

At the Intersection of Information Literacy and Written Communication: Assessing Students' Source-Based Writing

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While much library instruction focuses on finding, evaluating, and citing information from sources, another element of information literacy is the ability to effectively use information. In an academic context, students are expected to incorporate information from sources into their papers in order to meet the goals of the assignment. Doing this effectively requires appropriate use of quoting, paraphrasing, and summary, as well as the awareness of the purposes that information from sources can serve in written communication. To get a baseline measurement of how well our students were performing in these areas, we addressed the following assessment question: How are students using information from sources in their papers and what motivates their choices?

This investigation was conducted at California State University, Monterey Bay (CSUMB), from 2022-2023. During that time, the institution's enrollment ranged from 6,500-7,000, with about 90% of our students being undergraduates. We are a Hispanic Serving Institution, with Latiné students making up our largest racial/ethnic group (46%). Fifty percent of our students are first generation and 30% are low income.

This project was part of the work our institution does annually in assessing our undergraduate learning outcomes, of which information literacy is one. This work is coordinated by CSUMB's Center for Teaching, Learning, and Assessment, which has funding to pay faculty a small stipend to participate in campus-wide assessments. Faculty from across campus are recruited to participate as assessment scholars, which includes spring semester meetings to plan the assessment, two days in the summer to conduct the assessment, and fall semester meetings to analyze the data and make improvements to teaching and learning. Each learning outcome has an assessment coordinator who facilitates this work, and the author/presenter serves as the assessment coordinator for information literacy.

Methods

Our analysis of student work was inspired by some of the methods employed by the Citation Project,¹ but is distinct in some important ways. The Citation Project is a multi-institutional study that has resulted in a wide range of publications, primarily focused on the analysis of citations in papers from first-year composition classes. In contrast, our multi-disciplinary team of six faculty assessed student papers from 300-level writing classes, hoping to get a baseline measurement of the skills of our students who had already been in college for a couple of years. Unlike the Citation Project, which included student work from multiple institutions to create generalizable results, our assessment focused on our own institution, looking for information that would help us make local improvements to teaching and learning.

One of our required classes at CSUMB is the Graduation Writing Assessment Requirement (GWAR), a 300-level class designed to introduce students to disciplinary writing in their major. For the first phase of our project, we included six GWAR classes, with at least one from each of our degree-granting colleges, and collected student papers from each. The programs represented were Business, Communication Design, Environmental Studies, Human Development and Family Sciences, Japanese Language and Culture, and Kinesiology. Student work was anonymized so that the student and the class could not be easily identified by the faculty scholars doing the assessment.

For each paper, each instance of information from a source was treated as a separate item to be coded. The in-text citations were linked to their sources in advance by a student worker to facilitate the assessment process. During the assessment, each occurrence of an in-text citation was coded by two faculty scholars, and any coding discrepancies were resolved through discussion. Cited information was first coded as a direct quote, a paraphrase, or a summary, and each of these categories had additional codes related to the nature of its use and its appropriateness. Information regarding the presence of synthesis, the rhetorical purpose of the information, and its location in the paper were also recorded.

This was an incredibly time consuming process, and at the end of two full days, our team of six had scored only 14 papers, with a total of 204 instances of cited information. We prioritized evaluating full student papers over sampling the citations therein because one of our areas of interest was where in student papers cited information tends to be present. While this sample is not as representative of student work in GWAR classes as we might like, it does provide a snapshot of how students are using information from sources at our institution.

In the second phase of this project, we conducted focus groups with seven GWAR classes from five disciplines in order to gauge students' perspectives on our phase one findings and to better understand their motivations. Again, at least one class from each of the degree-granting colleges was included: Business (2 sections), Communication Design (1 section), Kinesiology (1 section), Liberal Studies (2 sections), and Social and Behavioral Sciences (1 section). Across these classes, a total of 100 students participated. These focus groups doubled as instructional workshops, as we first had students respond to prompts about their practices and attitudes, and

then followed by presenting our best practices for source-based writing. Participants wrote their responses on sticky notes that they stuck to a piece of chart paper corresponding to each prompt, allowing us to synthesize and discuss their responses in real time while maintaining anonymity.

These responses were transcribed into a spreadsheet by a student assistant. Coding of the resulting qualitative data was conducted in NVivo by a multi-disciplinary team of six faculty scholars, who overlapped in part with the faculty scholars involved in phase one of the project. A codebook was developed in advance of the assessment by the participating scholars, using samples of student responses to create codes. Additional codes were added during the coding process. Faculty scholars were able to discuss some coding discrepancies during the process, and for the remainder, the facilitator served as a third coder. At the conclusion of the assessment process, the facilitator also reviewed the coding, ensuring consistent application and modifying the coding hierarchy when necessary.

Results

Our analysis indicates that the students included in the assessment were primarily writing from sentences rather than sources, a concept articulated by some of the Citation Project scholars to describe the use of direct quotes and paraphrasing instead of summarizing.² In our sample, 35% of cited information was in direct quotations, 39% was paraphrased, and 21% was summarized. For the remaining 5%, we were not able to find the cited information in the source.

The vast majority of direct quotes (98%) were properly formatted to indicate that the language was taken verbatim from the source. A “quote sandwich” is the practice of introducing a direct quotation, providing the quotation itself, and then explaining its significance. This is considered a best practice, as it contextualizes the quotation. In 26% of the direct quotes we coded, no element of the quote sandwich was present. Forty one percent included either the introduction or explanation of the quotation, but not both. A complete quote sandwich was present in 33% of direct quotes.

Direct quotes were often used when a paraphrase would have been more appropriate. In advance of the assessment, our multidisciplinary group of faculty created a list of the situations in which a direct quote would be a preferred/acceptable alternative to a paraphrase. These are: the source being quoted is a primary source (historical document, work of fiction, etc.), the quote defines a term that the author created, the quote is written so beautifully that rewriting it would be inconceivable, and the student’s analysis depends on specific language in the quote. Only 10% of direct quotes fell into these categories; for the remaining 90%, it was judged that a paraphrase would have been more appropriate.

When coding paraphrases, we distinguished between successful paraphrasing, in which the writer transforms the text into their own words, and patchwriting, in which the writer makes minimal alterations to the original text.³ In our sample, 63% of paraphrases were successful, while 37% were patchwritten.

Summary was used to present 22% of the cited information, using Jamieson and Howard's definition of summary as information from at least three consecutive sentences that has been reduced in length by 50% or more.⁴ In most cases (88%), we did not see any evidence of synthesis, which we defined simply as writers making connections between information from multiple sources.

Indirect citations, in which the student cited a source for the information, but the information originally came from a different source, made up 21% of our sample, which is a high percentage considering that this is a practice that should be seldom used. More concerning, 71% of the indirect citations did not attribute the idea to the proper author. For 94% of the indirect citations, faculty scholars deemed that the student could have reasonably found the original source.

There were a number of different ways that cited information was used by students in their papers. The most common use was as background information (39%). In 25% of citations, the cited information itself was used to make a point, in contrast to the 22% of citations in which the cited information was used as evidence to support a point that the student was making. Less frequently occurring categories were cited information used as an illustration (7%), to define a term (4%), to support an interpretation (2%) or to provide contrast (2%).

Faculty scholars coded both where the cited information was present in the students' papers and where it occurred in the source. Many student papers did not include standard sections, and so most of the cited information was coded as being in the body of the paper (54%). Sixteen percent of the cited information occurred in the introduction of the paper, and another 16% in the literature review. Less common, in part because these sections were not present in many student papers, were the findings/results (9%), the conclusion (3%), and the discussion (1%).

As faculty scholars looked at where students had found the information in the original sources, the most common location was again the body (63%), because many sources were not scholarly (assignment prompts differed in their requirements) and did not include typical research paper sections. Seventeen percent of the cited information came from the introductions of the papers, 6% from the findings/results, 4% from the literature review, and 4% from the conclusion. An additional 3% came from the discussion, and the remaining 2% was coded as "other," which included the title, abstract, and figure captions.

Some of the results reported above were shared with students the following year as we conducted focus groups with them. Showing them trends in student behavior served as a starting point for conversations about why students make certain choices when writing papers with information from outside sources.

The first question we posed to the focus groups was: "When you have an assignment for a class, and you see that you're required to cite information from outside sources (such as library research), what's the first thought that goes through your mind?" The responses exposed some

negativity associated with assignments that require information from outside sources, with 50% of participants anticipating the task to be difficult or time consuming and 28% describing a negative emotional reaction. When asked about the most challenging aspects of such assignments, the most common responses were finding sources (60%), evaluating sources (57%), and citing sources (26%). The most rewarding parts of the process were often related to successful execution of the assignment, such as finding good sources (36%) and academic concerns (33%) like completing the assignment or getting a good grade. Learning new things was mentioned by 29% of respondents as rewarding.

Despite some negative sentiments, students were able to identify reasons why instructors employ these types of assignments. In response to the question “Why do you think your instructors ask you to bring information from sources into your papers?” 82% of respondents noted that this would improve student learning, such as by requiring students to consider outside sources of information or making them more prepared for future academic work. Forty two percent of the responses related to improving the quality of their papers, by increasing their credibility or by incorporating other points of view.

We also asked students to list the purposes that cited information could serve in their papers. The most common responses were to support claims made by the student (42%) and to attribute information to sources (the latter may have been a misunderstanding of the question to be about the purpose of citations rather than the purpose of information cited). Other responses included using information with particular attributes, such as credibility or accuracy (31%), and presenting new ideas (23%).

Another set of questions related to the reasoning behind choices students made to use a direct quote, a paraphrase, or a summary. The most commonly noted reason for using a direct quote was that the author says it best (69%), followed by efficiency (32%). When choosing to paraphrase, 41% did so because they found it more efficient, 37% thought it was a preferable alternative to quoting, 37% said it improved the style or impact, and 22% liked that it allowed them to focus on what they thought was important. Students reported using summary when they thought it was most efficient (65%), or when it helped them achieve a specific purpose in their writing (43%), such as supporting a claim, adding their own thoughts, or emphasizing particular aspects.

In the final set of questions, we asked students what they wished instructors would include in their assignment prompts/instructions. The most common themes expressed desire for instructors to provide greater detail in their instruction prompts (45%), examples (42%) and additional information related to finding, evaluating, and using sources (31%). We also asked participants what they had learned in the focus group session that they will likely use in the future (recall that we provided our best practices after gathering information about student practices). The most common theme in the responses was related to how to incorporate information from sources into their assignments (78%). Sub-themes of this category included when to quote, paraphrase, or summarize; using a quote sandwich; how to paraphrase; and when to use paraphrasing versus summarizing. Another theme was awareness of resources

related to writing, citation, or using information from sources (23%); Zotero was frequently mentioned in this category.

Action & Impact

After analyzing our results, our group of faculty assessment scholars was tasked with using this information to make improvements to teaching and learning. For our annual assessment process, this typically means developing materials to support faculty instruction in these areas. One of the resources we developed was a “Source Guidelines Template,” which is designed to allow faculty to have a set of various guidelines for finding, evaluating, and using sources that they can choose amongst and copy/paste into their assignment prompts. This was in response to students requesting more detailed assignment prompts. We assumed that faculty may sometimes inadvertently leave out details related to using information from sources and hoped that this document would act as a reminder of different areas to address. Categories in the template include: types of sources to use in the assignment, finding sources, incorporating information from sources into your paper/project, and indirect citations. This document is available to faculty through the website of CSUMB’s Center for Teaching, Learning, and Assessment, and may continue to evolve as we gain new insights on student needs.

Because not all faculty have expertise in teaching writing, we also wanted to provide support beyond ideas for assignment prompts. Some of the librarians at CSUMB have targeted GWAR classes for library instruction sessions, and we are sometimes able (based on time and instructor preference) to address the incorporation of information from sources into writing. Additionally, our faculty assessment scholar group created a slide deck for instructors as a starting point for discussing these topics with their students.

Practical Implications & Value

The use of information from sources is a competency that is infrequently addressed in the library literature, perhaps because it exists at the intersection of information literacy and written communication. Our findings indicate that many of our students are not receiving sufficient instruction in this area, suggesting that it could be a welcome addition to library instruction. Specific areas to address include: 1) when a direct quote is appropriate; 2) the difference between paraphrase and summary, and how to correctly do each; 3) practices related to indirect citations; 4) how to synthesize information from sources; and 5) being intentional about the rhetorical purposes information from sources can serve in a paper. Many faculty at our institution have been open to (and grateful for) librarian-led instruction related to source-based writing.

One of our main takeaways is that while students had a variety of explanations for when they use a direct quote versus a paraphrase versus a summary, one strong theme that arose in each of these categories was efficiency. Students clearly value efficiency and often choose the method of source incorporation (direct quote, paraphrase, summary) that they find the most

efficient for the task. Students may need additional guidance regarding the other considerations that may trump efficiency when striving to be an effective (and information literate) writer.

While our assessment results are not generalizable to other institutions, they may indicate that this is an area librarians should address with their instruction, or with their own assessments. For those looking for additional methodological detail in order to replicate our assessment, or for a more thorough presentation and discussion of the results, a more comprehensive account of this project can be found in a recent publication by some of the scholars involved.⁵

Endnotes

1. "The Citation Project," accessed January 8, 2025, <http://www.citationproject.net/>.
2. Rebecca Moore Howard, Tricia Serviss, and Tanya K. Rodrigue, "Writing from Sources, Writing from Sentences," *Writing & Pedagogy* 2, no. 2 (Fall 2010): 177-192, <https://doi.org/10.1558/wap.v2i2.177>.
3. Rebecca Moore Howard, "A Plagiarism Pentimento," *Journal of Teaching Writing* 11, no. 3 (Summer 1993): 233-46.
4. Sandra Jamieson and Rebecca Moore Howard, "Sentence-Mining: Uncovering the Amount of Reading and Reading Comprehension In College Writers' Researched Writing" in *The New Digital Scholar: Exploring and Enriching the Research and Writing Practices of NextGen Students*. Eds. Randall McClure and James P. Purdy. (Medford, NJ: American Society for Information Science and Technology, 2013), 111-133.
5. Sarah Dahlen, Kelsey Nordstrom-Sanchez, and Nelson Graff, "At the Intersection of Information Literacy and Written Communication: Student Perspectives and Practices Related to Source-Based Writing," *Journal of Academic Librarianship* 50, no. 6 (November 2024): 102959, <https://doi.org/10.1016/j.acalib.2024.102959>.