

Undergraduate Research Writing in Political Science

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ABSTRACT

In recent years, educators across academia have become weary about the writing skills of incoming undergraduates. While much of the research in this area has focused on general writing skills, there is much work to be done in the assessment of field-specific writing instruction. While most universities have a highly structured writing program for first year students, such courses are usually designed to accommodate students across academic disciplines. Such instruction is necessary for many incoming college students, but there is generally little instruction given on the particulars of research writing in specific disciplines.

Using survey data, our study assesses the research writing skills of undergraduates enrolled in political science courses at the University of Connecticut. Our findings suggest that both high school preparation and college writing-intensive courses are strongly correlated with research writing skills and student confidence. This study is a valuable addition to the literature on writing instruction in academia, and is of particular interest to educators in political science and other social sciences.

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In recent years, educators across academia have become weary about the research and writing skills of incoming undergraduates. While much of the research in this area has focused on general writing skills, there is much work to be done in the assessment of field-specific writing instruction. While many universities have a highly structured writing program for first year students, such courses are usually designed to accommodate students across academic disciplines. Such instruction is necessary for many incoming college students, but there is generally little instruction given on the particulars of research writing in specific disciplines (Ford and Perry, 1982). However, the impact of writing intensive courses and other such programs on students' research writing in political science courses is unclear.

Using survey data collected from over nine hundred undergraduates enrolled in political science courses at the University of Connecticut, our study assesses the writing skills of undergraduates. Our findings suggest that both high school preparation and college writing courses are positively correlated with students' self-assessments of their research writing.

This study is a valuable addition to the literature on writing instruction in academia, and is of particular interest to educators in political science and other social sciences. Our original surveys provide a helpful framework for university departments and administrations to evaluate the strengths and weaknesses of their undergraduate curriculum.

In recent years there has been a growing literature on both research and writing in political science and other disciplines. These studies have generally been quite focused, covering such areas as undergraduate methodology instruction (Thies and Hogan 2005), the use of the internet in research (Dilevko and Gottlieb 2002; Barberio 2004; Robinson and Schlegl 2005), and writing instruction in political science courses (Clifford 2001; Sherman and Waismel-

Manor 2003). Changes in technology and university writing course requirements have furthered scholars' interest

There is a general concern among college instructors that student's research writing abilities may be on the decline. Raimes (1980) recognized this trend, citing large classes, heavy teaching loads, and pressure to publish as growing deterrents to focused writing instruction on the part of university faculty. Problems associated with undergraduate writing such as plagiarism and poorly-written papers can further discourage faculty from emphasizing writing in their courses (Grauerholz 1999, 310). While very few undergraduates will ever become political scientists, it is still important to assess the writing skills of students and to isolate which factors, if any, contribute to students' writing skills.

The purpose of this study is to determine if there are correlations between students' writing instruction and, by examining their self-assessments, any correlation with their confidence in the research writing process. We examine a number of factors, including high school preparation, general writing aptitude, and the amount of research writing instruction that students have had at the university level.

The First Survey

Data and Methods

We conducted two surveys in various political science classes at the University of Connecticut in April and November of 2006. A copy of each survey is included in the appendix of this paper. The total number of respondents for the April survey was 607, which represents a considerable portion of students in political science classes at the University. The November survey had 381 respondents.

The first survey is broken into four parts. The first section focused on students' background information. This includes basic information such as age, year, and major. For the purposes of our analysis, we coded major under three categories: political science, humanities or social science, and other. We also asked students for both their overall and major GPA.

The second section of the survey is an assessment of the student's background. We asked respondents for their high school type (Public, Private, Parochial), the number of AP classes they had in high school, and their SAT verbal scores. We also asked respondents to assess how well their high school English courses prepared them for college writing. Finally, we asked students about their current employment status and how many hours per week that they work.

The third section of the survey was designed to assess students' writing experience. We asked students if they had taken UConn's freshman English course and what grade they received. We also asked respondents how many writing-intensive classes they had taken, and their grades in those courses. Finally, we asked students to assess how confident they were in their abilities as a writer on a five-point scale (1. Not Confident; 2. Below Average; 3 Average; 4 Somewhat confident; 5 Confident). We then asked students to fill out a self-assessment of their writing skills on a scale of one to five (1 Poor; 2 Below Average; 3 Average, 4 Above Average, 5 Extremely Well). These included Hypothesis Formation, Thesis Formation, Argument and Grammar, to name a few (a full list is shown in Tables 1 and 2).

The final section of the survey focuses on respondents' research skills. Based on their personal experience and the reviews of their professors, students are asked to assess their confidence as a researcher on the same five-point scale used to their confidence in writing assessment explained above. We then asked students to assess their confidence with using various research materials on a five-point scale (1 Don't Know How; 2 Never; 3 rarely; 4

Somewhat Often; 5 Often). These include online search engines, books, journals, and public opinion polls.

Results

In this study, we examine the relationship between various factors and respondents' self-assessment in research and writing. We use eight variables to score students preparation for college research writing: year, number of AP classes taken, if students took AP English, SAT verbal scores, if students took UConn's freshmen English course, number of writing-intensive courses taken in college, and respondent's overall assessment of the level of their high school writing preparation. We then correlated each of these variables with a number of responses on aspects of the research and writing process. The Pearson correlation results are listed in Tables 1 and 2.

For the first variable, year, we had no significant findings. This suggests that despite the possibility of improvement as a student progresses through their undergraduate career, there is no clear relationship to the research writing process. The second variable, GPA, is highly correlated with the self-assessment scores in almost every case. This is an expected result, given that one would assume that students with higher grades are better writers (and visa versa).

For the next two variables – number of AP classes taken and whether or not students took AP English – the results are rather interesting. While both variables are significantly correlated with several of the self-assessment measures, it is interesting to note the number of AP courses taken in high school is significant in several more areas than for those who took AP English. This suggests that advanced placement courses in general, and not AP English in particular, are strongly correlated with student's self-assessments.

Two variables address the freshmen writing courses at the University. The first simply asks if students have taken or are currently enrolled in freshmen English. For this variable, there are only five significant correlations with the writing assessment. However, when we look at grades in freshmen English, this is correlated with ten of the self-assessment measures. Again, as was the case with GPA, these findings are to be expected.

The results for writing-intensive courses are quite intriguing. The number of writing-intensive courses taken is significantly correlated with all but two of the self-assessment scores (and it was the only variable correlated with using Microfiche). This suggests that writing-intensive instruction may be particularly effective in improving students' research writing skills and confidence levels. Finally, respondents' overall level of high school preparation is significantly correlated with all but three of the self-assessment scores. This suggests, as expected, that students who enter college with better research writing skills have a distinct advantage.

Perhaps the most interesting results from this study have to do with the students' usage of various research sources. If you look at Table 2, you will note that there is a great deal of positive correlation between students who have higher grades, SAT scores, and levels of writing preparation are more likely to use library books, academic journals, and newspapers. However, for all the variables tested in these correlations, none of them are significantly correlated with using online search engines. This suggests that students with more research writing instruction rely other than (or at least in addition to) Google.

Table 1

	Writing confidence	Hypothesis Formation	Thesis Formation	Finding Sources	Intro	Body	Conclusion	Structure	Argument	Paper Flow
Year	.014	.041	-.003	.043	-.002	-.020	.019	-.023	-.007	.023
Estimated Overall GPA	.231**	.226**	.217**	.173**	.152**	.195**	.208**	.245**	.203**	.246**
Number of AP classes taken	.233**	.189**	0.201**	.124**	.127**	.198**	.148**	.194**	.209**	.215**
If so, did you take AP English?	.219**	.112*	.155**	.016	0.11*	.144	.062	.136	.140	.196
Estimated SAT Verbal	.333**	.244**	.298**	.051	.145**	.267**	.179**	.231**	.296**	.245**
Taken Freshmen English?	.075	.088*	.131**	.053	.073	0.094*	.078	0.107**	.030	.072
Grade in Freshmen English	.248**	.141**	.155**	.143**	.106*	.140**	.141**	.154**	.118*	.159**
Number of W-classes taken	.16**	.106*	.095*	.121**	.090*	.121**	.171**	.087*	.106*	.149**
Level of High School Prep	.460**	.320**	.377**	.198**	.323**	.347**	.293**	.315**	.375**	.354**

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Table 2

	Citations	Grammar/ Sentences	Research Confidence	Search engines	Library Books	Academic Journals	Newspapers	Microfiche	Interviews	Opinion Polls
Year	.048	-.019	.060	-.046	.051	.112	.022	.122	.066	.074
Estimated Overall GPA	.149**	.170**	.196**	-.073	.190**	.172**	.121**	.029	-.007	.032
Number of AP classes taken	.123**	.240**	.148**	-.036	.225**	.096*	.075	.010	-.005	.001
If so, did you take AP English?	.058	.167	.068	.014	.178	.106	.073	.009	.021	.019
Estimated SAT Verbal	.069	.239**	.143**	-.031	.247**	.101*	.083	.024	.028	.044
Taken Freshmen English?	0.09*	.058	.083	-.038	.056	.055	.048	-.007	.016	.056
Grade in Freshmen English	.094	0.111*	.145*	.079	.231**	.209**	.112*	.035	.060	.063
Number of W-classes taken	.112**	.007	.175**	-.079	.138**	.213**	.104*	.133**	.082*	.105*
Level of High School Prep	.286**	.296**	.308**	.059	.181**	.121**	.194**	.038	.074	.095*

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

The Second Survey

Data and Methods

While our first survey provided some interesting results, we decided to conduct a second survey the following semester. We had two goals in our second attempt. First, we wanted see if the results from the first could be replicated. Second, we added some additional variables that were not included in the first survey. The total number of respondents for the second survey was 381 – slightly down from the previous semester, but certainly an adequate sample for our purposes.

For the most part, the second survey is very similar to the first (a copy of the second survey is also included in the appendix). However, we wanted to examine additional variables. First, we included a gender variable to investigate any possible relationship between gender and aspects of the research writing process. Second, we examined any possible differences between political science majors and non-majors. Third, we examined various means of research writing assistance (meeting with professors, peer review, visiting the university W-Center, etc.). Finally, included variables for students who took AP Government in high school and also differentiated between students who have had writing-intensive classes in political science and writing-intensive classes in other disciplines.

Results

Our first goal in conducting the second survey was to compare our results with those from the previous semester. The Pearson correlation results for this survey are listed in Tables 3, 4, and 5. In our first survey, we found no significant correlations between students' year and our measurements of research writing. For this survey, we found that year was significant in a few

cases, but all in all the results remain constant. It is interesting to note that Year is negatively correlated with peer review and visits to the Writing Center. This could be the result of increased efforts by the university to utilize the writing center over the past two years.

For the second variable, overall GPA, the results are quite similar to the first survey. We find that GPA, as expected, is highly correlated with our measures across the board. It is worth noting that GPA is not correlated with any of the variables in Table 5. The next group of variables looks at AP classes. Again, we find that the number of AP classes taken is a particularly significant and positively correlated variable (twelve in all - including Microfiche). Students who have had AP English were positively correlated with five variables in these results, the most notable of which is writing confidence. These results are consistent with the findings from the first survey. Finally, in this survey we included a variable for AP government, but this was not significantly correlated with any of our indicators. Again, these results suggest that a focus on AP classes in general is more important than the two specific fields examined in this study. As was the case in the first survey, students' SAT verbal scores were highly correlated with a wide range of indicators. For students who have taken the university's freshmen writing course, our results were similar to those of the first survey. Again, we found students' grades in freshman writing were highly correlated with our indicators.

The number of writing-intensive courses was again highly significant across a variety of indicators. This further supports our finding from the first survey suggesting that students with more writing intensive instruction have higher self-assessment scores in research writing. It is worth noting, however, that this variable was not significantly correlated with as many indicators in the second survey.

Table 3

	Writing Confidence	Thesis	Finding Sources	Intro	Body	Conclusion	Argument	Transitions	Citations	Grammar
Gender (Female=1; Male=0)	-.020	-.039	-.055	-.090	-.068	-.025	-.073	.060	.100	.091
Year	.119*	.171**	.109*	.017	.089	.041	.066	.084	.087	.007
Political Science Major (Yes=1; No=0)	.117	.044	.037	.048	.072	.000	.095	-.004	.010	-.038
Estimated Overall GPA	.246**	.238**	.159**	.165**	.192**	.262**	.199**	.210**	.187**	.146**
Number of AP classes taken	.161**	.153**	.095	.093	.101	.081	.115*	.150**	.146**	.168**
If so, did you take AP English?	.123*	.037	.066	.118*	.058	.160**	.072	.084	-.026	.115*
Did you take AP Government	-.071	.074	.008	.051	.055	.016	.002	.078	-.052	-.038
Estimated SAT Verbal	.284**	.219**	.054	.194**	.244**	.197**	.244**	.267**	.072	.230**
High School Preparation	.471**	.271**	.188**	.238**	.347**	.254**	.235**	.286**	.274**	.372**
Taken Freshman English?	.044	.061	-.052	-.033	.015	-.004	-.012	.048	.025	.080
Grade in Freshmen English	.495**	.376**	.264**	.307**	.395**	.360**	.271**	.298**	.299**	.196**
Number of W-Classes taken	.194**	.217**	.108	.085	.112*	.144**	.087	.102	.100	.018
Average Paper Grade	.571**	.398**	.250**	.436**	.386**	.505**	.383**	.360**	.262**	.319**

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Table 4

	Research	Search	Online	Library	Academic	News-	Microfiche	Interviews	Opinion
	Confidence	Engines	Encyclop.	Books	Journals	papers			Polls
Gender (Female=1; Male=0)	-.013	.078	.075	.101	.153**	.134*	.001	.087	.019
Year	.215**	.067	.011	.028	.195**	.190**	.047	.055	.052
Political Science Major (Yes=1; No=0)	.091	.014	-.059	.033	.091	.190**	-.042	.033	.155**
Estimated Overall GPA	.294**	-.014	-.034	.116*	.163**	.084	.109	.100	.114*
Number of AP classes taken	.101	.071	.108	.135*	.153**	.132*	.122*	.161**	.055
If so, did you take AP English?	.080	.077	.038	.084	.072	.063	.105	.172**	.102
Did you take AP Government	.026	-.055	-.052	.029	-.001	.029	.108	.051	.090
Estimated SAT Verbal	.087	.119*	.161**	.130*	.093	.124*	.192**	.133*	.073
High School Preparation	.328**	-.019	.070	.150**	.082	.192**	.146**	.096	.103
Taken Freshman English?	-.028	-.063	.016	.006	-.057	-.067	.041	-.046	-.056
Grade in Freshmen English	.390**	-.032	-.003	.130*	.134*	.192**	.043	.051	.121
Number of W-Classes taken	.151**	.037	-.029	.057	.189**	.125*	.027	.107	.024
Average Paper Grade	.458**	.106	.060	.099	.219**	.169**	.002	.159**	.159**

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Table 5

	Met w/ Professors	Peer Review	Peer Rev. Helpful	Visited W-Center	W-Center Suggested	W-Center Location
Gender (Female=1; Male=0)	.124*	.123*	.105	-.058	.051	-.035
Year	.096	-.167**	-.114	-.151**	-.179**	-.003
Political Science Major (Yes=1; No=0)	.026	-.085	-.083	-.071	-.096	-.029
Estimated Overall GPA	.073	.089	-.064	-.071	.019	-.108
Number of AP classes taken	.009	.112*	.025	-.059	.013	-.070
If so, did you take AP English?	-.065	.059	.099	-.059	.014	.008
Did you take AP Government	.021	-0.055	.011	-0.048	-.080	-.081
Estimated SAT Verbal	-.108	.017	-.062	.180**	.180**	-.035
High School Preparation	-.048	-.020	.123	-.005	.181**	-.027
Taken Freshman English?	.008	.105	-.025	.040	.158**	-.023
Grade in Freshmen English	.023	-.059	-.028	-.087	.077	-.125*
Number of W-Classes taken	.140*	-.098	-.103	-.115*	-.116*	-.028
Average Paper Grade	.054	-.059	-.043	-.077	.124*	-.024

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

The second survey included three new variables: gender, major and average paper grade. For the first variable, gender, we found that women were more likely than men to use academic journals and newspaper articles in their research. Also, women were more likely than men to meet with professors or participate in peer review sessions. As for political science majors as opposed to non-majors, there were few noticeable differences. However, political science majors are more likely to use newspapers or public opinion polls than non-majors. These findings are certainly to be expected (and welcomed).

Discussion

While this study is quite preliminary in nature, it produces some interesting results. The correlations between research writing skills and high school preparation are to be expected, as well as standardized test scores. However, correlations with writing intensive courses are of more interest here. This supports the notion that writing-intensive instruction is an effective way to improve students' research writing skills. Further studies should investigate more field-specific issues, but since this study investigates students in political science courses, these findings shed some light on the research writing skills of our undergraduates.

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Appendix A: Survey from April 2006

Undergraduate Survey

General Information (please circle or fill in the appropriate information)

Age: _____

Year: Freshman Sophomore Junior Senior Grad

Major: _____

GPA in Major: _____

Expected Grade in Course: _____

Estimated Overall GPA: _____

Do you live on Campus: Yes No

Student: Full-Time, Part-time, Non-Degree, Graduate

Are you registered to the class you are taking this survey in? Yes No

Have you taken this survey before? Yes No

Background Information (Please circle or fill in the appropriate information):

High School Type: Public Private Parochial

Number of AP classes taken: 0 1-2 3-4 5+

If so, did you take AP English? Yes No

Estimated SAT Verbal: _____

How well do you feel your H.S. English class prepared you for writing in college?
Poorly Below Average Average Above Average Extremely well

How many hours a week do you spend on extracurricular activities (work not included):
1-3, 4-6, 7-9, 10+

Do you have a job: Yes No

If yes where: On campus Off Campus

How many hours a week do you spend at work: 1-3, 4-6, 7-9, 10+

Writing Experience (Circle One):

Have you taken Freshman English: Yes No Presently enrolled

What grade did you receive (or expect if currently enrolled): A B C D F

How many W classes have you taken: None 1 2 3 or more

If taken what grade did you receive (or expect if currently enrolled): A B C D F

How confident are you in your abilities as a writer?

Not confident Below Average Average Somewhat Confident Very Confident

Self Assessment (Please answer honestly):

	<u>Poor</u>	<u>Below Average</u>	<u>Average</u>	<u>Above Average</u>	<u>Extremely well</u>
Hypothesis Formation	1	2	3	4	5
Thesis Formation	1	2	3	4	5
Finding Sources	1	2	3	4	5
Introduction	1	2	3	4	5
Body	1	2	3	4	5
Conclusion	1	2	3	4	5
Paper Structure	1	2	3	4	5
Making an Argument	1	2	3	4	5
Overall Paper Flow	1	2	3	4	5
Citations	1	2	3	4	5
Grammar/Sentence Structure	1	2	3	4	5

Based on a combination of your personal and professor's evaluation of your papers-
How confident are you in your ability to do research?

Not confident Below Average Average Somewhat Confident Very Confident

When you conduct research how often do you use the following sources?

	<u>Don't Know How</u>	<u>Never</u>	<u>Rarely</u>	<u>Somewhat often</u>	<u>Often</u>
Online search engines(Google, etc)	1	2	3	4	5
Library Books	1	2	3	4	5
Academic Journals	1	2	3	4	5
Newspapers (online or in print)	1	2	3	4	5
Microfiche	1	2	3	4	5
Conducted Interviews	1	2	3	4	5
Public Opinion Polls	1	2	3	4	5

Did you attend the "Writing in Political Science Workshop" held this spring? Yes No

Have you been to one of the Campus Writing Centers? Yes No

Has your teacher suggested you go to a Campus Writing Center? Yes No

Do you know the location of at least one of the Campus Writing Centers? Yes No

Appendix B: Survey from November 2006

Undergraduate Survey

General Information (please circle or fill in the appropriate information)

Age: _____

Gender: _____

Year: Freshman Sophomore Junior Senior Grad

Political Science Major: Yes No

Estimated Overall GPA: _____

Are you registered to the class you are taking this survey in? Yes No

Have you taken this survey in a class this year? Yes No

Background Information (Please circle or fill in the appropriate information):

Number of AP classes taken in High School: 0 1 2 3 4 5+

If so, did you take AP English? Yes No

Did you take AP Government? Yes No

Estimated SAT Verbal: _____

How well do you feel your H.S. English class prepared you for writing in college?
Poorly Below Average Average Above Average Extremely well

Writing Experience (Circle One):

Have you taken Freshman English: Yes No Presently enrolled Placed Out

What grade did you receive (or expect if currently enrolled): _____

How many W classes have you taken: None 1 2 3 or more

	Political Science Class? (circle one)	Grade (write in)
W class 1	Yes No	
W class 2	Yes No	
W class 3	Yes No	

Please estimate your average paper grade: _____

How confident are you in your abilities as a writer?

Not confident Below Average Average Somewhat Confident Very Confident

Undergraduate Survey

Self Assessment (Please answer honestly):

	Poor	Below Average	Average	Above Average	Extremely well
Thesis Formation	1	2	3	4	5
Finding Sources	1	2	3	4	5
Introduction	1	2	3	4	5
Body	1	2	3	4	5
Conclusion	1	2	3	4	5
Making an Argument	1	2	3	4	5
Transitions	1	2	3	4	5
Citations	1	2	3	4	5
Grammar/Sentence Structure	1	2	3	4	5

How often have you met with your professor to discuss your writing?

Never Rarely Somewhat often Often

Have you participated in a class with student/peer review of your writing? Yes No

If so, how helpful did you find the student/peer review to improving your writing?

Not helpful Somewhat helpful Very helpful

Have you been to one of the Campus Writing Centers? Yes No

Has your teacher suggested you go to a Campus Writing Center? Yes No

Do you know the location of at least one of the Campus Writing Centers? Yes No

Based on a combination of your personal and professor's evaluation of your papers-
How confident are you in your ability to do research?

Not confident Below Average Average Somewhat Confident Very Confident

When you conduct research how often do you use the following sources?

	Don't Know How	Never	Rarely	Somewhat often	Often
Online search engines(Google, etc)	1	2	3	4	5
Online Encyclopedia (Wikipedia, etc)	1	2	3	4	5
Library Books	1	2	3	4	5
Academic Journals	1	2	3	4	5
Newspapers (online or in print)	1	2	3	4	5
Microfiche	1	2	3	4	5
Conducted Interviews	1	2	3	4	5
Public Opinion Polls	1	2	3	4	5