Writing Instruction and Assignments in an Honors Curriculum: Perceptions of Effectiveness

Edward J. Caropreso

University of North Carolina Wilmington

Mark Haggerty and Melissa Ladenheim

University of Maine Orono

INTRODUCTION

Learning to write well is a significant outcome of higher education, as confirmed and illustrated in the Written Communication VALUE Rubric of the Association of American Colleges and Universities (AAC&U). Bennett notes that writing well is a singularly important capability, indicating that virtually all higher education programs intend for students to write better when they graduate than when they enrolled. Moskovitz refers to an AAC&U survey of member institutions in which writing topped the list of learning outcomes for all students.

Scholars agree that writing and thinking are linked. Oatley and Djikic discuss how writing externalizes thinking by using various media in the processes of manipulating symbols, and Kovac suggests that connections between writing and thinking express the metaphorical interactions between language and thought. Menary notes that the creation and manipulation of written texts is a fundamental component of our cognitive processing, such that writing transforms our cognitive abilities.

Thinking about this relationship between writing and thinking in the context of instructional strategies and assignments designed to improve students' critical thinking, we undertook research that began by surveying perceptions of writing competencies before and after taking a writing-intensive, four-course honors curriculum sequence.

For the purposes of this research, we coined the term "critical-thinking writing," defined as the ability to construct a thesis, build an argument, support arguments with empirical data, acknowledge alternative positions, synthesize, analyze, and draw conclusions. We distinguished critical-thinking writing from grammatical writing, which includes grammar, spelling, sentence and paragraph structure, and paper organization. We defined "instructional strategies" as the methods used by instructors to foster and critique the written work submitted by students with the goal of bringing about learning outcomes related to critical-thinking writing. The phrase "course assignments" refers to the planned student activities and specific tasks that demonstrate the extent to which students attain the desired learning outcomes intended by the course and instructor.

The research presented here grew out of faculty discussions about the relationship between course-related reading, critical thinking, and writing within the context of a land-grant university's honors college curriculum. This interdisciplinary "great books" curriculum is organized chronologically, with the first two courses in the four-course sequence meeting the writing-intensive general education requirement. "Writing-intensive" is defined at this institution as providing students the opportunity to revise at least one of their written course assignments and assigning the majority of the course grade based on the assessment of writing assignments. The last two courses in the sequence also meet the objective of writing outside of the major, so all four of the courses have a writing-intensive component.

RESEARCH QUESTIONS

The following four research questions were addressed in this study:

1. Do students perceive a change in their critical-thinking writing abilities as a result of their instructional experiences, and if so, what are those changes?

2. Do instructors perceive a change in their students' critical-thinking writing over the course of the instruction, and if so, what are those changes?

3. Are student and instructor perceptions about critical-thinking writing consistent?

4. What classroom strategies and assignments are perceived by faculty and students to influence critical-thinking writing?

METHODOLOGY

Driving our research were questions linked to perceptions of student writing competency before and after completing the writing-intensive honors course sequence. Given the context of this research, we used a non-experimental, two-group design involving convenience sampling of students and faculty.

Students were surveyed about their perceptions of their critical-thinking writing before and after completing the four-course sequence. We also asked them about the effectiveness of instructional strategies and assignments that they encountered over the four semesters. We emailed to students an announcement and invitation to participate using their university email addresses and provided them with a short description of the study, its purpose, and a link to the online survey at Qualtrics. We prompted them twice over the following two weeks to participate in the survey.

Similarly, we contacted faculty via their university email addresses and asked them to participate in a survey parallel to the student version. Faculty surveys included items about the extent to which they perceived themselves to be effective in bringing about positive changes in students' critical-thinking writing by virtue of their instructional strategies and course assignments. We also prompted them twice over the ensuing two weeks to participate in the survey.

Of the 368 honors students enrolled in the college who had completed the four-course sequence, 247 (67%) initiated the survey; of those 173 (47%) completed it. Fifty-nine percent of the student respondents were in their third year of study, 41% in their fourth year, and 1% in their fifth year. Seventy-eight percent of the fourth-year students were engaged in writing their thesis, which also represented 65% of students graduating with honors.

Of the 28 faculty who taught the cohort and whom we invited to take the survey, 20 (71%) completed it. The faculty who responded to the survey were experienced teachers from multiple disciplines. The mean length of time they had been teaching in higher education was 15 years. The least experienced faulty member had been a university instructor for 5 years. Half of the faculty had taught for 10 years or less in honors, and 40% had taught in honors for 21 years or more. While faculty might have taught in either or both years of the four-course-sequence, 70% of the faculty reported themselves as typically teaching in the first year and responded to the survey as such.

RESULTS

Table 1 presents student and faculty perceptions of the competency of student critical-thinking writing. In general, the majority of students, 66%, perceived themselves to have had above average or excellent critical-thinking writing competency prior to beginning the honors sequence while only 3% identified themselves as having had below average or poor skills.

By contrast, faculty perception of student critical-thinking writing at the beginning of the sequence is less positive than student self-perception. Faculty thought only 45% of the students were above average with respect to their critical-thinking writing competency. Faculty also perceived 15% of the students as below average in their critical-thinking writing competency.

TABLE 1. STUDENT AND FACULTY PERCEPTION OF THE QUALITY OF CRITICAL-THINKING WRITING

Perceived Competency	Student			Faculty		
	Beginning	End	Change	Beginning	End	Change
Excellent	14%	35%	21%	0%	10%	10%
Above Average	52%	55%	3%	45%	80%	35%
Average	31%	9%	-22%	40%	10%	-30%
Below Average	2%	1%	-1%	15%	0%	-15%
Poor	1%	1%	-	0%	0%	-

The faculty indicate that their courses had a significant impact on the quality of students' writing, reporting that 10% of the students were excellent and 80% were above average in critical-thinking writing after completing their course. These survey results were consistent with the students' perceptions of the quality of their writing after completing the sequence although students' perceptions tended toward "excellent" while faculty perceptions tended toward "above average." The students felt that they were better writers both prior to and after the sequence than the faculty did while the faculty felt that their writing instruction had generated a greater improvement in student writing skills than the students perceived.

Faculty typically used several instructional strategies to effect change in critical-thinking writing, including written papers, peer feedback, faculty members' written and oral feedback, paper revisions, assigned readings, and class discussions. Table 2 presents the students' ratings of the perceived impact of instructional strategies on their critical-thinking writing. Students perceived all of the strategies to be either very effective or effective at affecting their critical-thinking writing skills. The most significant strategies, with ratings of effective or very effective, were faculty's written comments (91%), the act of writing itself (89%), and the act of revising (87%).

Table 3 presents faculty perceptions of the effectiveness of instructional strategies for students' critical-thinking writing. Faculty indicated the strategies that they perceive as having the most significant impact were writing itself (95%), faculty members' written (100%) and oral (95%) feedback, revising the paper (95%) and class discussion (89%).

TABLE 2. RANK ORDERED STUDENT PERCEPTIONS OF TEACHING STRATEGY IMPACT ON CRITICAL-THINKING WRITING

Strategy[a]	Very Effective	Effective	Neither	Somewhat Ineffective	Ineffective
Feedback-Written	46%	45%	5%	2%	2%
Act of Writing	32%	57%	9%	2%	1%
Revising Paper	45%	42%	8%	4%	2%
Feedback-Oral	36%	47%	12%	3%	2%
Class Discussion	42%	37%	14%	1%	5%
Class Reading	17%	42%	27%	5%	9%
Peer Feedback	16%	40%	28%	8%	9%

Note: Percentages not necessarily 100% due to rounding.
[a]Ranked order of student perceptions of effectiveness from combined values of Very Effective plus Effective ratings.

Table 3.   Rank Ordered Faculty Perceptions of Teaching Strategy Impact on Critical-Thinking Writing

Strategy[a] (n)	Very Effective	Effective	Neither	Somewhat Ineffective	Ineffective	Difference in Faculty Student Perception
Feedback-Written (20)	50%	50%	0%	0%	0%	9%
Act of Writing (20)	60%	35%	5%	0%	0%	6%
Feedback-Oral (20)	60%	35%	5%	0%	0%	12%
Revising Paper (20)	55%	40%	5%	0%	0%	8%
Class Discussion (19)	26%	63%	11%	0%	0%	10%
Class Reading (17)	12 %	53%	29%	6%	0%	6%
Peer Feedback (15)	13%	47%	27%	7%	7%	4%

Note. Percentages not necessarily 100% due to rounding.
[a]Ranked order of faculty perceptions of effectiveness from combined values of Very Effective plus Effective ratings.

Faculty and students generally agreed on the effectiveness and ranking of instructional strategies for improving critical-thinking writing, but faculty consistently perceived all the strategies to be more effective than did the students. Both faculty and students perceived written feedback as generating a greater impact on student critical-thinking writing than the practice of writing itself, and both had comparable rankings for the act of writing and revising the paper, but faculty perceived that their oral feedback was as successful as the other strategies while students perceived it to have less impact.

Table 4 presents student perceptions of the impact of assignments on critical-thinking writing. Typical assignments designed by faculty to improve critical-thinking writing include weekly in-class writing prompts, lecture responses, journal writing, reading and lecture syntheses, online discussions, papers, and projects (see Appendix for descriptions). Table 4 indicates less agreement among the students about the positive impact of the writing assignments on their critical-thinking writing than about the instructional strategies. In general, students perceived the specific assignments to have a less positive impact on critical-thinking writing than the instructional strategies. They perceived writing papers as the assignment that had the greatest impact on critical-thinking writing (93% very effective or effective), and the majority perceived the other assignments as also having a positive impact except for journal writing and online discussions.

Table 5 presents faculty perceptions of assignment effectiveness in improving critical-thinking writing. Faculty reported that all of the assignments were

TABLE 4. RANK ORDERED STUDENT PERCEPTION OF WRITING ASSIGNMENT IMPACT ON CRITICAL-THINKING WRITING

Assignment[a]	Very Effective	Effective	Neither	Ineffective	Very Ineffective
Papers	49%	44%	4%	1%	2%
Projects	27%	41%	21%	7%	5%
Weekly Synthesizing	17%	51%	23%	6%	4%
Weekly In-class	16%	52%	23%	5%	4%
Weekly Lecture Response	18%	42%	22%	13%	5%
Online Discussions	7%	35%	38%	13%	7%
Weekly Journal	7%	35%	39%	12%	7%

Note. Percentages not necessarily 100% due to rounding.
[a]Ranked order of student perceptions of effectiveness from combined values of Very Effective plus Effective ratings.

TABLE 5. RANK ORDERED FACULTY PERCEPTION OF WRITING ASSIGNMENT IMPACT ON CRITICAL-THINKING WRITING

Assignment[a] (n)	Very Effective	Effective	Neither	Ineffective	Very Ineffective	Difference: Faculty/ Student Perception
Papers (20)	65%	35%	0%	0%	0%	7%
Projects (13)	31%	69%	0%	0%	0%	32%
Weekly Synthesizing (13)	31%	69%	0%	0%	0%	32%
Weekly Journal (5)	0%	100%	0%	0%	0%	58%
Weekly In-class (17)	24%	59%	18%	0%	0%	15%
Weekly Lecture Response (18)	28%	50%	17%	6%	0%	18%
Online Discussions (8)	0%	75%	13%	0%	13%	33%

Note. Percentages not necessarily 100% due to rounding.
[a]Ranked order of faculty perceptions of impact from combined values of Very Effective plus Effective ratings.

264

either effective or very effective at positively affecting critical-thinking writing; however, not all faculty used all of the assignments listed. Faculty perception of assignment effectiveness was consistent with the notion that faculty do not use assignments they perceive to be ineffective, thus contributing to the variability in the number of faculty reporting on their use of different assignments. Paper assignments were perceived as having a very effective impact on critical-thinking writing by 65% of faculty.

Significant differences occurred in the perception by students and faculty of the effectiveness of assignments with respect to critical-thinking writing. A comparison of Tables 4 and 5 indicates that faculty clearly have a more positive perception of the impact of assignments on students' critical-writing skills than do students. For both groups, however, and particularly for students, written papers stand out from all the other assignments as very effective or effective in changing perceived competencies.

CONCLUSIONS

Our research leads to several general conclusions. Students consistently felt, for instance, that their critical-thinking writing had been positively affected by both instructional strategies and assignments, especially by the former. Faculty perceptions of student critical-thinking writing validated these improvements. However, students perceived that they demonstrated higher levels of critical-thinking writing both initially and at the end of their course-related experiences than did the faculty. Faculty perceived greater improvement in student critical-thinking writing as a result of the four-course sequence than did students, but faculty also perceived students to be less effective critical-thinking writers both at the start of the sequence and at its conclusion. An intriguing implication of this finding is that students may ascribe a significant degree of their critical-thinking writing ability to themselves, attributing their effectiveness to their own critical-thinking writing competency. Walker reports similarly that "students took more credit for their learning than they gave to faculty" (54). Both students and faculty attributed a significant degree of student critical-thinking writing improvement to their personal contributions to and experiences of the instruction and assignments, a result that is consistent with the self-serving bias concept, i.e., the tendency to perceive oneself as responsible for positive outcomes (Roese and Olson). However, students do perceive feedback on their writing to be a crucial tool for improving their critical-thinking writing.

Students who described themselves as being less effective critical-thinking writers at the beginning of the sequence reported the most improvement across all instructional strategies, whereas students initially reporting the most critical-thinking writing competence claimed to have improved the least. By contrast, faculty reported that the students they perceived to be more effective critical-thinking writers at the beginning of the sequence demonstrated the most improvement in critical-thinking writing. Perhaps students, unlike faculty, may perceive a ceiling effect with respect to their potential for improvement in critical-thinking writing; students may implicitly identify a finite goal that limits their critical-thinking writing outcomes while faculty may perceive a potentially unlimited outcome and focus more on process than product.

Another important conclusion reflects the influences of instructional strategies on students' critical-thinking writing. Students and faculty identified the same four teaching strategies as being most effective: written feedback, the act of writing, oral feedback, and revising papers. Thus, instructional strategies that can be described as active, extended, and elaborated are perceived to be the most effective by both students and faculty.

Faculty perceived all of these strategies to be more effective than students did and significantly more effective at the "very effective" level (Tables 2 and 3). Here, faculty perceived two strategies, the act of writing and instructor oral feedback, to have the most effective impacts on students' critical-thinking writing. The two strategies that students perceived to be the most effective were written feedback and revision. Thus, students appear to privilege faculty input as an influence on their critical-thinking writing while faculty appear to recognize the students' role in their own improvement.

Our findings suggest that the most elaborative and complex assignments are perceived to improve critical-thinking writing in contrast to content-oriented assignments that assess completion of reading assignments or monitor lecture attendance. Students and faculty perceived three assignments—papers, projects, and weekly synthesizing writing—to have the most positive impact on critical-thinking writing. Faculty perceived all assignments to be more effective than students did, especially at the "very effective" level (Tables 4 and 5). Faculty appear to assume that all assignments have the potential to improve critical-thinking writing outcomes whereas students appear to distinguish between assignments by clearly identifying a difference in their impact on critical-thinking writing improvement. Significantly, students perceive assignments that include feedback and require revision to be more effective at improving critical-thinking writing.

The results of our study indicate that both students and faculty perceived the four-course sequence to have a positive and significant impact on student critical-thinking writing, even with the relatively unsystematic teaching strategies that result from different instructors and assignments in the sequence. According to Condon and Kelly-Riley's research, greater improvement in student critical-thinking writing would likely result from intentionally planning and implementing instruction, including assignments designed specifically to accomplish the critical thinking goals and objectives of the sequence. What we have learned from our research is the necessity of paying closer attention to feedback strategies and the revision process as they affect critical-thinking writing.

REFERENCES

Association of American Colleges and Universities. 2013. *Employers More Interested in Critical Thinking and Problem Solving Than College Major*. Retrieved from <http://www.aacu.org/press_room/press_releases/2013/leapcompactandemployersurvey.cfm>

—. 2010. "Written Communication VALUE Rubric." Retrieved from <https://www.aacu.org/value/rubrics/written-communication>

Bennett, Douglas C. 2001. "Assessing Quality in Higher Education." *Liberal Education,* 87 (2). Retrieved from <http://www.aacu.org/liberaleducation/le-sp01/le-sp01bennett2.cfm>

Condon, William, and Diane Kelly-Riley. 2004. "Assessing and Teaching What We Value: The Relationship between College-Level Writing and Critical Thinking Abilities." *Assessing Writing,* 9: 56–75.

Flower, Linda, and John R. Hayes. 1981. "A Cognitive Process Theory of Writing." *College Composition and Communication,* 32 (4): 365–87. Retrieved from <http://links.jstor.org/sici?sici=0010-096X%28198112%2932%3A4%3C365%3AACPTOW%3E2.0.CO%3B2-A>

Kovac, Jeffrey. 2003. "Writing as Thinking." *Annals of the New York Academy of Science,* 988: 233–38.

Menary, Richard. 2007. "Writing as Thinking." *Language Sciences,* 29: 621–32.

Moskovitz, C. (2011). "The Duke Reader Project: Engaging the University Community in Undergraduate Writing Instruction." *Liberal Education,*

97 (3/4). <https://www.aacu.org/publications-research/periodicals/duke-reader-project-engaging-university-community-undergraduate>

Oatley, Keith, and Maja Djikic. 2008. "Writing as Thinking." *Review of General Psychology,* 12 (1): 9–27.

Roese, Neal J., and James M. Olson. 2007. "Better, Stronger, Faster: Self-serving Judgment, Affect Regulation, and the Optimal Vigilance Hypothesis." *Perspective on Psychological Science,* 2 (2): 124–41.

Walker, Paul. 2008. "What Do Students Think They (Should) Learn at College? Student Perceptions of Essential Learning Outcomes." *Journal of the Scholarship of Teaching and Learning,* 8 (1): 45–60.

_____

The authors may be contacted at

mark.haggerty@maine.edu.

APPENDIX

Assignment Descriptions

1. Weekly in-class writing: Free writes discussing text/s.

2. Weekly lecture responses: Descriptive/analytical essays discussing lectures.

3. Weekly journaling: Reflective writing on readings, class discussions and lectures.

4. Weekly writings: Focused analytical synthesis of text/s and lectures.

5. Online discussions: Online (email) interactions extending classroom discussions.

6. Papers: Extended reflective/analytical essays (5 to 20 pages); typically at least two papers per semester.

7. Projects: Creative work, such as videos, plays, artwork, poetry, typically supplemented with brief written statements explaining/analyzing the creative product.