analyze source authority (Association of College and Research Libraries, 2016). In addition, skills taught also included formatting and reference citation, but there was no instruction on the use of citation management software tools. A possible explanation for this is that librarians were not trained in using these

citation management tools themselves, so lacked the knowledge to pass this information on. The participants generally found the instruction useful, especially for those students that had not previously been exposed to any type of information literacy instruction. However, they felt that it could have included more emphasis on content development for research papers, indicating a need for further critical thinking skill development. The goal of the focus group was met, as it provided an understanding of the type of information literacy and critical thinking instruction received by students, which was mostly coordinated by subject liaison librarians with faculty needing research support for student research assignments. Based on the feedback, the library could provide more instruction on critical analysis of resources, as well as how to effectively develop research paper content. In this regard, there could be more coordination and collaboration between the institute writing centers and the library.

This focus group did not have enough participants, and as a result did not truly represent the diversity of the student body, so could not definitively describe information literacy instruction received by first- and second-year students. To overcome this, more focus groups with more participants should be carried out, ensuring the diversity of the student body is represented. In addition, the questions in the moderator guide were not specific enough and should be revised to ensure the data obtained is easy to interpret, and the moderator should follow through with relevant probe questions.

Finally, as in the study by Young and Von Seggern (2001), there should be more emphasis on information seeking behavior by students, in addition to information literacy. If librarians understand what students are looking for, they can understand potential gaps in information literacy instruction and develop these to ensure a more robust resource to support the information literacy goals and mission of the academic institution.

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Appendix A: Moderator Guide

1. Introduction/Warm up
 - a. Introduce yourself, tell us your major, what year you are in, and what kind of experience you have in libraries when looking for information.
2. Library reference help and skill development
 - a. What type of formal or informal training or instruction have you had on how to use the library (in person/online) and search for information effectively?
 - b. Was your information instruction through the library, or was it through a particular course, and if so, what course, and what was the instruction?
 - c. If you have had instruction through the library, and through your courses, which type of instruction did you prefer, and why? If you have not had instruction, what would your preference be, and why?
 - d. Regarding this training, how has it helped you to identify, locate, and analyze the information (or how do you think it will help if you have not had training)?
 - e. When you are organizing your information, what software tools, such as EndNote or Zotero, have you been taught to use, and in what way was this instruction useful?
 - f. What type of instruction did you have regarding writing up your research based on the information you found?
3. Likes and dislikes
 - a. If you received instruction on how to conduct an effective information search in the library database, locate and then analyze the information, what did you like about the instruction?