

University of California, Irvine

**2012 Assessment of
Upper-Division Writing at UCI**

January 2013
Natalie B. Schonfeld
Division of Undergraduate Education

Introduction

This report presents the findings from the Summer 2012 Assessment of Upper-Division Writing at UCI. A random sample of papers produced in Business 191W and Nursing 179W were collected in Spring 2012 and assessed to determine the quality of student writing achieved through completion of the upper-division writing requirement at UCI. Differences as a function of course as well as student characteristics were examined.

Key Findings

The analysis of upper-division student writing products found that students are able to demonstrate some evidence of writing achievement that would be expected in fulfillment of the upper-division writing requirement. Overall, the assessed student papers were most effective in their ability to demonstrate their writing skills related to the use of language and style conventions and weakest in their ability to demonstrate critical thinking and analysis through their writing.

Observable, and generally statistically significant, differences in writing quality were observed between upper-division courses, with papers produced in Nursing 179W being stronger in all four categories of the Upper-Division Writing Assessment Rubric. This assessment effort, like its predecessors, confirms the need for continued discussion about the goals of upper-division writing across disciplines and the communication of writing and research expectations through the nature and scope of writing assignments and activities provided to students in upper-division writing courses. For the third year now, no significant differences have emerged in writing quality as a function of enrollment status; only 10% of the papers assessed in 2012 however were produced by transfer students. For the first time in the assessment of upper-division writing products at UCI, significant differences in upper-division writing quality emerged as a function of students' language background. The Upper-Division Writing Assessment Rubric was found to be a reliable tool overall.

Overall, this assessment effort continues to confirm the complexity of defining the shared writing skills and techniques across disciplines, the distinctive nature of writing in the more professionally-oriented disciplines, and the need for writing assignments that provide students with the opportunity to practice, achieve, and demonstrate the writing skills and abilities delineated within the Upper-Division Writing Assessment Rubric.

Assessment Design

The Campus Writing Coordinator sought to build upon the last four years of assessment efforts concerned with the quality of upper-division writing products by focusing on the writing produced in Business and Nursing in Summer 2012. As has been the case since 2008, through the review of writing products produced in Business and Nursing, the 2012 assessment sought to answer the following questions:

- Writing Rubric: Does the Upper-Division Writing Assessment Rubric capture both the shared and unique disciplinary writing skills and techniques? Is the rubric a reliable instrument?
- Student Writing Skills: What is the quality of student writing produced in fulfillment of the upper-division writing requirement? Are there differences in the quality of student writing as a function of the upper-division writing course?

- Student Background and Writing: Does the quality of student writing vary by student's language background? Does writing quality differ as a result of students' enrollment status?

The Upper-Division Writing Assessment Rubric

The Upper-Division Writing Assessment Rubric is comprised of four writing traits, each of which is associated with four levels of quality.

Table 1: Upper-Division Writing Assessment Rubric

Category 1: Critical Thinking & Analysis	Category 2: Use of Evidence/Research
<p>3: Proficient: The approach to the assigned topic of study is insightful, and/or creative, persuasive, unique, and worth developing; the level of thinking/analysis is strong; the ideas are clearly communicated with focus and specificity; the topic is considered/addressed from several facets or perspectives; the writer understands discipline-specific methods for producing knowledge; the content is tailored to the disciplinary audience.</p> <p>2: Satisfactory: The approach is acceptable, reasonable, thoughtful; the level of thinking/analysis is appropriate; the ideas offered are generally specific and focused, some are insightful, usually communicated clearly; the writer shows an awareness of other facets or perspectives; the writer seems to understand the disciplinary discourse and has taken some care in including content appropriate to the disciplinary audience.</p> <p>1: Some: The approach is occasionally adequate; some evidence of thinking/analysis, or an attempt at analysis, is evident; the ideas offered are intermittently delineated, thought-through, and appropriate to the task; the writer attempts to show awareness of at least one other facet or perspective; the writer sporadically shows awareness of the disciplinary discourse and includes content that is relevant to the disciplinary audience.</p> <p>0: Insufficient: The approach is inadequate or confusing; little or no evidence of critical thinking and analysis are evident; although some of the ideas may be worthwhile, the level of insight and clarity of presentation are lacking; the writer does not take into account other facets or perspectives, or does so in an inappropriate or simplistic manner; the thinking lacks focus and clarity, illustrates misconceptions; little or no evidence of awareness of the disciplinary audience.</p>	<p>3: Proficient: Uses evidence/sources appropriately and effectively, with a clear understanding of the disciplinary audience's expectations; considers (if appropriate) the previous knowledge generated within the discipline (e.g., literature review); evidence/sources used help develop and exemplify the overall argument/purpose of the writer; evidence/sources, including data tables or other visuals, are clearly and accurately represented and smoothly integrated into writer's argument/purpose.</p> <p>2: Satisfactory: Generally uses evidence/sources appropriately and effectively, with understanding of the disciplinary audience's expectations; shows awareness (if appropriate) of the previous knowledge generated within the discipline (e.g., literature review); evidence/sources used generally contribute to the overall argument/purpose of the writer; evidence/sources are usually represented accurately and with clarity; evidence/sources, including data tables or other visuals, are often well integrated into writer's argument/purpose (writer controls the ideas, the sources do not).</p> <p>1: Some: Evidence/sources have occasionally been used appropriately, and intermittently further the writer's purpose/argument; some evidence of disciplinary expectations for sources/research are evident; evidence/sources are presented with some degree of clarity, with some misreading or simplistic reading; the evidence/sources, including data tables or other visuals, may overwhelm the writer's own voice and purpose; evidence/sources are inconsistently integrated into the prose.</p> <p>0: Insufficient: Evidence/sources, if present at all, are used inappropriately, simplistically, or misreading is evident; the writing shows little or no evidence of the writer's understanding of the discipline's expectations for presenting evidence and using sources; evidence/sources, including data tables or other visuals, are mismatched with the writer's purpose within the prose.</p>

Table 1: Upper-Division Writing Assessment Rubric (continued)

Category 3: Development & Structure	Category 4: Language & Style Conventions
<p>3: Proficient: The prose clearly reflects the genre/discipline’s methods of organizing written discourse; the organization is apparent, coherent, and contributes to the overall goals; the insightful, specific, focused development of the main purpose/thesis is effectively organized in paragraphs or sections (as appropriate to the genre/discipline); sophisticated transitional devices help to develop one idea from the previous one or identify their logical relations; the reader is effortlessly guided through the writer’s chain of reasoning or progression of ideas.</p> <p>2: Satisfactory: The prose generally illustrates the writer’s understanding of the genre/discipline’s methods of organizing written discourse; the organization is usually apparent, coherent, and contributes to the overall goals; the development of ideas is generally insightful, specific and focused, following a logical progression; appropriate transitions connect the ideas and show relations between them; the reader is guided through the writer’s chain of reasoning or progression of ideas.</p> <p>1: Some: The prose sporadically illustrates the writer’s understanding of the genre/discipline’s methods of organizing written discourse; the organization is intermittently apparent, coherent, and on occasion, contributes to the overall goals; the development of ideas is somewhat insightful, specific, focused, and logical; transitional devices are inconsistently employed to connect the ideas; the reader can occasionally follow the writer’s chain of reasoning or progression of ideas.</p> <p>0: Insufficient: The prose does not clearly illustrate the writer’s understanding of the genre/discipline’s methods of organizing written discourse; organization is random, simplistic or inappropriately sequential, and rarely (if ever) contributes to the overall goals; little or no development of ideas is evident, with limited insight, focus or logic; the writing has little or no internal coherence, using few or inappropriate transitional devices; the reader has difficulty following the writer’s chain of reasoning or progression of ideas.</p>	<p>3: Proficient: The writing is styled and eloquent, with an easy flow, rhythm, and cadence; sentences have clear purpose and varied structure; sentences and paragraphing show skill with a wide range of rhetorical, disciplinary, or generic conventions; the writer chooses words for their precise meanings and uses an appropriate level of specificity, illustrating his/her facility with the discipline’s discourse; mechanics (spelling, punctuation, grammar, usage, and paragraphing) enhance overall readability and purpose; writing free of errors, evidence of careful editing and proofreading. Correct and appropriate use of citation methods for the discipline and genre.</p> <p>2: Satisfactory: The writing is generally appropriately styled and has a flow, rhythm, and cadence; sentences are purposeful and varied in structure; sentences and paragraphing typically show appropriate use of rhetorical, disciplinary, or generic conventions; the writer generally chooses words for their precise meanings and uses an appropriate level of specificity, illustrating his/her understanding of the discipline’s discourse; mechanics (spelling, punctuation, grammar, usage, and paragraphing) contribute to overall purpose; writing is almost free of errors, with evidence of editing and proofreading; limited errors do not detract from readability. Correct and appropriate use of citation methods for the discipline and genre.</p> <p>1: Some: The writing sometimes illustrates aspects of style, rhythm, and cadence appropriate to the discipline/genre; sentences are somewhat varied in structure and occasionally show the writer’s understanding of how to use rhetorical, disciplinary, or generic conventions; the writer sporadically chooses words for their precise meanings and uses some level of specificity; mechanics (spelling, punctuation, grammar, usage, and paragraphing) are sometimes detracting from readability and inconsistently contribute to overall purpose; errors occur, and occasionally detract from readability. Some awareness of citation methods for the discipline and genre.</p> <p>0: Insufficient: The writing illustrates little or no ability to use style, rhythm, and cadence; sentences generally lack purpose, with little or no variety in structure; sentences and paragraphing show a lack of understanding of how to use rhetorical, disciplinary, or generic conventions; word choice is typically inappropriate and generalized, showing a limited understanding of disciplinary discourse; mechanics (spelling, punctuation, grammar, usage, and paragraphing) detract (or rarely contribute to) from readability and overall purpose; errors occur throughout, illustrating an inability to control language or a lack of editing and proofreading. Little or no awareness/presence of citation methods for the discipline and genre.</p>

A random selection of papers produced in Spring Quarter 2012 in Business 191W and Nursing Science 179W were collected for the 2012 Upper Division Writing Assessment Effort.

Six readers, all with significant writing instruction experience and a strong commitment to better understanding the quality of student writing produced through UCI's upper-division writing requirement, assessed the quality of a random sample of writing products produced in 2 different courses. Three of the readers, Emily Brauer, Kat Eason, and Loren Eason serve as instructors for lower-division writing at UCI. A fourth reader, Brook Haley, has served as an instructor for lower-division writing and currently teaches in European Studies at UCI. A fifth reader, Abraham Romney, has served as an instructor for lower-division writing courses at UCI and currently serves as a writing fellow with the Office of the Campus Writing Coordinator. A sixth reader, Daniel Gross, is a professor of English and serves as the Director of the Composition Program at UCI. All six readers have participated in multiple writing assessment efforts at UCI.

In preparation for the 2012 Upper-Division Writing Assessment, the Campus Writing Coordinator communicated with faculty from Nursing and Business to discuss the four writing categories contained within the rubric and their respective discipline-specific writing expectations. In preparation for the assessment of upper-division writing, Jonathan Alexander reviewed papers produced in both of these courses and selected 4 papers reflecting both a range of writing quality based on the rubric's categories and the distinctive nature of writing as a function of these disciplines.

The first morning of the assessment, Jonathan Alexander initiated a group discussion of the projects' history and goals, a review and discussion of the upper-division writing assessment rubric, and the distinctive nature of academic writing as a function of its disciplinary frame. The Business and Nursing faculty who taught the upper-division writing courses from which the papers assessed were collected participated in the morning discussion and shared the writing expectations for their respective disciplines with the readers. Following this discussion, the readers assessed four sample papers and discussed the quality scores assigned to each of the papers in order to increase group consensus on the elements that constitute achievement of the four writing categories contained within the Upper-Division Writing Rubric.

After the training session on the morning of September 13, 2012, readers were divided into 2 reading teams, with all members of a given team reading the same set of papers. All papers were read by three readers, with each individual reader assigning a score for each writing trait contained within the rubric. As papers were scored, Natalie Schonfeld monitored and tabulated the results.

Table 2 displays the reliability coefficients for both the individual writing categories and the overall quality scores, by course and for all upper-division writing products assessed for this project. The overall reliability coefficients for all upper-division writing papers and for each of the courses suggest that the rubric has moderate to high overall reliability. In reviewing the reliability coefficients by course, the findings suggest that the Upper-Division Writing Assessment Rubric is more reliable in its ability to capture the writing quality of Business 191W papers than Nursing 179W papers. When reviewing the

reliability coefficients by writing category, the values suggest that the rubric is most reliable in its ability to capture students' ability to demonstrate the use of language and style conventions and least reliable in its ability to capture students' ability to organize their writing as captured by the development and structure category. Similar results were observed in 2011 related to the reliability of the results for the development and structure category.

Table 2: Alpha Reliability Coefficient Values by Rubric Category and Overall

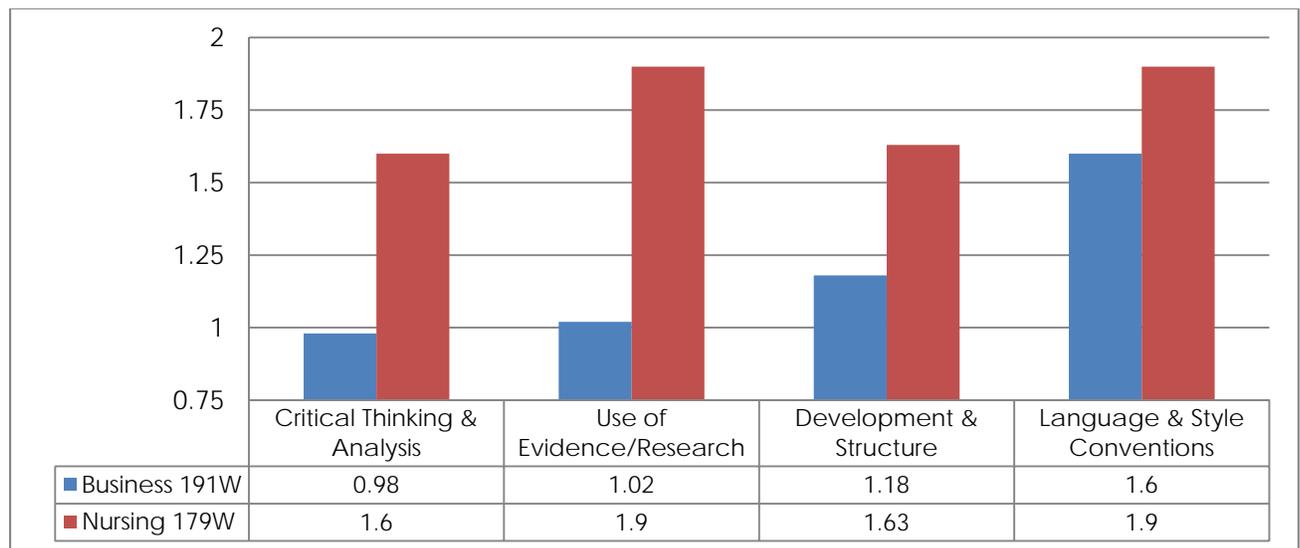
	Category 1: <i>Critical Thinking & Analysis</i>	Category 2: Use of <i>Evidence & Research</i>	Category 3: <i>Development & Structure</i>	Category 4: <i>Language & Style Conventions</i>	OVERALL
Business 191W (n=20)	.538	.399	.614	.591	.610
Nursing 179W (n=20)	.473	.466	.096	.549	.497
ALL PAPERS (n=40)	.605	.624	.489	.570	.638

At the conclusion of the Upper Division Writing Assessment, all readers were asked to provide feedback about this assessment experience and the Upper-Division Writing Assessment Rubric. Much of the discussion with the readers upon completion of the assessment of upper-division writing papers centered around the relationship between evidence and critical thinking. Many of the readers commented that the quality of the sources used by the writers significantly impacted the quality of analysis students were able to demonstrate through their writing.

Student Writing Skills

The upper-division writing quality results, as defined by the Upper-Division Writing Assessment Rubric, are presented in Graph 1.

Graph 1: Upper-Division Writing Assessment Results



The assessment found the Nursing 179W papers to be noticeably stronger in all four categories contained within the Upper-Division Writing Assessment. All papers, regardless of course, were strongest in the language and styles conventions category. An ANOVA was performed to determine if the observed differences in writing quality by upper-division writing course were significant. The level of significance selected for this analysis was $p < .05$. The results, presented in Table 3, show there are significant differences in the quality of student writing both by writing category and overall as a function of course. The differences in quality scores for all categories with the exception of the language and style conventions category, and overall were found to be statistically significant.

Table 3: Comparison of Mean Assessment Scores by Upper-Division Writing Course

	Nursing 179W (n=20)	Business 191W(n=20)	ALL PAPERS (n=40)
Critical Thinking & Analysis**	1.6	.98	1.29
Use of Evidence/ Research**	1.9	1.02	1.46
Development & Structure*	1.63	1.18	1.41
Language & Style Conventions	1.90	1.6	1.75
OVERALL SCORE **	7.03	4.78	5.91

** $p < .01$, * $p < .05$

The quality of the papers assessed in 2012 was fairly low. As displayed in Table 4, 35% of the Nursing papers and 10% of the Business papers assessed were found to be satisfactory in their ability to demonstrate achievement of the four writing categories. More alarming, 45% of the Business papers assessed were found to be insufficient in their ability to demonstrate achievement of the four writing categories.

Table 4: Upper Division Assessment Score Distribution by Writing Category

Quality Scores by Category	1	2	3	4	OVERALL
Nursing 179W (20 papers, 60 reads)					
Insufficient (0-.99)	2 (10%)			1 (5%)	
Some (1-1.99)	8 (40%)	11 (55%)	10 (50%)	8 (40%)	13 (65%)
Satisfactory (2-2.99)	10 (50%)	9 (45%)	10 (50%)	11 (55%)	7 (35%)
Proficient (3)					
Business 191W (20 papers, 60 reads)					
Insufficient (0-.99)	9 (45%)	10 (50%)	8 (40%)	3 (15%)	9 (45%)
Some (1-1.99)	8 (40%)	8 (40%)	9 (45%)	9 (45%)	9 (45%)
Satisfactory (2-2.99)	3 (15%)	2 (10%)	3 (15%)	8 (40%)	2 (10%)
Proficient (3)					

^a Category 1 is "Critical Thinking and Analysis"; Category 2 is "Use of Evidence/Research"; Category 3 is "Development and Structure"; Category 4 is "Language and Style Conventions".

While the findings suggest that most students are able to demonstrate some evidence of the writing achievement expected in fulfillment of the upper-division writing requirement, few demonstrate satisfactory or proficient achievement of writing as defined by the Upper-Division Writing Assessment Rubric. Overall, the upper-division writing papers were strongest in the area of language and style conventions and lowest in the area of critical thinking and analysis. Significant differences were observed in the quality of writing students produced as a function of their upper-division writing course, with papers produced in Business 191W being least successful in their ability to demonstrate achievement of the writing categories contained in the Upper-Division Writing Assessment Rubric. These results point to the need to consider the structure and scope of the writing assignments provided to students and the degree to which assignments allow and require students to both achieve and demonstrate the level of writing expected upon completion of the upper-division writing requirement. As noted by the readers at the conclusion of the assessment, there is an important connection between evidence/sources and critical thinking and analysis.

Student Background and Writing

In order to better understand the writing quality demonstrated through the sample of Business and Nursing papers assessed in 2012, data about students' enrollment and language background was collected and analyzed. As displayed in Table 5, the majority of papers assessed, overall and by course, were produced by direct entrants from high school.

Table 5: Enrollment Status by Upper-Division Writing Course

Enrollment Status	High School	Transfer
Business 191W (n=20)	19 (95%)	1 (5%)
Nursing 179W (n=20)**	16 (94%)	1 (6%)
All Papers	35 (95%)	2 (5%)

**The other three students are post-baccalaureate students and, as a result, were excluded from the analysis.

Table 6 shows that the majority papers assessed in 2012 were produced by students from households where English and another language or only another language was spoken.

Table 6: Language Status by Upper Division Writing Course

Language Status	English Only	English & Another Language/Another Language Only
Business 191W (n=20)	7 (35%)	13 (65%)
Nursing 179W (n=20)**	10 (53%)	9 (47%)
All Papers	17 (44%)	22 (56%)

**missing language data

An analysis of variance was performed to identify the effects of enrollment status, and language status, respectively, on the four individual writing categories and the overall writing assessment scores. The level of significance selected for these analyses was $p < .05$. As displayed in Table 7, the analysis of variance results found no significant differences in writing quality as a function of enrollment status.

In contrast, significant differences emerged in writing quality as a function of language background. Papers produced by students from English-only households had significantly higher assessment scores in three of the four writing categories and overall. Though papers produced by students from English-only households have consistently achieved higher assessment scores since the first upper-division writing assessment project in 2008, 2012 marks the first time significant differences in writing quality as a function of language background have emerged.

Table 7: Mean Writing Assessment Values as a Function of Enrollment and Language Status

<u>Mean Writing Assessment Values and Enrollment Status</u>	High School	Transfer
Critical Thinking & Analysis	1.25	.83
Use of Evidence/ Research	1.4	1.17
Development & Structure	1.37	1.17
Language & Style Conventions	1.73	1
OVERALL SCORE	5.75	4.17
<u>Mean Writing Assessment Values and Language Status</u>	English Only	English & Another/ Another Only
Critical Thinking & Analysis	1.51	1.12
Use of Evidence/ Research*	1.76	1.23
Development & Structure **	1.71	1.19
Language & Style Conventions*	1.98	1.59
OVERALL SCORE *	6.96	5.14

** $p < .01$, * $p < .05$

Conclusions and Recommendations

The 2012 Upper-Division Writing Assessment was designed to: (1) assess the ability of the Upper-Division Writing Assessment Rubric to reliably capture shared and unique disciplinary writing skills and techniques, (2) assess the quality of student writing produced in upper-division writing courses, and (3) determine whether students' language background and transfer vs. high school status impact writing quality. The Upper-Division Writing Assessment Rubric proved to be a useful tool for assessing the quality of upper-division writing produced in Business and Nursing. While the rubric was found to have moderate to high overall reliability, improvements to the development and structure category will strengthen its ability to effectively capture the quality of student writing produced in upper-division writing courses across disciplinary genres. The review of student writing showed that students are able to demonstrate some

evidence of writing achievement that would be expected in fulfillment of the upper-division writing requirement. The papers were consistently strongest in the use of language and style conventions, with 22% of the papers demonstrating satisfactory evidence of achievement of all four writing categories.

Significant differences in writing quality were observed between upper-division courses, with papers produced in Nursing 179W being stronger in all four categories of the Upper-Division Writing Assessment Rubric. Overall, the papers for this project were weakest in the critical thinking and analysis category. These results are consistent with all previous Upper-Division Writing Assessment Efforts, and point to the complexity of developing, capturing and demonstrating critical thinking and analysis in writing. No meaningful differences were observed in the writing quality produced by students as a function of their enrollment status though significant differences emerged in writing quality as a function of language background. Papers produced by students from English-only backgrounds were significantly stronger in their assessment scores in three of the four writing categories and overall.

In light of these findings, the following recommendations emerge:

There is great value in the distinctiveness of upper-division writing courses as a result of the unique approaches to writing that exist by discipline. At the same time, there are shared expectations of what writing skills students should be able to demonstrate upon completion of the upper-division writing requirement. It is critical that faculty teaching upper-division writing achieve clarity around the upper-division writing expectations and provide students with writing instruction and assignments that provide students with the opportunity to learn, practice, achieve, and demonstrate the writing skills and abilities reflected by the Upper-Division Writing Assessment Rubric.

Five years' worth of upper-division writing assessment efforts have made evident both the relationships and overlaps between the four writing categories contained within the Upper-Division Writing Rubric. The readers have consistently noted the interactive nature of the critical thinking and evidence/research categories. For the past two years, the reliability scores for the development and structure category point to the need for further refinements to better capture writing expectations.

While significant differences in the quality of writing produced by students as a result of their enrollment status emerged in the first two years' worth of upper-division assessment efforts, no such differences have been observed since. Because of our interest and commitment to understanding what students are able to demonstrate through their writing, and the impact, if any, of enrollment status as the UCI transfer population continues to grow, it is recommended that writing quality as a function of students' enrollment status continue to be monitored in future writing assessment projects.

Since 2008, students from English-only households have achieved higher, though not statistically significant, writing assessment scores. For the first time, statistically significant differences emerged in writing quality as a function of students' language background. As the number of international students attending UCI grows, it will become increasingly important to consider how language background impacts students' ability to

demonstrate the quality of writing expected upon completion of UCI's upper-division writing requirement.