


Undergraduate Psychological Writing: A Best Practices Guide and National Survey

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Abstract

There is no comprehensive guide for teaching psychological writing, and little is known about how often instructors teach the topic. We present a best practices guide for teaching psychological writing beyond just American Psychological Association style, discuss psychology-specific writing assignments, and examine psychological writing instruction. In an online survey, 177 psychology instructors across the United States reported on psychological writing instruction and their writing assignments. In general, we found that instructors reported using many best practices. Comparisons between courses revealed that instructors use course-specific writing instruction such that it becomes progressively complex across courses. However, instructors might not provide students with enough training to successfully complete assignments. Instructors assign diverse assignments, though, suggesting that students get varied practice at psychology-specific writing.

Keywords

writing practices, teaching writing, psychology-specific writing, writing survey

The development of psychological writing skills is valuable for undergraduate psychology students; the American Psychological Association (APA, 2013) includes “written communication” as a learning outcome for undergraduate education. According to Madigan, Johnson, and Linton (1995), studying the conventions of psychological writing helps students learn the attitudes and values of psychology. Working on psychological writing skills has helped students improve critical analysis, retention, and comprehension skills (Drabick, Weisburg, Paul, & Bubier, 2007; Madinger & Brosamer, 1990; Nevid, Pastva, & McClelland, 2012; Stewart, Myers, & Culley, 2010). Depending on the type of assignment, students learn to apply concepts in the real world, develop their own perspectives, or use evidence to support their claims (Bensley & Haynes, 1995; Wade, 1995; Waller, 1994).

Writing for psychology (as opposed to general writing) is a specialized skill that should be addressed in psychology classes by those who have the most experience using and understanding it (Spiegel, Cameron, Evans, & Nodine, 1980). Several studies have shown that discipline-specific writing instruction leads to significant improvements compared to general writing instruction or independently learning a writing style (Carstens, 2011; Limke, Holloway, & Knight, 2011). As instructors teach students about psychology-specific writing, they may discover that students possess a wide range of writing expertise. Instructors must then decide how best to help students who may not have mastered general writing skills taught in a college English course.

A wealth of information is available to instructors interested in strengthening students’ psychological writing skills.

Psychology journals frequently publish articles on how to improve student writing, the journal *Teaching of Psychology* devoted an entire issue to this topic in 1990. Instructors have published descriptions of courses, activities, and assignments (e.g., Ault, 1991; Brender, 1982; Goddard, 2003). However, the wide variety may deter instructors from searching, collecting, and deciphering the numerous articles to determine the best practices. Advice ranges from requiring students to take a course devoted to psychological writing (Calhoun & Selby, 1979) to infusing this skill across all psychology courses (Spiegel et al., 1980). The level of supporting evidence also varies from reflections on the authors’ own classes (e.g., Blevins-Knabe, 1987) to data from quasi-experiments with pre- and post-interventions (e.g., Bensley & Hayes, 1995). Supplemental books (e.g., Beins & Beins, 2012; Miller, 2014; Mitchell, Jolley, & O’Shea, 2013) aimed at students can be a valuable resource; however, they are not written as guides for instructors to teach psychological writing and may include suggestions that are not based on empirical research.

Taken together, these considerations would suggest that a comprehensive review and compilation of previous research on the topic could make it easier for instructors to use the

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information. Although an abundance of information is available, no common themes or overarching suggestions arise in the literature. Thus, the first aim of this article was to review the literature on teaching psychological writing as well as provide examples of psychology-specific writing assignments. We note how one teaches writing differs if the goal is for students write like a psychologist or advance their understanding of course material through writing. In this article, we consider aspects related to the first goal that students may struggle with.

Our second aim was to measure actual practices for teaching psychological writing in light of the suggestions in the literature. Despite the information available on how to teach writing, little is known about whether psychology instructors use these practices. Previous research has examined writing practices of primary school teachers (Cutler & Graham, 2008), college writing practices in general (Melzer, 2014), and faculty attitudes about writing in other majors (Masse & Popovich, 1998; Zhu, 2004), but no study has focused on undergraduate psychology instructors. To address this gap, we administered an online survey to a national sample of psychology instructors on teaching psychological writing. Our questions were based on the best practices that our literature review uncovered. The review of best practices and survey results together highlight areas where instructors excel and can improve in teaching psychological writing.

How to Teach Psychological Writing

One of the main qualities that distinguish psychological writing from writing in other fields is the use of the *Publication Manual of the APA* (2010b). In contrast to other fields, psychology students can turn to the APA manual to learn how to organize and format research papers. It includes not only general information (such as what kind of details to include in a Participants section) but also specific formatting requirements (such as italicizing the name of a journal in a Reference list). Instructors report that students make errors such as incorrectly formatting Method sections and including their opinions in the Results section (Kokliari, Brainerd, & Roy, 2012). However, researchers have found that students given direct instruction on APA style or how to use the APA manual show significant improvements (Fallahi, Wood, Austad, & Fallahi, 2006; Luttrell, Bufkin, Eastman, & Miller, 2010). Although not empirically analyzed, books on psychological writing could be a helpful resource for learning APA style instead of or in addition to the manual (e.g., Beins & Beins, 2012; Miller, 2014; Mitchell et al., 2013). It should be noted, though, that certain assignments (e.g., research papers) might more closely follow APA guidelines than others. Therefore, instructors should decide when students would benefit from learning APA guidelines.

Goddard (2003) suggested that beyond APA formatting requirements, students should also be taught that following APA style leads to an organized paper. For instance, instructors could teach students that subheadings are used more frequently in psychological works than in other fields (Madigan, Johnson, & Linton, 1995). Subheadings organize the writing process,

inform the reader of the section topic, and decrease the need for transitions (Madigan et al., 1995). Another method some instructors teach is to have students think of the structure of their paper as having an hourglass shape (Bem, 2003). Like an hourglass, the introduction is broad, the body narrows to the topic, and then the paper concludes generally. Students often think only of the formatting requirements of APA style as psychological writing, but it is important for instructors to impress upon students that organization is also part of psychological writing. Similar to our caveat about the usage of the manual, we do not suggest that all of the organizational aspects are appropriate for every assignment. Certain aspects of organization, such as subheadings, may be more appropriate for specific assignments (e.g., literature reviews) than others. Instead, instructors should take into account the type of assignment when determining what to teach.

Other subtle characteristics, which relate to language and wording differences, distinguish psychological writing from other types of writing. It is likely that students are not acutely aware of these differences, so instructors should be explicit when teaching these topics. First, psychological writing is scientific, straightforward, and unembellished (Madigan et al., 1995). It also limits use of strong, definitive words and conclusions, compared to the frequent use of hedge words (e.g., *tend*, *suggest*, *may*; Madigan et al., 1995). Hedging acknowledges that several interpretations are possible, that statistical analyses should be interpreted with caution, and that future work could disprove or support current findings; in general, this makes conclusions more palatable to readers. Students struggle with applying the technical and formal tone required; they use colloquial expressions and their own beliefs rather than integrate evidence to support their claims (Kokliari et al., 2012). Therefore, instructors should specifically discuss these details with students. Of course, not all assignments may require a strict scientific tone, but this idea should be addressed for papers that do.

Another characteristic of psychological writing is the use of fewer direct quotations and footnotes but more paraphrasing. Because this characteristic is different from other areas (such as history; Madigan et al., 1995), students may not be used to paraphrasing and may not be able to do it effectively—often-times resulting in unintended plagiarism. Therefore, students should be taught paraphrasing and given paraphrasing practice, so that they are not just rearranging words but are extracting meaning, changing sentence structure, and demonstrating that they understand the material.

It is commonly believed that giving students the opportunity to read psychological works, such as journal articles, strengthens their writing skills (see Price, 1990). It is possible that if students better understood psychological readings, then they might be more likely to write better papers about them. Students can be given a list of questions to answer to focus learning as they read (see Roediger & Gallo, 2001, for questions). The readings can also help teach students the difference between empirical works, meta-analyses, and theoretical pieces. Furthermore, reading primary sources provides students

with concrete examples of in-text citations, subheadings, scientific language, and other writing conventions. In order for students to benefit, instructors should preselect papers to ensure that they follow the current manual. However, it should be noted that previous research has not empirically examined (in the context of psychology courses) whether more reading leads to improved writing.

Soysa, Dunn, Dottolo, Burns-Glover, and Gurung (2013) suggested that when incorporating the above writing practices instructors should do so developmentally. Instead of using a one-size-fits-all approach for each course, instructors should have different goals for the different levels of courses and match their writing instruction to the course level. Specifically, instructors could give less writing instruction to students in introductory psychology and more writing instruction to students in later courses like physiological psychology. For instance, students may be first introduced to paraphrasing in introductory psychology and then be given extensive practice with paraphrasing in research methods. Similarly, students in later courses may be given more information on how to read psychological works than students in an introductory course. It is expected that this approach would enable students to build upon skills learned in earlier courses. However, Soysa et al. noted that although progressively increasing the complexity of writing instruction across courses makes intuitive sense, the benefits of this have not been empirically established.

Types of Psychology Writing Assignments

Once an instructor determines how to teach psychological writing and what should be emphasized, the next step is to create writing assignments. Instructors can create assignments that help students learn to write by practicing the skills discussed in the previous section. Instructors should take many factors into consideration when creating effective writing assignments. For one, instructors should communicate the requirements and central goal of an assignment in both written and verbal instructions to students (Goddard, 2003). Additionally, writing a paper in stages can lessen the perception of the amount of work involved (Goddard, 2003; Limke et al., 2011). Assignments can also be modified for use in class (instead of out of class), which has been shown to improve writing skill, retention, and comprehension (Drabick et al., 2007; Madinger & Brosamer, 1990; Nevid et al., 2012; Stewart et al., 2010). Furthermore, it has been suggested, although not empirically tested, that assignments could be sequenced over the course of students' undergraduate careers, so that certain assignments (e.g., self-reflection) are used in introductory classes and other assignments (e.g., research papers) are used in later classes (Beins, Smith, & Dunn, 2010; Soysa, Dunn, Dottolo, Burns-Glover, & Gurung, 2013). It is likely that sequencing writing assignments will help ease students into the task of writing.

Psychology instructors have many options when they decide which written assignments to include in their courses. Below we include descriptions of psychology-specific writing assignments from our literature review that were found to improve

students' writing. One way to organize the assignments is in ascending order of difficulty. Some have suggested that assignments vary in how challenging they are (Beins et al., 2010; Soysa et al., 2013); however, no one has empirically determined which assignments are more difficult than others. Therefore, rather than present assignments organized by difficulty, we loosely organize assignments around the cognitive learning domain of Bloom's Taxonomy (Bloom, 1956), which outlines different learning outcomes.

We have included only assignments specifically geared toward the four highest levels of the taxonomy (application, analysis, evaluation, and synthesis). First, we discuss application assignments and then we discuss assignments that target the next three skills in the taxonomy. We have combined analysis, evaluation, and synthesis into a category that we call critical thinking because these skills are similar to those discussed by others as constituting critical thinking (Brookfield, 2012; Paul & Elder, 2009; Sternberg, 1989). Additionally, certain assignments have the potential to address the top three levels of the taxonomy within a single assignment, making it cumbersome to tease apart one skill from another.

Application. An application assignment requires students to use concepts learned in class in a specific situation. These assignments create a deeper understanding of the material and help form students' own opinions. When used in conjunction with real-life scenarios, application assignments also give students the opportunity to realize how prevalent psychological concepts are in their life. Instructors use several kinds of application assignments; we highlight *solving a problem*, *case studies*, *observations*, and *self-reflections*.

The first application assignment type is solving a problem, in which students are given a possible real-life situation and must apply their knowledge about psychology to devise a solution. For example, Blevins-Knabe (1987) had students in developmental psychology write about designing a Piagetian teaching method to help a child who is having difficulty learning multiplication. Other assignments could require students to design classrooms based on educational theory or discuss how to motivate employees at a dysfunctional organization. The second type of application assignment is a case study, which is an in-depth analysis of a single person or group. Goddard (2003) first had her Writing in Psychology students watch excerpts from the APA Psychotherapy Videotape series (2010a) as if they were therapists and then prepare a case study about the fictional client. Students wrote about the client's background, described her problem, summarized therapy sessions, and made recommendations on future therapy sessions based on the course.

A third type of application assignment is the observation paper, in which students identify psychological phenomena in real-world situations. For example, Rickabaugh (1993) had introductory psychology students collect data about excuses their friends made and then apply their knowledge of attribution theory to determine the root of the excuses. Students' papers discussed their observations, evaluated the relevant

psychological theory, and compared their findings to theoretical predictions. The fourth type of application assignment is a structured self-reflection in which students compare whether phenomenon discussed in textbooks matches their experiences. Depending on the goals of the assignment, self-reflection papers can be designed to challenge students by requiring them to use evidence to support their explanations rather than solely relying on their own ideas. For instance, Brender (1982) had students keep a log of occurrences that they thought were interesting throughout the semester. In students' final paper, they used psychological terminology to identify each occurrence and applied a theoretical framework to explain the reasons behind the events. Although similar to the observation paper, the self-reflection paper requires students to apply concepts to their own lives, whereas the observation paper requires students to apply concepts to the world around them.

Critical thinking. Critical thinking papers require students to analyze and evaluate sources of information (as well as interrelationships between multiple sources) and synthesize new ideas about an area. At the critical thinking level, students can reach conclusions on their own after examining information in depth, discern patterns across different informational sources to create an original piece and evaluate evidence based on reasoned argument. As previously discussed, our critical thinking category combines the three highest level cognitive skills from Bloom's taxonomy (Bloom, 1956): analysis, synthesis, and evaluation. The four critical thinking assignments that we discuss are *research papers*, *study critiques*, *reaction papers*, and *compare and contrast papers*.

The first type of critical thinking assignment is the research paper, which includes literature reviews, research proposals, and empirical reports. Many authors have published articles that include research papers as one of their assignments for their courses (e.g., Goddard, 2003; Limke et al., 2011; Luttrell et al., 2010). Students must analyze past research and discuss why their ideas improve on previous ones or show how their study will expand either our theoretical or practical understanding. With this paper, students not only become knowledgeable about a topic but also may analyze multiple previously unrelated areas of research or resolve a highly debated issue (Olson, Carson, & Meyersburg, 2009). Research papers can also require students to evaluate the strengths and weaknesses of previous research.

Several authors have discussed their success with introductory psychology and writing for psychology students reading and then writing study critiques of empirical articles (e.g., Garesis, 1995; Limke et al., 2011; Price, 1990). Study critiques can promote critical thinking by asking whether the study goals in the introduction are significant, evaluating the validity of the method, questioning the technique used to analyze the data, examining whether the authors and students' interpretation of the data match, and determining whether the authors have misleading underlying assumptions (Roediger & Gallo, 2001; Wade, 1995). In introductory psychology, for example, students found the original publication of a study described in

their textbook (Garesis, 1995). Their papers included a summary, critical analysis, links between the study and course concepts, and an evaluation of the textbook's description of the study.

A third critical thinking assignment is the reaction paper, in which students respond to questions or a prompt that incorporates course readings. For instance, students in Psychology of Women have been asked to explain the relationship between gender perceptions and career earnings (Stewart et al., 2010). Students could analyze readings to make one point and clearly evaluate how their interpretations of the readings support it. A fourth possible assignment is a compare and contrast paper in which students must analyze how two or more topics, such as two codes of ethics (Peden & Carroll, 2008), are similar and different. This assignment involves students moving between the various sources and the paper itself. If ideas conflict, students could synthesize possible explanations for the conflict.

The Current Study

As can be seen, a review of the literature yields many recommendations and ideas for teaching and assigning writing within psychology. However, the literature gives less insight into the question of how much instructors actually use different teaching methods. Therefore, the goal of the current study is to determine what methods instructors actually use in psychology classrooms. We surveyed a national sample of psychology instructors on how they teach psychological writing (focusing on the points discussed above) as well as which psychological writing assignments they typically include.

Method

Participants

To obtain a national sample of psychology instructors, we first made a list of every college on the website www.collegestats.org. This site describes itself as "an informational website, which aggregates publicly available information provided by the U.S. Department of Education (<http://nces.ed.gov>) from the 2013 school year." At the time of data collection, the website listed 4,409 U.S. colleges. Of these colleges, we next randomly sampled 441 schools (approximately 10% of the national total) that had psychology programs. Third, we randomly sampled two instructors from the list of all psychology instructors for each program, unless the school employed only one psychology instructor. Thus, a total of 855 potential participants received invitations to participate in this study.

Of those who started the survey, only 12 respondents were removed because they did not teach undergraduate classes or because they did not complete farther than the first question. Very few participants (3.39%) did not complete the survey in its entirety, and these few completed at least half of the survey. This resulted in an overall sample size of 177 respondents (representing a response rate of approximately 21%).

The sample was primarily female (64%), Caucasian (76%), and had been teaching for an average of 17.28 years ($SD = 10.84$).

Table 1. Means and Standard Deviations for Teaching Writing Attitudes by Course Categories.

Survey Statement	Overall	Introductory	Topics	Methods	<i>F</i>	Partial η^2
1 Writing is a very important skill for psychologists	4.78 (0.46)	4.63 (0.60) ^{a,b}	4.88 (0.33) ^a	4.93 (0.28) ^b	$F(2, 139) = 5.74, p = .004$	.077
2 It is my responsibility to teach writing to students	4.10 (0.95)	3.69 (1.08) ^{a,b}	4.12 (0.94) ^a	4.52 (0.70) ^b	$F(2, 139) = 6.87, p = .001$	.090
3 I feel comfortable teaching students how to write	3.95 (0.84)	3.55 (1.04) ^a	4.11 (0.66) ^a	4.00 (0.73)	$F(2, 139) = 6.65, p = .002$	.087
4 I enjoy teaching writing	3.40 (1.02)	3.16 (1.12)	3.56 (0.95)	3.11 (1.09)	$F(2, 139) = 2.86, p = .061$	.040

^aSignificant difference between introductory and topics. ^bSignificant difference between introductory and methods. ^cSignificant difference between topics and methods course categories using Tukey's honestly significant difference procedure, $p < .05$.

Eighty-five percent of the sample reported that their highest degree obtained was a doctor of philosophy. In order to participate in the survey, respondents must have indicated that they currently teach undergraduate psychology students. Although the largest group of respondents reported teaching at undergraduate-only institutions (46%), respondents from undergraduate-and-graduate institutions (36%) as well as community colleges (17%) were represented in this sample. Instructors of every level were represented: 9% were instructors/lecturers, 26% were assistant professors, 28% were associate professors, and 35% were full professors. Finally, although most of the sample reported primarily teaching face-to-face classes (77%), some reported teaching an equal mix of face-to-face and online classes (15%), and a smaller group reported primarily teaching online classes (4%).

Participants were instructed to respond to the survey questions for one particular undergraduate class they taught. In an open-ended question, they listed this class. Responses were grouped into one of three categories: introduction to psychology, a specific psychology topic (e.g., clinical psychology, social psychology, industrial-organizational psychology), or methods (i.e., research methods or statistics); 27.7% of the sample reported that they responded to the survey about an introductory class, 37.3% responded about a topics course, and 15.3% responded about a methods course (19.8% left this question blank). This categorization is based on content area similarity (instead of the level of the course, such as "first year" or "senior level," which was not asked). Within the course reported on, instructors required a wide range of written assignments (0–20), but the average was 5.56 ($SD = 4.46$).

Procedure

Respondents received an e-mail inviting them to participate in the survey and a follow-up e-mail sent 2 weeks later. They received no compensation for participation. First, participants considered 15 statements about how they teach psychological writing. The first 4 items addressed their attitudes (see Table 1); on the 5-point Likert-type scales, lower numbers indicated lower agreement with the statement (*strongly disagree, disagree, neither agree nor disagree, agree, strongly agree*). The next 6 items addressed types of instruction (see Table 2,

Items 1–6), and the final 5 items addressed the inclusion of research resources (see Table 2, Lines 7–11); on the 5-point Likert-type scales, lower numbers indicated lower inclusion of the instruction technique (*never, rarely, sometimes, often, all the time*). After this, participants indicated how frequently they included each type of writing assignment in their psychology courses: applications and critical thinking (see Table 2, Lines 12–19, for assignments; the same 5-point Likert-type scale was used as for the inclusion of instruction frequency questions). They also reported how much time they spent teaching writing (using a 4-point Likert-type scale; *no time, very little time, some time, a lot of time*). After these questions, we asked the open-ended question "Do you believe psychological writing is different from general writing?" Finally, they provided demographic information. After respondents completed the survey they were thanked for their participation.

Results

Although instructors perceived some similarities between the two writing styles, 92% of the sample indicated (in the open-ended question) that they are different. Many believed psychological writing had distinguishing characteristics; one instructor wrote, "Psychological writing . . . has very specific requirements that students often struggle to learn." Many of the responses also included using APA style as a unique feature of psychological writing as well as the suggestion that psychological writing must be scientific, technical, precise, and concise. For instance, "General writing allows for creative and flowery phrasing."

Overall, no one disagreed with the statement "Writing is a very important skill for psychologists." However, faculty across the different categories of classes generally differed in their attitudes about teaching writing (see Table 1 for *F* values and a detailed breakdown of responses). Analyses of variance (ANOVAs) were conducted on participants' responses to detect significant differences between the groups for this and all subsequent analyses; ANOVAs were followed by post hoc comparisons using Tukey's honestly significant difference to control for experiment-wise error rates ($p < .05$). In general, introductory instructors felt writing was less important, they felt less comfortable teaching it, and they felt less responsibility

Table 2. Means and Standard Deviations for Teaching Psychological Writing and Assignments by Course Categories.

Survey Statement	Overall	Introductory	Topics	Methods	<i>F</i>	Partial η^2
1 Provide instruction on APA style	3.90 (1.15)	3.57 (1.43) ^a	3.86 (1.15)	4.41 (0.64) ^a	$F(2, 139) = 4.35, p = .015$	.059
2 Provide instruction on the APA manual	2.66 (1.22)	2.31 (1.29)	2.80 (1.25)	2.96 (1.02)	$F(2, 138) = 3.42, p = .039$	.046
3 Require students to read the APA manual	2.31 (1.23)	1.82 (1.03) ^{a,b}	2.39 (1.26) ^b	2.59 (1.31) ^a	$F(2, 139) = 4.77, p = .010$	.064
4 Provide instruction on scientific writing	3.69 (1.09)	3.24 (1.28) ^a	3.74 (1.09)	4.30 (0.72) ^a	$F(2, 139) = 8.12, p < .001$	.105
5 Require students to practice paraphrasing	3.28 (1.28)	3.20 (1.27)	3.26 (1.37)	3.52 (1.19)	$F(2, 139) = .54, p = .58$	.008
6 Provide instruction about different types of sources	3.34 (1.12)	3.06 (1.35) ^a	3.39 (1.11)	3.81 (0.83) ^a	$F(2, 139) = 3.78, p = .025$	.052
7 Require students to read research sources	4.17 (0.90)	3.71 (1.21) ^{a,b}	4.32 (0.68) ^b	4.44 (0.58) ^a	$F(2, 139) = 8.59, p = .000$	.110
8 Require students to find their own sources	4.09 (1.01)	3.71 (1.28) ^{a,b}	4.18 (0.94) ^b	4.33 (0.68) ^a	$F(2, 139) = 4.16, p = .018$	.056
9 Require students to use evidence as support	4.16 (1.02)	3.47 (1.39) ^{a,b}	4.44 (0.66) ^b	4.56 (0.58) ^a	$F(2, 139) = 17.54, p < .001$	.202
10 Provide instruction on how to read sources	3.59 (1.06)	3.39 (1.27) ^a	3.47 (1.04) ^c	4.15 (0.72) ^{a,c}	$F(2, 139) = 4.87, p = .009$	.065
11 Provide questions to answer when reading	3.31 (1.29)	2.88 (1.27) ^{a,b}	3.59 (1.24) ^b	3.85 (1.26) ^a	$F(2, 139) = 6.77, p = .002$	.089
12 Self-reflection	3.37 (1.28)	3.53 (1.36)	3.45 (1.28)	3.19 (1.04)	$F(2, 139) = 0.67, p = .512$	.010
13 Solve a problem	2.92 (1.25)	2.73 (1.41)	3.08 (1.27)	2.85 (0.99)	$F(2, 139) = 1.05, p = .353$	.015
14 Observation	2.64 (1.27)	2.51 (1.45)	2.79 (1.17)	2.67 (1.18)	$F(2, 139) = .669, p = .514$	.010
15 Case study	2.14 (1.26)	1.96 (1.32)	2.33 (1.24)	1.96 (1.29)	$F(2, 139) = 1.49, p = .227$	.021
16 Research paper	3.73 (1.22)	3.39 (1.43)	3.71 (1.25)	4.11 (.97)	$F(2, 139) = 2.87, p = .06$	.040
17 Reaction paper	3.26 (1.27)	3.18 (1.32)	3.35 (1.36)	3.15 (1.06)	$F(2, 139) = .34, p = .714$	.005
18 Study critique	3.13 (1.20)	2.73 (1.26) ^a	3.27 (1.25)	3.48 (1.01) ^a	$F(2, 139) = 4.22, p = .017$	.057
19 Compare and contrast	2.71 (1.23)	2.49 (1.34)	2.94 (1.26)	2.52 (1.09)	$F(2, 139) = 2.10, p = .127$	.029

Note. APA = American Psychological Association.

^aSignificant difference between introductory and methods. ^bSignificant difference between introductory and topics. ^cSignificance difference between topics and methods course categories using Tukey's honestly significant difference procedure.

to teach it than the other instructors. Respondents did not differ significantly in how much they enjoyed teaching writing across the three categories of classes, although it is notable that only 52.9% of the overall sample “agreed” or “strongly agreed” with the statement that they enjoyed teaching writing.

Psychological Writing

Responses to statements about teaching psychological writing differed across the three categories of classes. In particular, introductory instructors were significantly less likely to provide instruction on APA style, require students to read the APA manual, provide instruction on scientific writing, and provide instruction about different types of sources than methods instructors, and they were less likely to require students to read the APA manual than topics instructors (see Table 2, Lines 1–6). Introductory instructors also reported spending significantly less time teaching writing than methods instructors, $F(2, 141) = 3.24, p = .042$, partial $\eta^2 = .045$ (the mean of topics instructors was between these two, but the differences were not significant). The amount of time spent teaching writing was correlated with particular teaching practices, but the pattern of correlations slightly differed depending on class category. For introductory instructors (see Table 3, Lines 2–7) and topics

instructors (Table 4, Lines 2–7), the amount of time spent teaching writing was significantly positively correlated with all six teaching practices. However, for methods instructors, only three of the six correlations were significant (see Table 5, Lines 2–7).

Writing Assignments

Respondents generally incorporated research requirements into their assignments, but as has been the pattern, the likelihood of endorsing these statements differed depending on the course category. Introductory instructors were less likely to incorporate research into assignments than the other instructors (all six of these statements were significantly lower for introductory instructors; see Table 2, Lines 7–11). Methods instructors required fewer assignments ($M = 3.65$) than topics instructors ($M = 6.97$), $F(2, 65) = 3.16, p = .049$, partial $\eta^2 = .091$ (the mean of introductory instructors, 5.02, was between these two, but the differences were not significant). The amount of time spent teaching writing did correlate with the statements about assignments, but the pattern of correlations slightly differed depending on class category. Four of the five correlations were significant for introductory instructors (see Table 3, Lines 8–12), and they were all significant for topics instructors

Table 3. Study Variable Correlations for Introductory Psychology Course Instructors.

Survey Statement	1	2	3	4	5	6	7	8	9	10	11
1. Amount of time spent teaching writing											
2. Provide instruction on APA style	.62***										
3. Provide instruction on the APA manual	.51***	.50***									
4. Require students to read the APA manual	.40**	.47**	.72***								
5. Provide instruction on scientific writing	.68***	.59***	.40**	.38**							
6. Require students to practice paraphrasing	.32*	.48***	.13	.17	.34*						
7. Provide instruction about different types of sources	.54***	.59***	.30*	.22	.53***	.37**					
8. Require students to read research sources	.49***	.63***	.36*	.29*	.46**	.47**	.50***				
9. Require students to find their own sources	.55***	.69***	.48***	.42**	.55***	.45**	.57***	.77***			
10. Require students to use evidence as support	.38**	.45**	.31*	.21	.45**	.46**	.39**	.52***	.51***		
11. Provide instruction on how to read sources	.61***	.74***	.34*	.23	.54***	.46**	.86***	.64***	.67***	.40**	
12. Provide questions to answer when reading	.15	.22	.01	-.05	.16	.38**	.29*	.30*	.26	.53***	.33*

Note. APA = American Psychological Association.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4. Study Variable Correlations for Topics Course Instructors.

Survey Statement	1	2	3	4	5	6	7	8	9	10	11
1. Amount of time spent teaching writing											
2. Provide instruction on APA style	.45***										
3. Provide instruction on the APA manual	.33**	.59***									
4. Require students to read the APA manual	.43***	.48***	.69***								
5. Provide instruction on scientific writing	.57***	.69***	.34**	.46***							
6. Require students to practice paraphrasing	.39**	.15	.06	.29*	.30*						
7. Provide instruction about different types of sources	.43***	.47***	.28*	.34**	.47***	.14					
8. Require students to read research sources	.45***	.23	.20	.23	.32**	.12	.52***				
9. Require students to find their own sources	.30*	.12	.16	.16	.11	.13	.34**	.43***			
10. Require students to use evidence as support	.41**	.47***	.20	.29*	.44***	.20	.37**	.51***	.24		
11. Provide instruction on how to read sources	.43***	.47***	.25*	.35**	.48***	.11	.54***	.41**	.23	.48***	
12. Provide questions to answer when reading	.58***	.32*	.20	.14	.25*	.24*	.39**	.25*	.12	.15	.34**

Note. APA = American Psychological Association.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5. Study Variable Correlations for Methods Course Instructors.

Survey Statement	1	2	3	4	5	6	7	8	9	10	11
1. Amount of time spent teaching writing											
2. Provide instruction on APA style	.30										
3. Provide instruction on the APA manual	.51**	.20									
4. Require students to read the APA manual	.42*	.25	.51**								
5. Provide instruction on scientific writing	.38*	.65***	.22	.30							
6. Require students to practice paraphrasing	.34	.32	.37	.34	.44*						
7. Provide instruction about different types of sources	.28	.51**	.26	.21	.41*	.26					
8. Require students to read research sources	.46*	.43*	.16	.25	.50**	.32	.18				
9. Require students to find their own sources	.29	.48*	.13	.12	.73***	.35	.39*	.49**			
10. Require students to use evidence as support	.06	.20	.04	.21	.42*	.18	.22	.39*	.39*		
11. Provide instruction on how to read sources	.40*	.37	.27	.11	.43*	.27	.24	.58**	.37	.17	
12. Provide questions to answer when reading	.24	.32	.18	-.09	.56**	.46*	.38	.15	.33	.17	.45*

Note. APA = American Psychological Association.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6. Means and Standard Deviations for Teaching Writing Attitudes by Institute Type.

Survey Statement	Community College	Undergraduate Only	Undergraduate and Graduate	<i>F</i>	Partial η^2
1 Writing is a very important skill for psychologists	4.72 (0.46)	4.82 (0.42)	4.75 (0.51)	$F(2, 165) = 0.65, p = .525$	.008
2 It is my responsibility to teach writing to students	3.53 (1.09) ^{a,b}	4.27 (0.83) ^a	4.20 (0.90) ^b	$F(2, 165) = 7.76, p = .001$	.086
3 I feel comfortable teaching students how to write	3.79 (0.94)	3.95 (0.82)	4.03 (0.85)	$F(2, 165) = 0.78, p = .457$	.009
4 I enjoy teaching writing	3.48 (1.06)	3.33 (1.03)	3.46 (1.03)	$F(2, 165) = 0.35, p = .70$	.004

^aSignificant difference between community college and undergraduate only institutes. ^bSignificant difference between community college and undergraduate only institutes using Tukey's honestly significant difference procedure.

(see Table 4, Lines 8–12). However, for methods instructors, only two of the correlations were significant (see Table 5, Lines 8–12). The number of assignments given in a course was not significantly correlated with the amount of time devoted to writing instruction, $p = .52$.

To determine how often specific assignment types were used in courses, respondents indicated how often they included each type in their classes. Combining the different application assignments revealed that 63.8% of the sample assigned at least one application paper; the most commonly reported was the self-reflection paper, followed by the solve a problem paper, observation paper, and finally the case study (Table 2, Lines 12–15). The use of application-based assignments did not significantly differ across the three course categories.

Critical thinking papers were more common than application papers; 96.5% of the sample assigned at least one critical thinking paper. The most commonly used critical thinking assignment was the research paper, followed by the reaction paper, study critique, and finally the compare and contrast paper (Table 2, Lines 16–19). Introductory instructors were less likely to assign study critiques than methods instructors, but the use of all other assignments did not differ significantly across the three course categories.

Individual Differences

We collected demographic information and analyzed whether different types of participants responded differently. There were no differences across job titles (i.e., instructor, assistant professor, associate professor, and full professor) for 10 of the 12 statements. We did not analyze differences between those who primarily teach face-to-face versus those who primarily teach online courses because only seven respondents primarily taught online courses. However, type of institution did seem to matter. First, which category of class was reported on differed significantly across the types of institutions, $\chi^2(4) = 26.19, p < .001$, Cramer's $V = .434$. For undergraduate-only and undergraduate-and-graduate programs, about 50% of respondents completed this survey about topics courses; the remaining 50% of the sample was evenly split between introductory and methods courses. However, among respondents teaching at

community colleges, 75% of them responded about introductory courses, 25% responded about topics courses, and no one responded about methods courses.

The only attitude instructors across the three institution types differed in was feeling responsible for teaching writing; community college instructors felt less responsible for doing so than the other respondents (see Table 6). However, instructors across the three institution types did differ in teaching practices. Community college instructors were less likely to provide instruction on the APA manual, require students to read the APA manual, require students to read research sources, and require students to use evidence as support than undergraduate-only institutions (see Table 7, Lines 1–11). Community college instructors were less likely to use these four teaching practices than undergraduate-and-graduate instructors as well and were also less likely to provide instruction on APA style. Institutions differed very little in the types of assignments given. Specifically, community college respondents assigned self-reflection papers more often than did both other types of instructors and assigned reactions papers more often than did undergraduate-only instructors. In contrast, community college instructors assigned research papers less often than undergraduate-and-graduate institution instructors.

Discussion

In the Introduction, we presented information about psychological writing, suggested teaching methods, and provided examples of writing assignments. We then reported on a national survey that evaluated whether the rich information available about psychological writing has translated into actual practices. Our results showed that most instructors viewed writing as an important skill for psychologists, believed it was their responsibility to teach writing, and felt comfortable doing so (although many reported not enjoying teaching writing). In this discussion, we first highlight some of our more notable findings in terms of what instructors do when they teach writing and then suggest what they could do to further improve students' writing.

Table 7. Means and Standard Deviations for Teaching Psychological Writing and Assignments by Institute Type.

Survey Statement	Community College	Undergraduate Only	Undergraduate and Graduate	<i>F</i>	Partial η^2
1 Provide instruction on APA style	3.41 (1.45) ^a	3.96 (1.05)	4.05 (1.07) ^a	$F(2, 165) = 3.30, p = .039$	.038
2 Provide instruction on the APA manual	2.10 (1.08) ^{a,b}	2.78 (1.14) ^b	3.00 (1.20) ^a	$F(2, 165) = 6.06, p = .003$	.068
3 Require students to read the APA manual	1.59 (0.87) ^{a,b}	2.32 (1.20) ^b	2.52 (1.26) ^a	$F(2, 165) = 6.43, p = .002$	.072
4 Provide instruction on scientific writing	3.28 (1.19)	3.74 (1.04)	3.77 (1.09)	$F(2, 165) = 2.32, p = .102$	.027
5 Require students to practice paraphrasing	3.24 (1.50)	3.40 (1.11)	3.16 (1.33)	$F(2, 165) = 0.60, p = .55$	.007
6 Provide instruction about different types of sources	3.24 (1.30)	3.23 (1.14)	3.54 (1.04)	$F(2, 165) = 1.47, p = .24$	.017
7 Require students to read research sources	3.66 (1.14) ^{a,b}	4.14 (0.83) ^b	4.46 (0.76) ^a	$F(2, 165) = 8.47, p = .000$	.093
8 Require students to find their own sources	3.76 (1.24)	4.06 (0.97)	4.25 (0.94)	$F(2, 165) = 2.29, p = .105$	.027
9 Require students to use evidence as support	3.62 (1.32) ^{a,b}	4.15 (0.98) ^b	4.39 (0.86) ^a	$F(2, 165) = 5.78, p = .004$	.065
10 Provide instruction on how to read sources	3.28 (1.28)	3.56 (0.96)	3.58 (1.08)	$F(2, 165) = 1.84, p = .16$	.022
11 Provide questions to answer when reading	3.24 (1.40)	3.26 (1.33)	3.44 (1.22)	$F(2, 165) = 0.41, p = .662$	.005
12 Self-reflection	4.00 (1.13) ^{a,b}	3.22 (1.20) ^b	3.23 (1.36) ^a	$F(2, 165) = 4.63, p = .011$	.053
13 Solve a problem	3.17 (1.31)	2.69 (1.17)	3.05 (1.32)	$F(2, 165) = 2.20, p = .114$	.026
14 Observation	2.90 (1.47)	2.42 (1.22)	2.70 (1.20)	$F(2, 165) = 1.78, p = .172$	.021
15 Case study	2.41 (1.48)	1.90 (1.08)	2.28 (1.34)	$F(2, 165) = 2.50, p = .085$	.030
16 Research paper	3.28 (1.43) ^a	3.69 (1.15)	3.98 (1.16) ^a	$F(2, 165) = 3.42, p = .035$	.040
17 Reaction paper	3.69 (1.14) ^b	2.97 (1.31) ^b	3.38 (1.25)	$F(2, 165) = 3.93, p = .021$	.045
18 Study critique	2.86 (1.27)	3.12 (1.13)	3.30 (1.21)	$F(2, 165) = 1.29, p = .278$	.015
19 Compare and contrast	3.17 (1.28)	2.58 (1.14)	2.66 (1.26)	$F(2, 165) = 2.59, p = .078$	.030

Note. APA = American Psychological Association.

^aSignificant difference between community college and undergraduate only institutes using Tukey's honestly significant difference procedure. ^bSignificant difference between community college and undergraduate only institutes.

What Instructors Do

The primary purpose of the study was to shed light on psychological writing instruction of undergraduates. We found it encouraging that many instructors devote valuable class time to teaching psychological writing and they incorporate various best practices. Additionally, we found that the more time instructors reported spending on writing, the more likely they were to use these best practices. Students' writing is likely to show growth and improvement when writing instruction is infused in their courses (Fallahi et al., 2006; Luttrell et al., 2010), thus providing students with the tools necessary to produce effective writing.

Analyzing instructors' responses within each course category revealed several significant differences between courses. These findings indicate that instructors do not use a one-size-fits-all approach to writing instruction, instead they tailor writing instruction to each course category. For instance, introductory instructors incorporate few best practices in their classes, especially when compared to topics and methods instructors. One possible explanation for this finding is that introductory instructors may consider their role as familiarizing students with many psychology areas and psychological writing is one of those areas. They might view themselves as laying a foundation of knowledge upon which later courses will

provide more instruction to build students' writing ability. This explanation corresponds to the finding that fewer introductory instructors believed it is their responsibility to teach writing. Additionally, they may be reluctant to teach psychological writing to the many nonpsychology students who enroll in the course to fulfill a general education requirement.

Our analyses showed that, in contrast to introductory instructors, topics instructors utilize more of the best practices, suggesting that writing instruction escalates in complexity from introductory to topics courses. This escalation may arise because topics instructors felt more responsible for teaching writing than introductory instructors. Topics instructors may want to move students beyond a primer in psychological writing and therefore include a more nuanced and in-depth discussion about psychological writing into their classes than do introductory instructors. However, our analyses show that not all topics instructors provide the same amount of instruction. Correlational analyses suggested that those who did spend time teaching writing did use the best practices, but those who spent less time teaching writing did not use the best practices when they did teach it. Some topics instructors may provide less writing instruction because they assign few or no papers; that is, their goals for the class do not include improving writing or using writing to accomplish other goals. Another reason may

be that some topics instructors may believe the skill was taught in a previous class. However, our analysis of introductory Psychology (one of the classes where topics instructors may assume it was taught) suggests that they would be mistaken because these skills are generally not taught as much in introductory classes.

In general, students in methods receive comprehensive instruction on psychological writing. Similar to topics courses, methods include more of the best practices than introductory courses. Unlike the variability shown across topics instructors, though, methods instructors consistently teach writing. Additionally, methods instructors spend more time on writing instruction but actually assign fewer papers than topics instructors. This may be because methods instructors could assign longer (and therefore fewer) papers. In the current study, instructors did not report their assignment lengths. Nonetheless, methods instructors could have their students engage in a semester-long research study that culminates in an empirical report. Instructors may then provide writing instruction over the semester as students complete their report via separate drafts for different sections of the paper. Thus, psychological writing becomes one of the main content areas of methods courses because writing is part of psychological research methods (but not a main content area in topics or introductory courses).

Overall, the pattern of findings suggests that students receive progressively more complex writing instruction as they continue through their coursework (Beins et al., 2010; Soysa et al., 2013). Our results imply that for some students, writing instruction increases in emphasis from introductory to methods courses (with some topics courses serving as a bridge between the two courses, though not consistently). Our limited data suggest, at least, a developmental trend in writing instruction. In general, responses reflected the view that writing is a skill to be developed over the course of students' undergraduate education. This is helpful to students because instruction presented in small, manageable portions can build upon students' past learning to expand their knowledge. Students in other majors have shown significant improvement in writing and retention of writing rules when instruction was purposefully delivered over several semesters (Johnstone, Ashbaugh, & Warfield, 2002; Kokliari et al., 2012). Additionally, repetition of past information can serve to refresh, reinforce, and consolidate students' memories (Tulving & Schacter, 1990). However, a developmental approach across students' college careers depends on topics and methods instructors' awareness that introductory students receive only a basic knowledge of psychological writing rather than exhaustive coverage. Therefore, these instructors should be sure to cover writing in depth.

We found that, regarding written assignments, most instructors used a diverse approach by assigning a variety of papers; all paper types were assigned, and there were few differences across course types. Additionally, most instructors assigned at least one paper at the higher levels of Bloom's Taxonomy (Bloom, 1956), which we categorized as critical thinking. We argue that assigning multiple types of assignments is helpful

because students will be able to practice writing for different purposes and learn many psychological writing skills. We propose that encouraging students to write for different purposes may aid them in becoming more sophisticated thinkers. After college, students will be expected to write for varied purposes, such as application essays, cover letters, and progress reports. Completing a variety of assignments as undergraduates may enable them to handle these writing tasks easily because they are used to writing different styles of papers.

Our comparison of assignments across the different types of courses indicated that, in general, instructors use similar assignments across different courses. Most instructors reported assigning research papers, reaction papers, and self-reflections. This is seemingly in contrast to recommendations by Beins, Smith, and Dunn (2010) and Soysa et al. (2013), who suggested that instructors should assign less complex papers to introductory classes and more complex papers to later classes. However, it may be the case that instructors are achieving this goal even though they all assign similar paper types; instructors could be altering the assignment instructions, so that the complexity increases across courses. For instance, introductory assignments might require incorporating one scholarly source, but topics might require a few sources, and methods assignments might require even more. Furthermore, introductory assignments might have students recall information, whereas topics assignments might have students interpret the information, and methods assignments might require students to draw their own conclusions. This would result in papers becoming more challenging, even though at a base level, they are still the same type.

Furthermore, we also found that differences between institution types may impact how psychological writing skills are taught. It is possible that instructors at different types of institutions have different goals and expectations for their students (e.g., those who earn an associate vs. a bachelor degree) and therefore teach them differently. Differences in departmental policies about writing or the inclusion of a Writing Across the Curriculum program could also account for institutional differences. Teaching differences may also be associated with the resources available to students and instructors at different institutions. For instance, Limke, Holloway, and Knight (2011) discussed how the availability of computer laboratories was important to their success at teaching students APA style. However, it should be noted that most community college instructors responded to the survey regarding an introductory course (which generally focuses less on teaching writing) and no community college instructor responded regarding methods courses. Thus, the institutional differences may actually be due to the class being taught rather than the institute type.

What Instructors Could Do

Although instructors seem to utilize many of the best practices from the literature, our survey indicated specific areas where each course could improve, while maintaining a developmental approach to writing instruction. For instance, as appropriate for

the specific course and assignment, introductory instructors should include more writing instruction. Although introductory instructors reported teaching many of the topics less frequently, they give the same assignments as topics and methods instructors. Introductory instructors might see significant improvements in students' assignments if they are given focused instruction and practice, which has improved other aspects of psychological writing (Fallahi et al., 2006; Limke et al., 2011). Incorporating more of these writing skills into introductory classes will lay a stronger foundation for when students learn the skills in more depth during later courses. It need not be in-depth or time intensive, but planting the ideas can lead to benefits later.

Although topics instructors reported using many of the best practices, they, too, could improve their efforts. As stated, although some of these instructors do utilize the best practices, not all of them do. We argue that more topics instructors should do this, so that students get a uniform learning experience. On the one hand, it may not be appropriate to provide writing instruction in some topics courses, particularly if students are not assigned any papers. However, the APA includes written communication as a learning outcome of undergraduate psychology (APA, 2013), indicating the importance of writing to undergraduate education. Therefore, incorporating writing into classes as much as possible can be helpful to students' education.

As discussed, methods instructors reported using most of the best practices and devoting much class time to teaching writing; therefore, we have few suggestions for improvement based on our data. However, methods instructors might consider including more paraphrasing practice in their classes because they reported including this less frequently than the other practices. Students are expected to write papers that are likely to incorporate this skill, but may not know how to paraphrase well. As one instructor stated, "students do not feel comfortable rewording an expert and then either quote or plagiarize," suggesting that students have a need for practice and that lack of experience has consequences for students' writing. In general, though, most methods instructors in our study seem to provide thorough writing instruction.

In this section, we made multiple suggestions to increase the amount of writing instruction in classes. We acknowledge, though, that this can be difficult to do because of the limited amount of time available in classes; some respondents may spend little time on writing instruction because there is not enough time to teach both the course material and psychological writing. As one instructor commented, "class size and number of courses prevent me from doing more intensive teaching and writing." Therefore, instructors should strive to find a balance between devoting too much time to writing (at the expense of class content) and not enough. Additionally, our suggestions for what instructors should teach depends on the writing background students have received in their College English course. If this course places heavy emphasis on paraphrasing or citations, psychology instructors may not need to cover it in as much depth.

Our final recommendation is directed to the overall organization of a psychology program and concerns when students should take the methods course. In some programs, students might enroll in a methods course toward the end of their education. Instead, we propose that students might benefit more from taking methods earlier in the sequence of courses because our analyses show that students receive in-depth psychological writing instruction in methods. We argue that having students take this course early in their academic career would provide them with a solid foundation of psychological writing (see also Dunn et al., 2010; Stoloff et al., 2010). Students are likely to benefit from taking the course early provided that their methods instructors view psychological writing as a main area of the course's focus (and therefore include it extensively). Furthermore, instructors of different courses should communicate to increase the likelihood that students will transfer this knowledge to their later courses.

Limitations and Future Directions

Although the current study highlighted many aspects of instructors' practices, our self-report method has limitations. For example, respondents may only have given responses that are socially desirable (i.e., overreporting the amount of teaching instruction). We attempted to account for this by assuring respondents' anonymity from the researchers. Empirically, the results did not show ceiling effects, suggesting that instructors did not feel compelled to overreport teaching writing or give generally socially desirable answers. Another limitation of our self-report is the possibility of over- and underestimations. Instructors were asked to respond with their own perceptions of relative time amounts but may have misperceived or misremembered the actual time amounts. The categories may have also been too broad and respondents may have used different operational definitions. Therefore, the responses should be interpreted with this in mind. An alternative method would be to ask respondents to report the number of lectures or class sessions devoted to each topic (though there would likely still be inaccuracies reported).

Future research that would address some of these limitations could be to observe classes either in person or using syllabi and writing assignments rather than relying on self-reports of writing practices. Class observations of writing instruction on a large scale (such as a national sample) may not be feasible. However, class observation among colleagues could be a useful method to share insights and ensure consistency across courses. Therefore, we suggest instructors' dialogue with their colleagues about teaching writing and observe each other's classes, syllabi, and writing assignments.

The current study also could have directly examined whether individual instructors or psychology programs sequence their writing instruction along a developmental path. Although we are interested in this issue, practical time and length constraints prevented us from including more extensive questions. A future study could ask instructors to report on several courses or ask about the psychology program as a

whole (rather than one instructor's course). Finally, future research could study the role played by instructor-provided feedback in students' writing.

Conclusion

This study is a step toward understanding undergraduate psychological writing instruction. Based on the findings, we conclude that much of the information on teaching psychological writing is utilized. Additionally, we found that instructors seem to incorporate a developmental approach to writing instruction across courses. Furthermore, we found that instructors are attempting to push students toward higher order cognitive skills (i.e., critical thinking and application skills) in their assignments and that many instructors employ a variety of assignments. However, we encourage instructors to consider devoting more time to writing instruction. We recognize that this is not easily accomplished given class size, course loads, and other time constraints. Nonetheless, instructors have a wide knowledge base from which to draw to take the opportunity to help students improve their writing skills.

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