Impact of Assignment Prompt on Information Literacy Performance in First-year Student Writing

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ABSTRACT

This study attempts to quantify the impact of assignment prompts and phased assignment sequencing on first-year student work; specifically, whether more fully developed and "scaffolded" assignment prompts produced better Information Literacy (IL) in student papers (n = 520). The examination of assignment prompts in relation to student IL rubric scores would seem to indicate that conventional wisdom on developing assignment prompts might not have an impact on IL performance.

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INTRODUCTION

Assignment design and consultation with disciplinary faculty is an area in which many academic librarians are involved (see, for example, Keyes & Barbier, 2013; Stone & Sternfeld, 2014). However, because librarians tend to be distanced from the final products of student labor, it can be difficult to know if assignment design has an impact on student work, especially work related to Information Literacy (IL) performance. In order to examine the effect of assignment design and librarian consultation on student IL performance, this study coded 42 assignment prompts from 54 first-year seminar courses among five undergraduate colleges and correlated the prompts to 520 student papers produced in those 54 classes. Papers were scored using an IL rubric (Appendix A). Results both confirm and challenge the literature on what constitutes a good assignment prompt and the benefits of sequenced assignments.

In a meta-analysis, Russell (2001) states that one of the factors impacting writing and learning in higher education are the "pedagogical tools that faculty provide (or don't provide) students" (p. 261). In 2010, Project Information Literacy released the results of a study where researchers examined 191 assignment hand-outs to see how IL concepts

(e.g., evaluation of sources, citation and plagiarism) were presented to students (Head & Eisenberg, 2010). They found that the majority of assignments focused on mechanics (e.g., how many sources to use, APA citation style) rather than substantive or pedagogical information (e.g., how to develop a research strategy, why citation is important, how to find and evaluate sources). "The handouts had few specific details about finding and using sources, making the guidance that was provided often vague and inapplicable" (Head & Eisenberg, 2010, p. 3). The present study sought to examine two questions: one, if prompts within our sample were still more mechanical than pedagogical; and two, if that mattered. In other words, do prompts make a difference in the quality of students' IL performance in their writing?

LITERATURE REVIEW

This literature review investigates the two areas related to the current study: sequenced assignments (also referred to as scaffolded assignments, where an assignment is broken into multiple, smaller assignments that progress in content and building complexity towards the final deliverable); and assignment design, including prompts and topic selection.

SEQUENCING ASSIGNMENTS

"The basis of a good writing course is a series of purposeful writing tasks" (Foster, 1983, p. 124). There are numerous examples in the literature that advocate for, and provide examples of, sequenced assignments (Collins & Moran, 1975; Kiniry & Strenski, 1985; Pytlik & Bergdahl, 1987; Sollisch, 1985; Walk, 2008). These sources are primarily focused on improving student writing rather than specifically

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[1] While the data analysis for this project was done at current affiliation addresses, the original paper collection and rubric analysis was done while all authors were at the Claremont Colleges Library, 800 N. Dartmouth Ave., Claremont, CA 91711, USA. M. Sara Lowe, Assessment Librarian; Sean M. Stone, Science Team Leader & Asian Studies Librarian; Char Booth, Director of Research, Teaching, & Learning Services; Natalie Tagge, Social Sciences Team Leader & Librarian.

addressing IL skills. Lindemann (1982) argues that effective writing assignments encourage students "to define progressively more complex rhetorical problems" (p. 205). Different studies have advocated for a variety of approaches to sequencing such as: in the context of students who are able to write persuasively but then do not write persuasively when tasked with writing a research paper (Bisson, 1981); corresponding to the intellectual development of the student (Roen, 1987); and situational sequencing in which writing assignments are connected in ways that allow students to apply what they have previously learned (Schuster, 1984). L. Smith (1984) emphasizes the importance of the recursive nature of sequenced assignments, which if not done may lead a student to "mechanically get each small writing task over with, like a tedious exercise" (p. 460).

There is some literature advocating for the sequencing of IL skills. Hovious (2015), in a blog post, notes the importance of sequencing research assignments. Bordonaro and Richardson (2004) write about a library education class which used a sequenced assignment approach; however, student gains were not statistically significant. Majetic and Pellegrino (2014) discuss a sequenced scientific literacy assignment to teach the connection between popular media and scientific literature, but results of student gains are anecdotal. While all of this literature can be helpful for librarians designing and developing their own instruction, the majority do not provide evidence that sequencing works to develop IL skills. One notable exception is Stevens and Campbell (2007) who introduced sequenced assignments in lower, intermediate, and upper-level Political Science courses and documented student gains via pre/post-tests and rubric-evaluated work. Overall, there is a gap in the literature of studies with proper assessment of student work to demonstrate the value of sequencing, particularly related to IL, hence the relevance of the current study.

ASSIGNMENT DESIGN (PROMPTS & TOPIC SELECTION)

What impact assignment design has on student writing has been the subject of much debate. Much of the assignment design literature focuses on the importance of identifying an audience to which students write, or rhetorical specification. In 1983, Brossell wrote, "There is almost no experimental research evidence to support the idea that full rhetorical specification assures essay examination topics that will elicit the writers' best writing" (p. 165). In 1990, Huot noted that research attempting to establish a relationship between assignment prompt and writing quality was inconclusive.

A handful of studies have shown some relationships between prompt and writing scores or other aspects of writing. Studies of college students at all levels found that those who received audience information received higher scores on their writing which in most cases were statistically significantly higher (Black, 1989) while first-year undergraduates who received audience information before writing did not score any higher than those with no audience information but, if given the information before revising their work, those with audience information did write better final essays than those with no audience information (Roen & Willey, 1988). However, Nussbaum, Kardash, and Graham (2005) in a study of undergraduate students found that those given more specific writing goals generated more counterarguments and rebuttals than the control group.

Other researchers have found no significant relationship between prompt and scores. Gray (1982) attempted to measure the effect of two versions of a writing prompt on scores and writing processes among high school students' grades 10–12. He found that while differences in prompts affected aspects of the writing process, paper scores were similar between variations. Hoetker and Brossell (1989) found that a topic with little rhetorical specification did not adversely affect poorer writers. Redd-Boyd and Slater (1989) gave undergraduate students one of three scenarios: imaginary reader, real reader, or no reader. When graded by both a set of readers and teachers, assigning an audience had a limited effect on reader's scores but no significant effect on

teachers' scores. Woodworth and Keech (1980), in a study of high school students, failed to find a difference in mean scores between students with three versions of prompts with varied degrees of audience and rhetorical specifications.

A study by Brossell (1983) produced interesting results relevant to the present analysis. The study consisted of three levels of rhetorical contexts (1 = low, 2 = medium, 3 = high) to test the hypothesis that topics with more robust rhetorical contexts would help essay exam writers produce better essays than those given less information on a topic. What they found was that different levels had a discernable, but not statistically significant, effect on essay scores. Specifically, essays written at the highest level had lower mean scores than those written at the lowest and medium levels and those written at the medium level had higher mean scores than the low or high levels. At least in this area, too much information does seem to interfere with a student's ability to write well. Hoetker (1982) hypothesizes that "the more language and information students are given, the more difficult it seems to be for them to get beyond the language of the topic to discover what they may themselves have to say" (p. 386–87).

Oliver (1995) conducted another interesting study attempting to determine the relationship between topic, purpose, and audience in writing prompts studying 7th, 9th, and 11th graders, and first-year college students. She found that with first-year students there were interactions between topic and audience. Prompts with either more or less specific information about both topic and audience resulted in writing that yielded higher scores than when topic and audience specificity varied in the prompt. "Results here indicate that a specific topic with a believable audience, or a very general topic without audience specification, provided students who have more experience and who pay more attention to rhetorical cues with a less confusing writing task" (Oliver, 1995, p. 435).

TOPIC SELECTION

Research in the area of interest and learning shows that students who are interested in a topic persist longer and pay more attention than less interested students (Hidi & Anderson, 1992). W. Smith et al. (1985) found that advanced writers performed significantly better than average and lower-level writers when writing on open-ended topics.

Overall, the literature on the relevance of assignment design to student outcomes is limited but leans towards the design being irrelevant or insignificant to student outcomes. The present study is a robust analysis of a number of aspects of assignment design, some of which have never been addressed in the literature as it pertains to IL and student assessment.

METHODOLOGY

This study was undertaken at The Claremont Colleges in Claremont, California, which are a consortium of seven contiguous but independent institutions situated around a common Library. Total campus enrollment is approximately 7,000 across five liberal arts colleges (Claremont McKenna College, Harvey Mudd College, Pitzer College, Pomona College, and Scripps College) and two graduate universities (Claremont Graduate University and Keck Graduate Institute).

The authors worked with first-year seminar coordinators and campus assessment or institutional review officers to collect papers (n = 520) and corresponding assignment prompts produced by [college name] students in first-year seminar courses over the 2013–14 academic year.[2] These were standard introductory courses that, while covering a variety of topics, emphasize writing, research, and basic student skills. The first-year seminars culminated in some sort of written project with an assessable deliverable such as a research paper. Papers were received from 54 separate first-year classes taught

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[2] Paper collection methodology approved by Claremont Colleges IRB.