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Assessing the Value of Integrating Writing and Writing Instruction into a Research Methods Course

Jayne Baker
University of Toronto Mississauga, jayne.baker@utoronto.ca
Tyler Evans-Tokaryk
University of Toronto Mississauga, tyler.tokaryk@utoronto.ca

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Assessing the Value of Integrating Writing and Writing Instruction into a Research Methods Course

Abstract
Universities across Canada and elsewhere have a longstanding focus on improving students' writing skills, including for the purpose of fostering better learning. In this paper, we present findings from two sources of data—a discursive analysis and student survey—exploring the impact of writing instruction and support in the context of a required social science research methods course. The course is situated in an institutional context whereby specific courses are targeted for writing support through the provision of additional funds. The results indicate that the structure of the course—featuring components like tutorials and scaffolded assignment design—facilitates gains in student writing. The discursive analysis shows improvements across the three assignments submitted throughout the term and a positive impact of tutorial attendance. The survey indicates that students have an overall positive impression of the supports designed specifically with the learning of writing and research skills in mind.

Les universités d'un bout à l'autre du Canada et ailleurs se concentrent depuis longtemps sur l'amélioration des compétences en écriture des étudiants et des étudiantes dans le but de favoriser un meilleur apprentissage. Dans cet article, nous présentons les résultats de deux sources de données – une analyse discursive et un sondage auprès des étudiants et des étudiantes – pour explorer l'impact de l'enseignement et du soutien de l'écriture dans le contexte d'un cours obligatoire de méthodes de recherche en sciences sociales. Le cours se situe dans un contexte institutionnel où des cours spécifiques sont ciblés pour le soutien à l'écriture par l'octroi de fonds supplémentaires. Les résultats indiquent que la structure du cours – dont certaines composantes comprennent des tutoriels et la conception d'exercices d'étayage – facilite l'amélioration de l'écriture des étudiants et des étudiantes. L'analyse discursive indique des améliorations dans les trois travaux soumis au cours du trimestre et un impact positif sur la présence aux tutoriels. Le sondage indique que les étudiants et les étudiantes avaient une impression généralement positive des soutiens conçus spécifiquement pour l'apprentissage de l'écriture et l'acquisition de compétences en matière de recherche.

Keywords
writing, feedback, writing across the curriculum, post-secondary students, tutorials; écriture, feedback, écriture à travers les programmes d'études, étudiants et étudiantes d'enseignement post-secondaire, tutoriels

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Most faculty teaching at Canadian universities today would likely agree that their students require ongoing and, in some cases, extensive support to complete the writing assignments in their courses. Indeed, a prevalent and long-standing concern among faculty is their students' need for instruction in foundational academic writing skills at the university level. Many scholars have argued that it is the responsibility of higher education institutions to help students become better writers (Anderson & Holt, 1990; Cadwallader & Scarboro, 1982; Day, 1989; Kolb, Longest, & Jensen, 2013). Further motivating the focus on improving undergraduate students' writing is the decades-long research on how writing can also foster better learning.

This paper explores efforts within a social science department to institute targeted writing instruction in a course required for program completion. The research is conducted at a university that does not have a required first-year composition course but does offer a Writing Across the Curriculum (WAC) program that provides funding for additional writing and writing instruction in individual courses. Typically, funded WAC projects feature additional writing assignments and more contact time between students and Teaching Assistants (TAs). The authors of this paper are a disciplinary faculty member (a sociology professor) and a writing specialist who collaborated on a WAC project in a required research methods course (SOC2XX).[1] We analyze two sets of data to study whether additional resources devoted to writing practice and writing instruction provide any learning gains. The first of these is a corpus of student writing, specifically a collection of research questions written and revised over three stages of a scaffolded writing assignment; the second is a set of survey responses from students asked about their perceptions of the writing assignment and attitudes towards the course structure and supports, including tutorials.

Literature Review

Writing Instruction in Canada

Mechanisms for providing writing instruction and writing support to students can vary widely depending on the institutional context. In Canadian universities, writing specialists in Writing Centres often offer writing support, including interventions embedded in core courses. This is a notable difference in approach relative to the (often mandatory) first-year composition courses common in the United States and delivered by English departments. Indeed, most Canadian higher education institutions do not rely on first-year composition courses or English departments more generally to teach undergraduate students academic writing skills (Graves & Graves, 2006; Kaler & Evans-Tokaryk, 2019; Smith, 2006). Instead, methods of writing instruction are determined by the local institutional context that often includes writing specialists working in university writing centres not housed in any specific department or faculty (Proctor, 2006). Efforts to embed writing within the curriculum are often driven by disciplinary instructors who know what works best in their courses, collaborating with writing specialists who have training in academic writing instruction. In this way, writing specialists help deliver student-focused content that is specific to a course and delivered locally (Proctor, 2006). More broadly, writing centres and the instructors who work there may also steer and support institutional initiatives designed to teach writing and promote the integration of writing to enhance learning across the curriculum. The authors of this paper participated in precisely this kind of collaboration. The course where the current research was conducted was part of a campus-wide initiative

[1] The name of the course is excluded, and the course code made generic (i.e., SOC2XX), to ensure the confidentiality of its students.

providing funding for discipline-specific writing support embedded in core courses across the curriculum. The writing specialist advised the sociology professor on the design of the scaffolded writing assignment, rubric, and writing supports and then participated in the sociology professor's assessment of the impact of the funding on student writing.

Writing Across the Curriculum

Academic writing instruction in Canada takes many different forms and is often "characterized by isolated and uncoordinated initiatives. . . varying wildly from context to context" (Hunt, 2006, p. 371). In her recent (2016) doctoral research on the history or writing studies in Canada, Dana Landry documents "the diversity of programs" that deliver academic writing instruction to undergraduate students in Canada, while Kaler and Evans-Tokaryk point out that over the years "responsibility for writing instruction at Canadian universities shifted from English departments to writing centres and WAC programs" (2019), with the latter generally informed by the Writing Across the Curriculum movement that emerged in the United States in the 1970s. WAC assumes that writing is the responsibility of the entire academic community and, as such, that writing support and instruction should be integrated throughout the curriculum. WAC also assumes that writing promotes learning. Thus, most WAC programming includes what are often referred to as "write to learn" and "learn to write" components. It is important to note that these different approaches to writing are complementary rather than in conflict with each other. "Write to learn" begins with the premise that active learning and writing activities should be used to support and promote deep learning (Bean, 2011). In practice, this often translates into frequent low-stakes or no-stakes writing exercises such as one-minute papers or tickets-out-the-door. These can be conducted in-class and are often not graded in any formal way. The purpose of "write to learn" exercises is to use writing as a tool to help students to think through course concepts. Conversely, "learn to write" exercises teach students the conventions associated with formal, discipline-specific, academic writing. This approach to writing instruction uses writing as a means of training students to think and communicate as disciplinary experts. In other words, "learn to write" assignments teach students to produce material that conforms to the expectations of their discipline—these expectations can relate to organization, argumentation, and citation styles. Generally, "learn to write" exercises will be longer and more formal than "write to learn" exercises. Most writing-intensive courses across the curriculum base a significant portion of their grade on larger "learn to write" assignments.

Many instructors use scaffolded assignments when taking a "learn to write" approach in their courses. Scaffolding breaks a task down into smaller pieces that conform to the stages of the writing process and allow instructors to provide formative feedback on students' writing and thinking throughout the term. Scaffolding a large writing assignment also helps ensure that students are less overwhelmed or intimidated by a writing task and can make it easier for students to manage their time more effectively. An effective "learn to write" assignment in a WAC course ought to engage students in critical thinking and knowledge production through a problem- or meaning-oriented task, a rhetorical context, and well-designed instructor expectations (Bean, 2011). Of course, shorter no-stakes or low-stakes "write to learn" exercises focusing on the different skills students need to master throughout the writing process (e.g., paragraph writing, integrating evidence, citing sources) can also be assigned in class to support their learning as they work on each stage of the larger, high-stakes "learn to write" assignment.

The objective of WAC is to get students writing more and more frequently. Such an approach will ensure not only that students develop better writing skills, but also that they are more engaged in the course material and experience deeper learning. In short, more writing creates better writers (Day, 1989) and more engaged learners. However, as Anderson, Anson, Gonyea, and Paine (2009) note, a thoughtful and meaningful assignment design is far more important for engaging students in deep learning than the number of pages written; students' self-reported gains in practical competence connected to their learning are associated with interactive writing, meaning-construction in assignments, and clear expectations from instructors, not from writing copiously (Anderson et al., 2009).

In addition to these "write to learn" and "learn to write" exercises, other common features of WAC include classroom instruction on the writing process, interactive writing workshops (in tutorial, in class, or outside of class), and formative feedback on student writing, preferably through the use of rubrics. As we describe in the "Institutional Context" section below, SOC2XX was redesigned to include many hours of tutorial instruction on academic writing, much of it informed by the WAC principles described above; it also included a number of interactive workshops that provided students with an opportunity to practice specific writing skills; and assignment-specific rubrics were developed for each stage of the scaffolded assignment and explained to students when the assignments were introduced in class.

Writing Instruction in Sociology

Sociology, like many other disciplines, is attuned to the challenges related to student writing. Generally, practitioners of sociology agree with the WAC principle that writing on a constant basis can improve students' writing ability and learning, helping them demonstrate their grasp of sociological concepts in effective ways. Constant writing early in a program allows students to target their writing issues and take steps to address them appropriately over the course of their university career (Kolb et al., 2013). Other course-specific strategies such as peer review, writing groups, writing workshops, and process memos (Cadwallader & Scarboro, 1982; Ciabattari, 2013; Karcher, 1988; Kolb et al., 2013; Parrot & Cherry 2015) are commonly employed by sociologists, and all of these approaches appear to be effective.

Another approach common in the discipline is to provide writing instruction and writing support across the curriculum more broadly. Burgess-Proctor, Cassano, Condron, Lyons, and Sanders (2014) describe the implementation of writing-improvement strategies across their courses in an interdisciplinary program. Such strategies included in-class writing workshops, library research orientation sessions, and instruction on peer review. In a similar vein but broader in scope, Migliaccio and Carrigan (2017) describe the programmatic approach taken by their sociology department by introducing writing instruction in all core courses (except for Statistics). As they state, "the intention was that students could not miss (by chance or intention) these educational practices" (p. 234).

It is also important to note that there are concerns among sociologists—and instructors more generally—about whether they are equipped to provide good writing instruction to students. Though many argue that sociologists, rather than writing specialists, should teach writing in order to help students write according to the conventions of their discipline (Anderson & Holt, 1990; Cadwallader & Scarboro, 1982; Ciabattari, 2013; Day, 1989; Grauerholz, Eisele, & Stark, 2013; Karcher, 1988), others raise concerns that sociology faculty lack the proper training and knowledge to teach writing in the classroom (Hudd, Sardi & Lopriore, 2013). Many faculty members may be

hesitant to take on the challenge of improving the writing skills of their students because of workload concerns (Migliaccio & Carrigan, 2017). As Kaler and Evans-Tokaryk (2019) note, a common and effective strategy for addressing these challenges is for writing specialists to collaborate with and support disciplinary faculty members in their teaching. This partnership works because disciplinary faculty bring their knowledge of their students, course, program, and field while the writing specialists contribute their expertise in Writing Studies.

The WAC program at our institution features precisely this kind of collaboration in dozens of different courses, each featuring customized, discipline-specific writing instruction that often focuses on genre and rhetorical considerations such as the audience, purpose, and context. In some cases, such as in SOC2XX, the writing specialist and disciplinary faculty member choose to collaborate on the creation of writing workshop materials, scaffolded assignments, rubrics, and other forms of support that are aligned with course and program learning outcomes. Despite this support and attention paid to learning outcomes, however, it is not unusual for both instructors and students alike to worry that writing support and instruction can divert significant class time and attention from coverage of disciplinary content.

Institutional Context of SOC2XX

This paper presents a case study of academic writing instruction. The course in question, SOC2XX, is a required second-year course for students in a major or specialist program in sociology and criminology, law, and society. The 12-week course introduces students to the paradigms and conventions of social science research methods, and is a standard offering in most sociology and criminology programs across North America and elsewhere. As is the case in many other social science departments, SOC2XX has the challenge of introducing students to a subject matter that is largely unfamiliar to them and, to most, regarded as irrelevant to their current program of study or future career (Markle, 2017). Many students enter these types of courses with a desire to simply "get through" with a passing grade in order to earn the required credit, and may feel anxious about the demands of the course and the new terminology in a way that competes with their learning (Markle, 2017). Despite these challenges, the placement of SOC2XX in the curriculum and its restricted enrolment make it an excellent course for writing intervention.

The students in these programs are among a student population of over 14,000. The institution is a suburban campus of a large research university. The department and much of the campus has an undergraduate focus and over 20% of the student population is composed of international students. Additionally, a significant number of domestic students (i.e., those who do not pay international student fees) speak English as a second or additional language and rarely use English at home or outside of the classroom.

As is typical in the Canadian context, our institution did not have a first-year writing program when this research was conducted, and it has never had a post-admission writing proficiency test. Instead, writing support for students is administered and delivered through the university's writing centre. In addition to standard writing centre offerings, the writing centre coordinates a WAC program that provides funding for innovative projects that incorporate additional writing or writing instruction into courses across the curriculum. Typically, a disciplinary faculty member proposes and develops a project by identifying the kind of writing support that would best serve their students, crafts a plan for addressing them, and provides a budget for how much this will cost. In most cases, the project involves additional hours for grading

more written work. Many faculty members will consult and collaborate with a writing specialist when developing their projects.

Beginning in 2013, SOC2XX participated in this program and was awarded additional funds to support its transformation into a more writing-intensive course. These additional resources go towards sustained and frequent contact with TAs, a scaffolded assignment structure (which means additional grading), and new weekly tutorials facilitated by the TAs. (In the term under study there were four TAs in the course.) The tutorials were collaboratively developed by the authors of this paper and incorporate a number of different "write to learn" and "learn to write" exercises that introduce students to the skills they need for the higher-stakes writing assignments. Examples of topics covered in the tutorials include the ASA citation style, paragraph structure, critical reading skills, quoting and paraphrasing, and writing a literature review. Tutorials were structured so that they focused on the next stage of the scaffolded assignment.

The assignment structure is a research proposal, scaffolded into three stages; the students do not actually undertake the research project. The writing components constitute 40% of the student's final grade in the course. Table 1 indicates the breakdown of the writing intervention components of the course. The first stage asks students to articulate a research question, explain their research topic, and list three sources that they believe are relevant to their topic. The second stage is a literature review of ten scholarly sources related to their research question (which students are expected to revise based on feedback received on assignment one). The final submission is the research proposal, due in the final week of the course. Students apply the relevant and appropriate course and tutorial material to their research question, demonstrating through the content of their proposal their understanding of the course content as it relates to their research question. The literature review that the students submit in stage two becomes part of the research proposal, as does the research question at the centre of stage one and stage two. Scaffolding the elements of the research proposal in this way allows for regular and ongoing formative feedback and provides multiple opportunities for students to revise and improve their writing (Bean, 2011).

Table 1

Writing Interventions and Assessments

Criteria	Value
Scaffolded Final Research Proposal	40%
Research question, topic description, and three sources	5%
Literature review	15%
Research proposal	20%
Tutorials (attendance)	10%

As is often recommended in WAC programs (Walvoord, 2014), detailed analytic rubrics were developed for each stage of the assignment in order to provide detailed formative feedback. The rubrics were collaboratively developed by the authors and refer both to disciplinary content and writing conventions. For example, the final report rubric includes the following assessment criteria along with brief descriptions of what each criterion means: Introduction, Literature Review, and Conclusion; Details of the Proposed Study; Formatting; Grammar and Writing. The student receives feedback via a completed rubric; grading criteria that are not met are highlighted and written feedback provided. In-person support is also offered as part of the follow-up, through office hours and ongoing tutorials. By the end of the assignment, the expectation is that students have a well-developed and well-written research question and a plausible method for answering

that question. Indeed, these expectations are included in the learning outcomes for the course. Through such an approach, we hoped to use writing as a tool to improve our students' understanding of the course content and facilitate their development into a disciplinary expert.

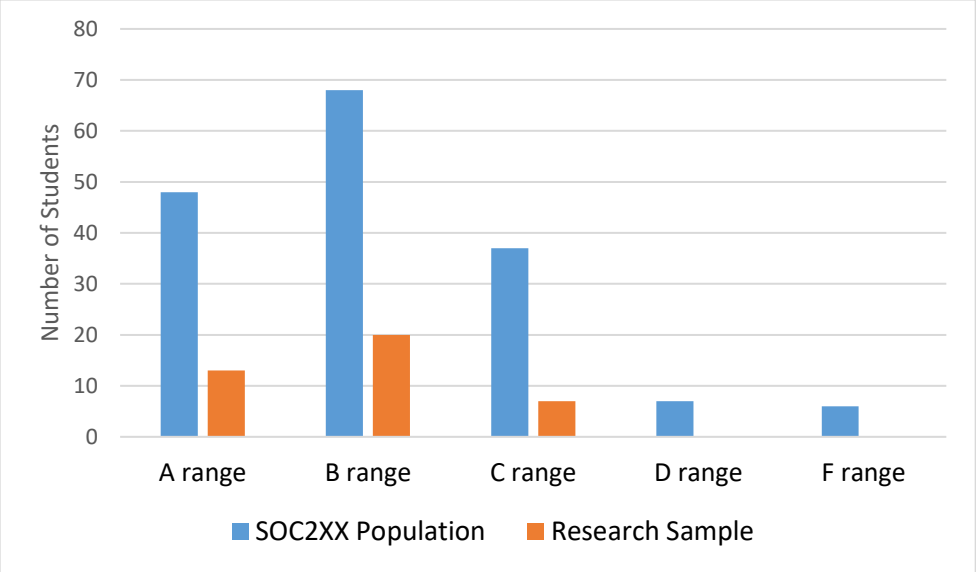
The goal of this research project is to assess whether the quality of the student's research question improved throughout the course. Articulating a research question is just one disciplinary convention, where one can reasonably expect to see improvements in students' understanding of course material *and* writing ability in the research question itself. The research question was selected because it reflects growth in students' mastery of course content, including the understanding of social science research paradigms, the connection between method and type of question, knowledge of the existing research on their topic, and conventions in social science research and writing. Indeed, among the pedagogical challenges in a course like SOC2XX is that student progress is shaped by the interrelationship of writing skills, knowledge of course concepts, and knowledge of the substantive subject matter they explore for their research proposal. The research question captures this interrelationship, and thus also captures student progress. The research question was submitted in each of the three assignment phases listed above, providing an opportunity to track changes over the duration of the course.

Data and Method

This research was conducted with the approval of our institution's Research Ethics Board. Two methods were used to measure changes in students' writing. The first was a discursive analysis of the student's research question over the three submissions. A discursive analysis is a common method of gauging writing improvement (Bean, 2005; Walvoord, 2010) and is used at our institution to assess the impact of each of the projects participating in the WAC program that provides funding to SOC2XX *(*Kaler & Evans-Tokaryk, 2019). We collected writing samples from a random sample of 40 students from a larger pool of 72 students that had given their informed consent via a signed letter of informed consent to be part of the research. (The entire class population totaled 165 students.) We employed a stratified sampling technique, using a random number generator, to mimic as closely as possible the grade distribution of the entire group of students that passed the course. The final sample includes 13 "A" students (final grade between 80-100%), 20 "B" students (final grade between 70-79%), and 7 "C" students (final grade between 60-69%). Because there were no "D" students (final grade between 50-59%) or "F" students (final grade below 50%) who provided their informed consent, the research sample is not an exact match, though it does mirror the overall distribution as much as possible. (See Figure 1 below.) All data were anonymized and analyzed after course grades were submitted.

Figure 1

Grade Distribution of Class Population and Research Sample



The research question in each of the student's three phases of the assignment was retrieved from the students' electronic submissions and gathered into a spreadsheet (i.e., a total of 120 research questions were assessed, three for each student). Each research question was assessed against criteria developed during a pilot study in the previous year. The research question assessment criteria reflect instruction provided in class and tutorials as well as guidelines contained in the textbook. These criteria were converted into a minimal rubric featuring the criteria and associated scales (Walvoord, 2010) (see Table 2 below). The researchers used these criteria to assess the students' research questions. Frequent benchmarking sessions ensured that the individual researchers' assessments of the student writing samples were aligned. Once individual assessors had completed the assessment of all research questions, the results for each student's research questions were merged and averaged.

Table 2

Research Question Assessment Criteria and Scales

Criteria	Scale
Articulates a relationship between two central variables or concepts	(0-1)
Research topic is one that has been raised in the sociological literature	(0-1-2)
Suggests a plausible research design	(0-1-2)
Avoids vague or ambiguous language when describing key scholarly material	(0-1-2)
Stated neutrally or contains an implicit hypothesis (but is not in the form of a hypothesis statement)	(0-1)
Wording is clear, complete, and avoids colloquial language	(0-1-2)

The second method for measuring writing improvement was an anonymous student questionnaire, using an external survey website (SurveyMonkey). This instrument was designed to measure students' perception of the intervention and provided us with a valuable context for interpreting the data generated by the discursive analysis. Forty-two of the 165 students (25%) completed the questionnaire at the conclusion of the course. The questionnaire asked students to

report what features of the course they found to be most and least helpful for their learning of writing and research skills and explored their perception of the value of the course's tutorials. The questions were closed-ended and open-ended. Open-ended responses were coded inductively according to the themes that emerged from the student's responses about their experience with the course, assignments, tutorials, and supports.

Findings

Providing Feedback

In advance of the first stage of the assignment, where students submit their research question for the first time, students were introduced to the assignment guidelines and, importantly, the rubric used to evaluate their submission (see Figure 2). In class, the instructor guided students through the assignment instructions and the connection between those instructions and the rubric. TAs also reviewed the assignment instructions and rubric criteria in tutorials, framing their discussion of each in terms of avoiding errors and achieving full points. In addition, they discussed how to move from a research topic to a research question by integrating course content and writing instruction into their tutorials. Principles of a good research question (the same that shaped the development of the rubric) were also reviewed. Finally, students had the opportunity to assess a sample of previous students' research questions using the same rubric.

It is important to note, here, that the assignment rubric includes a criterion not included in the discursive analysis we conducted in our research: "Stated in the form of a question." The rubric is a tool to guide the students' focus and our experience with SOC2XX suggested that, at this early phase of the research proposal, many students required a reminder about phrasing their inquiry in the form of a question. In addition, the assignment rubric excludes a criterion included in the discursive analysis: "Wording is clear, complete, and not colloquial." This was, similarly, a pedagogical decision to guide students through the rubric. We emphasized to students that the focus of the first assignment was on ideas and higher-order concerns like communicating the central concepts guiding their inquiry. Students were told that lower-order concerns like spelling would be commented on by their TA but were not part of the evaluation. Students were also advised that spelling, grammar, and citation style would be included in the rubrics for assignments two and three. Overall, then, the rubric was a tool to guide the students' focus and reinforced the development of the research question over the three assignments.

Figure 2

Writing Assignment Stage One – Rubric

Research Question Assessment Criterion	Value on a scale of 0 – 1 – 2			Comments
Stated in the form of a question.	0	1	2	
Avoids vague or ambiguous language when describing key scholarly material	0	1	2	
Articulates a relationship between two central variables or concepts	0	1	2	
Stated neutrally or contains an implicit hypothesis (but is not in the form of a hypothesis statement)	0	1	2	
Research topic is one that has been raised in the sociological literature	0	1	2	
Suggests a plausible research design	0	1	2	

/12

TA initial:

Assignment mark:

Research question assessment total	Check minus/Check/Check plus	Mark out of five
0-4	√-	3
5-8	√	4
9-12	√+	5

Even after the first phase of the assignment had been submitted and graded, this rubric continued to shape discussions with students. The second and final writing submissions (literature and research proposal, respectively) were accompanied by distinct rubrics to reflect the different

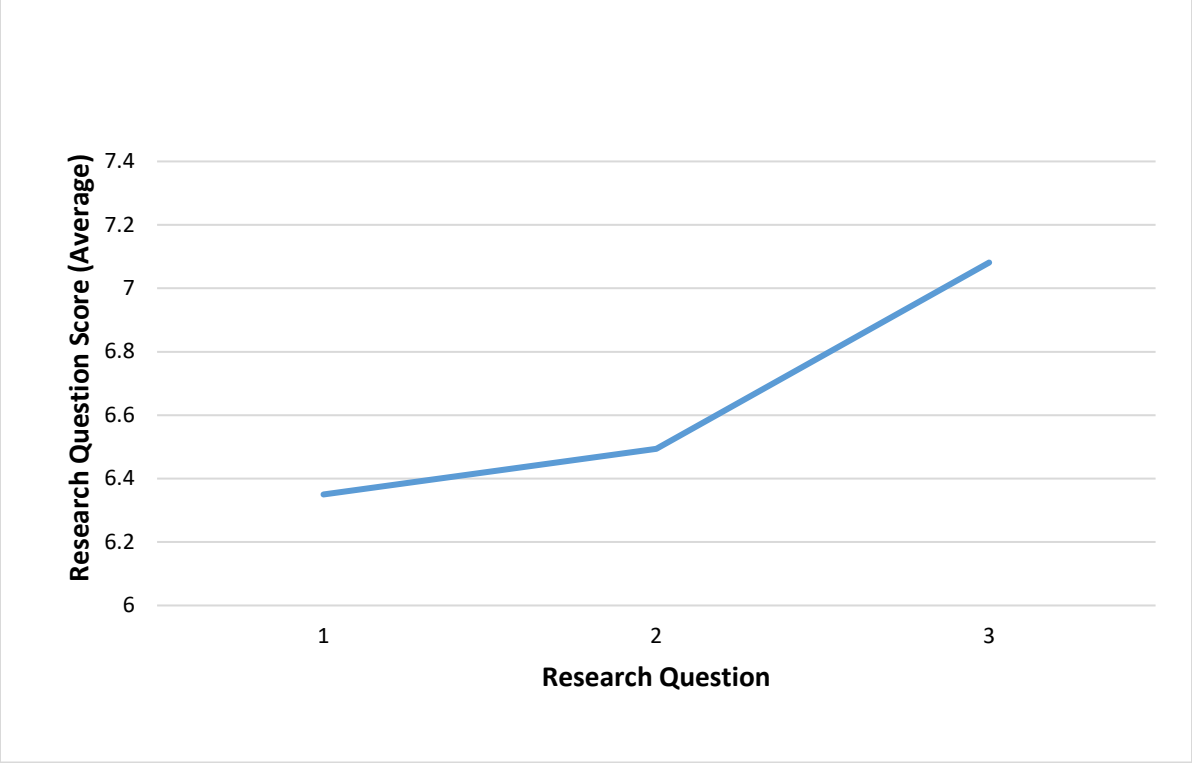
research and writing tasks. Nevertheless, TAs would often begin their discussions with students in tutorials and office hours with "what is your research question?", finding that returning to the first phase of the assignment, and the research question specifically, was a useful starting point because it helped the TA track where the student was having difficulties with skills related to methods and/or writing. And though the research question was not the singular focus after the first phase of the assignment, TAs would continue to refer back to the first rubric and the principles of writing a good research question throughout the course.

Indicators of Writing Improvement

The progression of the quality of the students' research questions is most directly represented by the average scores they received on the three phases of the assignment (referred to as research questions 1, 2, and 3). Along the x-axis of the graph are the three assignment phases from which each student's research question was drawn. The y-axis indicates the research question score, which can range from zero to 10. As shown in Figure 3, the quality of the students' research question improved, on average, from the first submission to the submission of their research proposal. Though the growth is small, it is in a positive direction and indicates that the students incorporated the feedback they receive at each stage of the assignment. These revisions resulted in improvements to their overall research question score.

Figure 3

Average Score for Research Question 1, 2, and 3



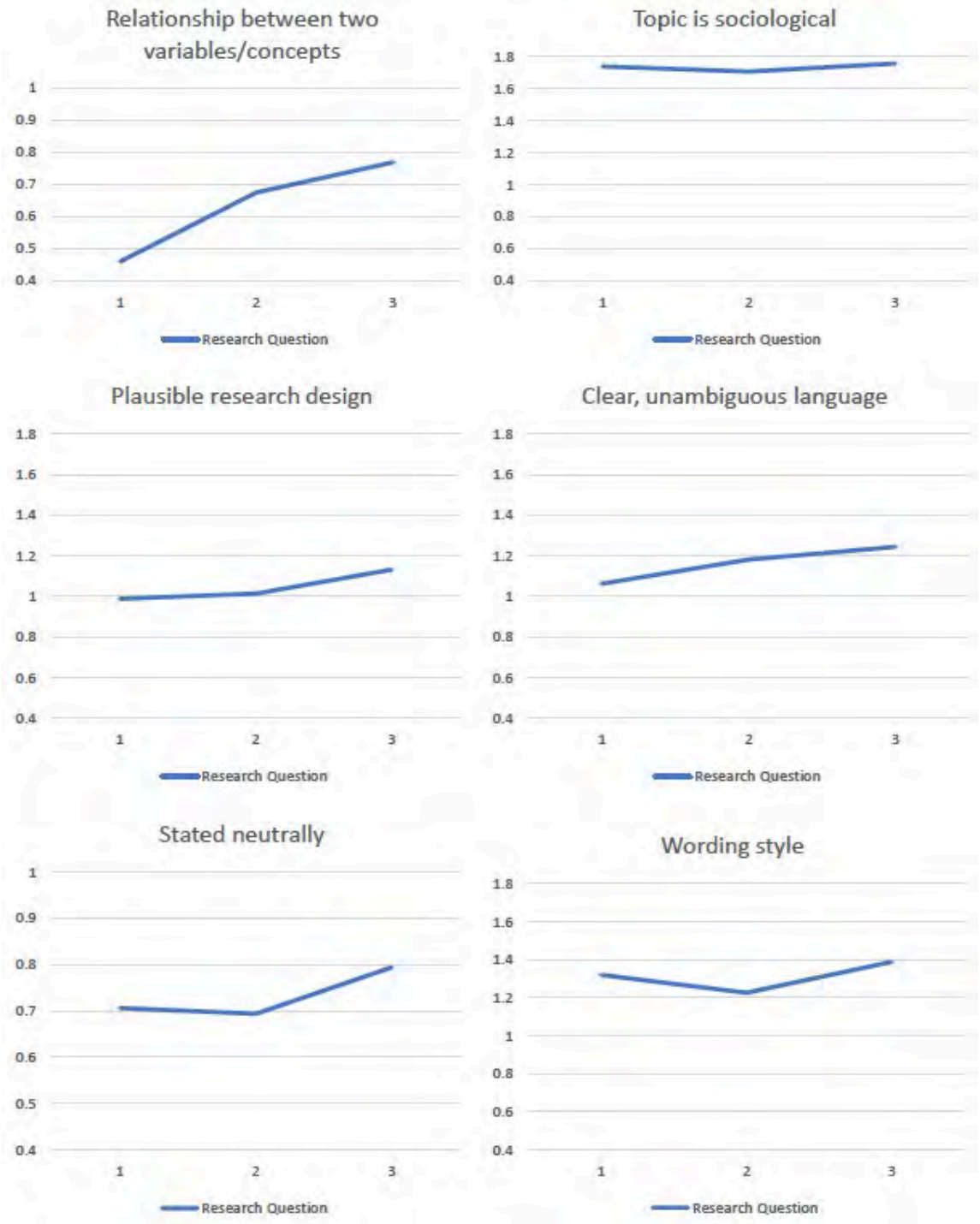
The average trajectory depicted in Figure 3 illustrates the general trend over the stages of the writing assignments but does not capture changes in the individual assessment criterion across

the three submissions. To that end, Figure 4 captures the trend for each of the six research question assessment criteria, clustered by content and writing. The criterion related to research methods content intersects with criterion that is related to the mechanics of writing. Gains are evident across all six criteria, with scores at the third submission being consistently above scores at the first submission. The first four figures are focused on research methods-related components of the research question: focus on the relationship between two variables or concepts; relevance of the topic to sociology; plausibility of research design; and use of clear, unambiguous language. Of these, students were most proficient in their ability to develop a research question that had its roots in the sociological literature. Students made substantial gains in articulating a relationship between two central variables or concepts. Though we see growth over time, many students did not significantly improve their ability to articulate sociological concepts using unambiguous language. For example, a student might state in their research question that their focus is "gender," as opposed to articulating more specifically "gender inequality" or "the gender wage gap." This criterion in particular is emblematic of the interrelationship between research methods, the students' substantive research areas (gender, in this case), and writing. Similarly, a student's understanding of the precise nature of a variable and how research projects are designed, for example, would improve over time and, in turn, improve their ability to write a precise and plausible research question. Again, the changes we see across these six criteria are intertwined and change together.

The final two figures represent the lower-order aspects of students' writing: the degree to which students stated their question using neutral language and used wording that is clear, complete, and not colloquial. Both are characterized by a drop in the second assignment phase before a rebound at the third (and final) phase; that rebound exceeds the score of the research question contained in the first phase of the assignment. On the end-of-term questionnaire, students indicated that stating their question neutrally was among the most challenging elements of a research question to achieve. Students often selected a research topic that they believed they already knew something about. While this connection to a topic helped fuel their ongoing interest in the development of their research proposal, it also kept some from being able to state their research question in a neutral way. However, Figure 4 also demonstrates consistent growth in this particular domain of crafting a research question. Students scored well on their ability to use clear, complete, and non-colloquial wording ("Wording style"), and indeed identified this criterion as one that was easy or straightforward for them to achieve.

Figure 4

Trends for Individual Assessment Criteria

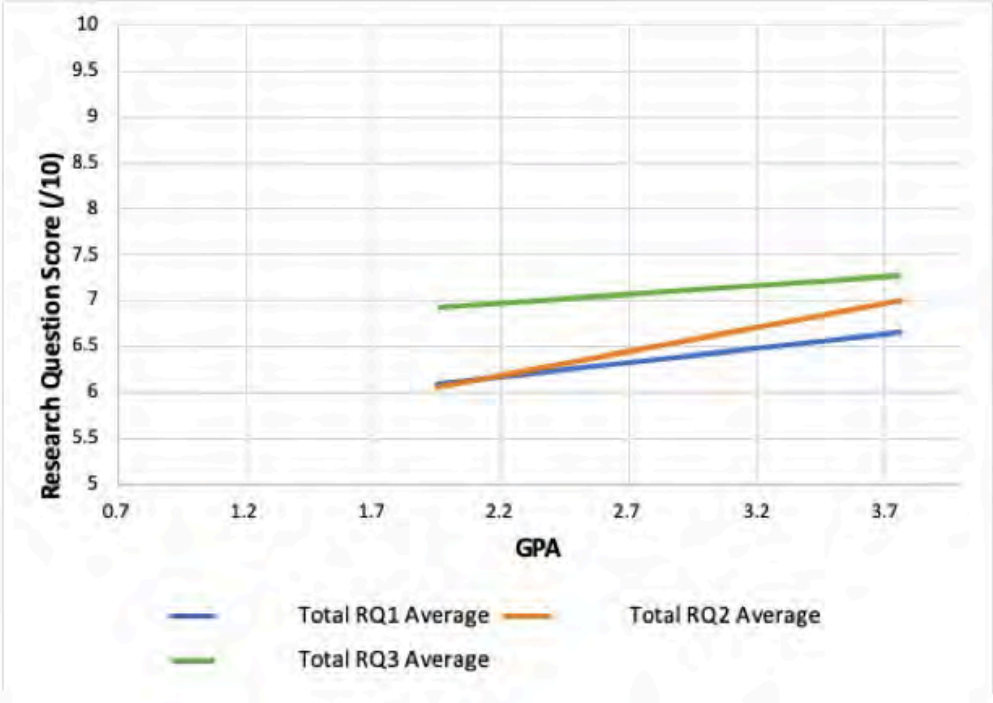


Because the data set includes writing samples from students across a range of grades, it is possible to consider whether improvements in the quality of the research question vary by students'

academic standing.[2] Figure 5, below, shows the relationship between a student's research question score and their GPA. Mirroring the trend depicted in Figure 3, the line representing RQ1 is lowest, followed by the lines representing RQ2 and RQ3. As GPA increases, so too does the quality of the student's research question. But note, too, that the gaps driven by GPA are minimized over the course of the assignments. Students with a GPA of around 2.0 registered a large gap between RQ1 and RQ3, while students with higher GPAs had smaller gaps between the first and last research questions. The line representing growth in the quality of RQ3 is relatively flat. Altogether this figure indicates that stronger students see smaller changes in the quality of their research question across the three phases of the assignment, and that the students with lower GPAs see the most improvement in the quality of their research question by the final assignment.

Figure 5

GPA and Research Question 1, 2, and 3



Overall, the various measures presented above about the quality of the research question over three phases of the assignment suggests that the current design of the course improved students' ability to write a good quality research question. Across all indicators, the quality of the students' research question is, on average, highest at the final submission. This pattern is particularly pronounced for students on the lower end of the range of GPAs held by students. Thus, the design of the course is impactful for all, but especially for students that may struggle more academically.

[2] Demographic data were not collected for this study, so GPA is the only variable we used to determine which students benefitted most from the instruction.

Gauging the Student Experience: Tutorials and Writing Improvement

A central feature of the course and therefore the student experience is the weekly tutorials. These tutorials are a central component of the design of the course and to the integration of scaffolded assignments. Indeed, the tutorials teach (and let students practice) "just-in-time" skills related to each of the stages of the major writing assignment and, as such, constitute one of the most important WAC features of the course. It is in tutorials where students receive additional content- and writing-related instruction, receive ongoing and tailored support from their TA, and learn how to integrate the learning of discipline-specific content and their learning from assignment feedback. As mentioned previously, the tutorials centre on both "write to learn" and "learn to write" components, but the emphasis is on learn to write—discipline-specific writing conventions such as those required for writing a literature review, crafting a research question, or integrating and citing sources. Not only do students receive instruction from TAs in the context of the tutorial, but most weeks also involved active learning, individually or in groups. The in-tutorial activities focus on the application of writing and research skills to their topic (e.g., peer feedback exercises and solitary writing and revision activities). In addition, students benefitted from face-to-face contact with the same tutorial TA each week, allowing for frequent support that was tailored to the research interests and research question of the student.

Overall, tutorial attendance was consistently good; of the 40 students in the sample, 95% attended eight, nine, or all ten tutorials and the remaining 5% attended seven of the ten tutorials. This is not surprising, as students are given credit for attendance as part of their final grade. Though noting a relationship between tutorial attendance and writing quality is not a primary goal, it is an important ancillary goal of the research. To that end, we note in a separate analysis not presented here a statistically significant relationship between tutorial attendance and the student's mark on the assignments, such that higher tutorial attendance is associated with a higher mark on the writing component of the course. This effect remains regardless of a student's GPA. (Analysis available upon request).

We turn now to the student questionnaire in order to understand, from their perspective, how the course design contributed to writing improvement. By way of reminder, our discursive analysis shows either a progressive improvement in the quality of students' writing over the three stages of the assignment or a drop in the second stage followed by an improvement in the third submission that exceeds the score in the first stage of the assignment; it also demonstrates that the interventions in this WAC course generate the most learning gains for students who enter the course with lower grades (i.e., "C" and "B" students). The results presented thus far also demonstrate the positive impact of tutorials on student writing performance.

The data collected through the student questionnaire confirm these findings and provide further information about why this approach to academic writing instruction seems to have been effective and, in particular, draws attention to the impact of weekly tutorials. As previously mentioned, the questionnaire focused on aspects of the course that students found most and least helpful to their learning of writing and research skills, and they could select as many answer options as they wanted. Importantly, students were more likely to select multiple elements of the course that were most helpful than they were to select elements of the course that were least helpful. Feedback on assignments and tutorials were most commonly selected as the most helpful forms of support. Notably, the elements of the course that students found to be most helpful for their learning of writing and research skills were those supports that were made possible through the course's participation in our institution's WAC program. Perhaps not surprisingly, students

explicitly identified as most effective those aspects of the course most closely aligned with WAC: the new writing-focused tutorials; the scaffolded writing assignment; the additional time for TAs to provide detailed feedback on student writing; and increased face-to-face contact between TAs and students through tutorials and office hours.

Table 3

Student Survey Feedback on Helpful Support

Most Helpful Forms of Support	%
Feedback on assignments	29
Tutorials	28
Office Hours	22
Nested Assignments	17
Email	3
Time before/after Tutorials	1
Total	100

Overall, students' answers highlight the value of sustained supports in multiple forms, and how the course provides opportunities for students to gain knowledge of research methods, see the intersection with writing, receive writing instruction on the conventions of our discipline, and practice applying all of the above through scaffolded assignments with feedback. There is no single tutorial topic that students rated as most important or most impactful to their learning of writing and research skills. Questionnaire answers frequently mentioned how the tutorials were highly beneficial in providing additional instruction in an organized and direct manner. Students remarked that tutorials provided a deeper explanation of research methods and direction on how course material was applied to the assignments in the course. They also frequently stated how feedback on assignments helped in understanding assignment expectations, and areas of improvement in applying course material correctly. Finally, they mentioned the importance of feedback in knowing if they were "going in the right direction," but also mentioned aligning their efforts with the "expectation of the TA," demonstrating the importance of written feedback and rubrics for communicating expectations.

When invited to note what about the tutorials required change, most students (52%) reported that nothing about the tutorials required adjustment. Most criticism of the tutorial content came from the minority of students who didn't "buy in" to the tutorial focus on assignments and writing skills. This buy-in issue is not surprising. Students may believe they have already been taught about writing and possess enough in the way of writing skills, or may not distinguish between the mechanics of writing (which they believe they already know) and the kind of writing instruction that most writing specialists focus on (such as argumentation). When this is the case, *any* instruction on writing may be regarded as peripheral to the substantive content and may even be seen as repetitive when they hear this messaging across their courses (Burgess-Proctor et al., 2014). Of course, students don't know what they don't know, and the research we have presented here demonstrates that our approach in this course has been effective. In this sense, our course design helps overcome this resistance, and sharing the results of this research with subsequent students has persuaded the less enthusiastic students of the value of our WAC model. Of course, this buy-in issue is not unique to sociology; most disciplines have to actively demonstrate to students that writing is an important aspect of the knowledge production process. And, as Markle (2017) observes, it is always difficult to generate much enthusiasm in our students for research

methods courses like SOC2XX. We should, therefore, expect significant challenges when trying to get students excited about a course that focuses on both research methods and WAC.

Conclusion

Our research demonstrates that the structure of this course—featuring ongoing support in the form of tutorials and face-to-face interactions, as well as a scaffolded assignment structure—facilitates gains in student writing in one important disciplinary convention: the crafting of a research question. Scaffolding assignments is a well-established approach to structuring student learning and assessment, and SOC2XX is yet another demonstration of the benefits of this approach. Students' learning of writing and research skills improved over the course of the term through the use of smaller scale assignments, detailed rubrics, plentiful and ongoing feedback, and reinforcement of both writing mechanics and content mastery through the use of tutorials. The discursive analysis shows improvements in the quality of the students' research questions across the three assignments submitted throughout the 12-week term of the course. This is true overall and across all six assessment criteria.

Tutorials produce learning gains related to students' writing because they contribute to the growth in writing skills and knowledge of research methods through additional instruction and engaging in-person activities, and because they provide a venue for ongoing discussions about assignment tasks and feedback. Feedback provided by students via the questionnaire demonstrate that students have an overall positive impression of the supports provided to them, designed specifically with the learning of writing and research skills in mind. Foremost among these supports are feedback on assignments and tutorials. Importantly, the results also point to opportunities for improvement in the supports provided to students, such as providing greater instruction on how to specify the sociological concepts one is working with in relation to their research topic.

All told, the results affirm the design of the course and the use of resources in terms of its place in the curriculum. Since these findings suggest that writing mechanics and content mastery are interwoven, they confirm that writing intensive courses focusing on writing and content are effective. Furthermore, the scaffolded structure of the assignment into stages makes possible the additional feedback and just-in-time tutorial instruction that students found to be valuable. Overall, then, these results point to the value of a scaffolded design and, importantly, targeting particular courses with funds to help make possible a scaffolded assignment structure. Additionally, *any* gains are positive, but gains in a methods course are additionally noteworthy because it has many challenges, not least of which is demonstrating to students that sociologists engaging in research are not just driven by empiricism but also the logic of theoretical ideas and presenting these ideas and conclusions through writing.

As noted earlier, there were no "D" or "F" students who provided informed consent to have their work included as data in the analysis. Students were invited (by a third party at arm's length to the course) to provide their informed consent during an in-class session, at which point paper copies of the informed consent letter were distributed; given the ways that attendance and performance can intersect, it is possible that this made it less likely that these students would be included in the study. There were also so few of them overall (approximately 10 of the 165 students enrolled in the course). As a result, they are not represented in the data and we acknowledge the limitation of this; more specifically, we cannot speak to the extent to which the findings about writing improvements apply to those students.

Neither are we able to address the question of how well the intervention we describe here supported English Language Learner (ELL) students in the course. Indeed, we do not know how many ELL students were enrolled in the course or even the number who signed consent forms and were included in the study. That said, a finding regarding the conciseness of student writing may have implications for ELLs in future iterations of the course. In our analysis, we observed a relationship between the word count of the student's research question and the research question assessment score it received, such that the more words a student uses, the lower the quality of the research question. This relationship is true at all three assignment phases but is least pronounced by the time of the final written submission when students use fewer words overall. The relationship between word count and quality of the research question could be more pointedly instructed to students at the outset, with some examples of previous students' work, and tied to principles of writing a good research question. This finding may be particularly relevant for ELLs because we know that they typically have a lower lexical frequency profile (LFP) than native speakers of English, and therefore may use more (simple) words than native English speakers. We know that as language proficiency increases, there is usually a corresponding increase in lexical specificity (Crossley & McNamara, 2012; Laufer & Nation, 1995), but this would not happen during a four-month long course. So, ELLs would still likely use more words than native speakers of English and not improve their performance in this criterion. Future research could try to determine whether those students who self-identify as ELLs submit less concise writing than the rest of the class and how this corresponds to the rest of their performance in the course.

A second consideration as we move ahead with SOC2XX is the training of TAs for the course. At our institution, graduate students can be assigned to writing-intensive courses even if they have no experience with writing instruction or as a TA in that course. While they may be knowledgeable in the subject matter, they are likely to be unfamiliar with undergraduate writing interventions. They may also have no experience leading tutorials. As such, there are three significant possibilities for TA training. The first of these is teaching TAs about the principles of scaffolding an assignment into its smaller component parts and how to speak to undergraduate students about this structure in a way that will increase buy-in early. Second, TAs would benefit from a better understanding of how the criteria indicated in the rubrics correspond to the assignments' tasks; understanding this connection would better assist TAs in knowing how to identify avenues of improvement for students. Third, TAs should be trained on how to provide effective feedback on student writing through rubrics, marginal comments, tutorials, office hours, and email. Since this research was conducted, the TA training provided by our institution's WAC program has been revised to include all of these areas of focus. TAs are also introduced to strategies for designing and delivering write-to-learn and learn-to-write activities, facilitate peer feedback sessions, and teach revision strategies, all of which are components of the SOC2XX tutorials for which TAs are responsible.

While SOC2XX has the benefit of additional resources in the form of TA support, it is not always the case that instructors have a cadre of TAs available to facilitate tutorials and provide additional office hours. And yet, TAs provide feedback on writing in much the same way that an instructor would. As a result, our findings about the value of feedback are applicable more generally. A thorough explanation of assignment guidelines that is accompanied by a well-designed analytic rubric provides a solid foundation for student work and, importantly, a powerful tool to communicate feedback. In addition, when students have the opportunity to submit an assignment in stages, as per a scaffolded design, the initial feedback is returned to and built upon. In addition, we noted that the rubric is an important pedagogical tool for facilitating conversations

with students about writing improvement; this is true whether a TA or an instructor has the primary responsibility over grading student work.

Moving forward, a more holistic approach to evaluating the trouble spots and improvements in the writing skills of the students in our programs would be to consider larger components of the student's work to measure other aspects of writing. While a research question is an efficient way to examine improvements in research and writing skills, and is an important aspect of the research work of social scientists, it is only a single phrase of relatively few words. A larger section of student work would allow for an assessment of other dimensions of student writing, including those that cut across most modes of writing, such as paragraph and sentence structure. Perhaps most importantly, larger sections of student work across the assignments in the course would allow for a more comprehensive interrogation of whether student learning is enhanced via the ongoing writing and feedback that are the features of scaffolded assignments and the course structure more generally.

References

Anderson, L. and Holt, M. (1990). Teaching writing in sociology: A social constructionist approach. *Teaching Sociology, 18*(2), 179-184. https://doi.org/10.2307/1318488

Anderson, P., Anson, C., Gonyea, B., and Paine, C. (2009). *Using results from the consortium on the study of writing in college.* Webinar handout. National Survey of Student Engagement. http://nsse.iub.edu/webinars/TuesdayswithNSSE/2009_09_22_UsingResultsCSWC/Webinar%20Handout%20from%20WPA%202009.pdf

Bean, J. (2005). Transforming WAC through a discourse-based approach to university outcomes assessment. *The WAC Journal, 16*, 5-21. https://doi.org/10.37514/WAC-J.2005.16.1.01

Bean, J. (2011). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. Jossey-Bass.

Burgess-Proctor, A., Cassano, G., Condron, D. J., Lyons, H. A., and Sanders, G. (2014). A collective effort to improve sociology students' writing skills. *Teaching Sociology, 42*(2), 130-139. https://doi.org/10.1177/0092055X13512458

Cadwallader, M. L. and Scarboro, C. A. (1982). Teaching writing within a sociology course: A case study in writing across the Curriculum. *Teaching Sociology, 9*(4), 359-382. https://doi.org/10.2307/1316889

Ciabattari, T. (2013). Creating a culture of good writing: A cumulative model for teaching writing in the sociology major. *Teaching Sociology, 41*(1), 60-69. https://doi.org/10.1177/0092055X12462415

Crossley, S. A., & McNamara, D. S. (2012). Predicting second language writing proficiency: The roles of cohesion and linguistic sophistication. *Journal of Research in Reading, 35*(2), 115-135. https://doi.org/10.1111/j.1467-9817.2010.01449.x

Day, S. (1989). Producing better writers in sociology classes: A test of the writing-across-the-curriculum approach. *Teaching Sociology, 17*(4), 458-464. https://doi.org/10.2307/1318423

Grauerholz, L., Eisele, J., and Stark, N. (2013). Writing in the sociology curriculum: What types and how much writing do we assign? *Teaching Sociology, 41*(1), 46-59. https://doi.org/10.1177/0092055X12461453

Graves, R., & Graves, H. (2006). Composition in Anglo-Canadian universities: Past, present, and future. In R. Graves & H. Graves (Eds.), *Writing centres, writing seminars, writing culture: Writing instruction in Anglo-Canadian universities* (pp. 297-318). Trafford Publishing.

Hudd, S. S., Sardi, L. M., and Lopriore, M. T. (2013). Sociologists as writing instructors: Teaching students to think, teaching and emerging skill, or both? *Teaching Sociology 40*(1), 32-45. https://doi.org/10.1177/0092055X12458049

Hunt, R. (2006). Writing under the curriculum. In R. Graves and H. Graves (Eds.), *Writing centres, writing seminars, writing culture: Writing instruction in Anglo-Canadian universities* (pp. 371-383). Inkshed.

Kaler, M., & Evans-Tokaryk, T. (2019). Reflecting on assessment: Strategies and tools for measuring the impact of a Canadian WAC program. *Discourse and Writing/Rédactologie*, *29*, 107–132. https://doi.org/10.31468/cjsdwr.737

Karcher, B. C. (1988). Sociology and writing across the curriculum: An adaptation of the sociological journal. *Teaching Sociology, 16*(2), 168-172. https://doi.org/10.2307/1317417

Kolb, K. H., Longest, K. C., and Jensen, M. J. (2013). Assessing the writing process: Do writing-intensive first-year seminars change how students write? *Teaching Sociology, 41*(1), 20-31. https://doi.org/10.1177/0092055X12448777

Landry, D. L. (2016). *Writing studies in Canada: A people's history*. [Unpublished doctoral dissertation, University of British Columbia.] https://open.library.ubc.ca/collections/ubctheses/24/items/1.0308778

Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics, 16*(3), 307-322. https://doi.org/10.1093/applin/16.3.307

Markle, G. (2017). Factors influencing achievement in undergraduate social science research methods courses: A mixed methods analysis. *Teaching Sociology, 45*(2), 105-115. https://doi.org/10.1177/0092055X16676302

Migliaccio, T., and Carrigan, J. (2017). Producing better writers in sociology: A programmatic approach. *Teaching Sociology, 45*(3), 228-239. https://doi.org/10.1177/0092055X17705702

Parrott, H. M., and Cherry, E. (2015). Process memos: Facilitating dialogues about writing between students and instructors. *Teaching Sociology, 43*(2), 146-153. https://doi.org/10.1177/0092055X14557440

Proctor, M. (2006). University of Toronto: Catching up to ourselves. In R. Graves & H. Graves (Eds.), *Writing centres, writing seminars, writing culture: Writing instruction in Anglo-Canadian universities* (pp. 297-318). Trafford Publishing.

Walvoord, B. E. (2010). *Assessment clear and simple: A practical guide for institutions, departments, and general education* (2nd ed.). Jossey-Bass.

Walvoord, B.E. (2014). *Assessing and improving student writing in college: A guide for institutions, general education, departments, and classrooms*. Jossey-Bass.