Article

Teaching Sociology
39(4) 338–353

DOI: 10.1177/0092055X11418685
http://ts.sagepub.com

"You Have to Absorb Yourself in It": Using Inquiry and Reflection to Promote Student Learning and Self-knowledge

Sarah Nell Rusche[1] and Kendra Jason[1]

Abstract

Inspired by inquiry-guided learning and critical self-reflection as pedagogical approaches, we describe exercises that encourage students to develop critical thinking skills through inquiry and reflective writing. Students compile questions and reflections throughout the course and, at the end of the term, use their writings for a comprehensive analytic self-reflection that examines their intellectual and sociological growth. Following Schwalbe's (2008) urging to emphasize sociological *thinking* over disciplinary nuances in introductory courses, we describe several complementary methods for teaching students how to think like sociologists. We detail five inquiry exercises and three reflection exercises that build up to the final analytic reflection essay. The unique value of these exercises is that students not only engage the course material throughout the course but also learn to examine their own writing as data. In doing so, students learn to value the process of learning, inquiry, and critical self-reflection while acquiring and constructing self-knowledge.

Keywords

student engagement, critical thinking (skills), student writing, student learning, inquiry-guided learning

In our combined experience as sociology college instructors, we have taught at a small liberal arts college, a large land grant university, a historically Black university, a community college, and an online university, with classes ranging in size from 3 students to more than 50. Despite this variety, the exercises described in this article have been employed mostly in institutions with a predominately white student body. That said, the data we present reflect the demographics of the institutions in which we have taught: mostly white working- and middle-class students, with relatively equal numbers of male and female students. Each institution, of course, has its own unique set of challenges, but one thing remains constant—our students' overwhelming struggle with developing critical thinking skills. We challenge ourselves to develop teaching strategies and exercises in each course that will help our students realize the goal of becoming independent critical thinkers while heightening their sociological perspective. Two approaches are successful time after time: inquiry-guided learning (IGL) and critical self-reflection. These approaches give us a unique and intimate look into our students' development as critical thinkers and give the students an opportunity to discover their power as creators of knowledge and actors in the world around them. In the exercises we present, we describe how we foster students'

[1]North Carolina State University, Raleigh, NC, USA

Corresponding Author:
Sarah Nell Rusche, North Carolina State University, Sociology and Anthropology, Box 8107, Raleigh, NC 27695
Email: sarahnell.soc@gmail.com

critical thinking development through inquiry and reflection.

A combination of teaching approaches and philosophies informs the design of these activities. First, the scholarship of teaching and learning provides immense inspiration on both the practical and philosophical levels, a key one being that teaching has become a public endeavor in that experiences are both shared and critically examined (Grauerholz and Zipp 2008; Shulman 2000). Second, critical pedagogy, an approach to education that emphasizes developing students' critical consciousness where students' knowledge and voices are valued and incorporated into the learning process within a democratic, organic, and dialogical learning environment (see Freire 1970), serves as a philosophical map on our pedagogical journeys. We lean heavily on the teaching philosophy of bell hooks (1994, 2003), who "believe[s] that our work [as college instructors] is not merely to share information but to share in the intellectual and spiritual growth of our students" (1994:3). Third, IGL emphasizes the importance of providing opportunities for students to engage the material with their own questions and concerns, rather than providing them with the only "correct" interpretation. Drawing on these pedagogical approaches in combination, we have developed a series of inquiry-based critical self-reflection exercises and a comprehensive analytic essay that foster inquiry, reflection, and the development of self-knowledge.

We find that students typically find this series of inquiry-based critical self-reflection exercises—and the final analytic reflection—less intimidating than traditional quizzes and exams. We use these exercises not only to assess their performance but also to foster dialogue in the classroom and to encourage reflective writing on the course readings. We believe teaching and learning is an active process of reciprocation between the instructor and students in the college classroom. There are many ways to engage our students with sociological material through discussion, writing, media, and other visual aids, but here we focus on how inquiry-based writing integrates the course material and our students' lives and experiences to enhance critical thinking skills and self-reflection. The unique value of these exercises is that they combine critical self-reflection with IGL, rather than focusing on one or the other.

In this article, we offer instructors tools to experiment with and practice reflective writing using IGL. First, we introduce critical self-reflection and IGL as pedagogical approaches, then we provide how-to's in the sections "Five Ways to Use Questions in the Classroom" and "Three Ways to Practice Critical Reflection." These exercises are designed to be used in combination but can just as easily be used as stand-alone activities. Next, we detail the more comprehensive 'Final Analytic Reflective Essay,' which we see as the culmination of course-long critical engagement. Finally, we provide evidence of our own students' growth as critical thinkers in the section 'In Their Own Words.' As we will demonstrate, students learn to measure their intellectual and sociological growth for themselves.

CRITICAL SELF-REFLECTION

Critical self-reflection not only improves students' critical thinking skills but also helps students develop self-knowledge. Just as C. Wright Mills (1959) urged us half a century ago, it is essential to grasp the interplay between the sociohistorical context at large and our own personal biographies. This approach to teaching sociology requires a commitment to this philosophy and the belief that students will develop a firmer grasp of sociology if they recognize themselves as actors in social life and not merely as passive students learning these concepts in the abstract. This approach is consistent with a humanistic sociology tradition that "elevates the subject/actor to the center of the analytical stage, emphasizes the examination of subjective existence and objective conditions, and pays close attention to the phenomena of human consciousness and meaning" (Goodwin 1987:16). Thus, critical self-reflection encourages students to examine the connections between their experiences and the broader structural conditions of society and to develop a type of consciousness that leads them to behave with humanistic principles (Goodwin 1987).

In the introductory chapter of his "anti-text" book *The Sociologically Examined Life*, Schwalbe (2008:2-3) distinguishes between two potentially competing ways that introductory sociology is typically taught: (1) sociology as an academic discipline and (2) sociology as a practice in which we

make sense of the social world. As Roberts (2002:2) notes, "Teaching *only* the content of our discipline may do our students a disservice." Similarly, arguing that students are less interested in what sociologists say to each other about social life, Schwalbe (2008) offers a way to engage students in examining social life—and their place in it—for themselves. Throughout the book, students are encouraged to become sociologically mindful. While this book is extremely useful in achieving these learning goals, it is not necessary. We offer a more nuanced discussion of book selection later.

Our inquiry-based approach offers students the opportunity to examine their everyday lives and experiences as they pertain to sociological material and thus learn to see the interplay between biography and sociohistoric context (Mills 1959; see Hoop [2009] for an alternate view). Writing moves the writer "from the very personal and private to the larger social context of considering one's audience, the conventions of writing, and other structural (or public) issues and back again to the private and personal" (Roberts 1993:317). We use these principles to show that critical reflection through writing, rather than just thought or discussion, compels students to interrogate their beliefs and perspectives on reality by acknowledging how they influence, and are influenced by, their social realities and the social world around them.

Goodwin (1987:17) suggests that by "listening intently" to our students we "become one with them." Although Goodwin (1987) was talking about how listening to verbal and nonverbal cues in the classroom can improve our teaching, we suggest that this also applies to improving our students' critical reflective writing. By intently, and regularly, reading students' reflections—through which they are often grappling—we can understand how they are experiencing and digesting the material. Generous with constructive feedback and questions, we engage our students in dialogical reflection.

Using our approach, inquiry is the first step to critical reflection. Students can use questions as a sounding board to express an original idea or undeveloped analysis. Students can also use questions to further process issues that came up in their reflections. Students' questions are the building blocks of classroom engagement, and they provide us the most genuine insight into how our students are experiencing and managing their new sociological awareness.

INQUIRY-GUIDED LEARNING

Inquiry-guided learning (also called inquiry-based learning or guided inquiry) is an inductive method of teaching. Inductive teaching is based on the claim that knowledge is built from learners' experiences and interactions with phenomena (National Institute–Landmark College 2005) or, more specifically, by presenting students with a specific challenge for them to analyze and solve with facts, skills, and conceptual understanding (Prince and Felder 2007). Although most popular in fields such as chemistry (Ball et al. 2004; Barak and Dori 2005; Zoller 1999), microbiology (Hyman and Luginbuhl 2004), and physics (Abell 2005; Volkmann and Zgagacz 2004), it has found its way to humanities and social sciences (Justice et al. 2001), history (Slatta 2004), foreign language (Kennedy and Navey-Stokes 2004; Luke 2006; Malinowski 2004), and music (Kramer and Arnold 2004). Sociologists have embraced the method as an exemplar of the social construction of knowledge—one of the field's fundamental principles (see Atkinson and Hunt 2008 for examples). IGL is a pedagogy that submerges students in the process of knowledge creation and seeks to motivate students through inquiry and research. It emphasizes active investigation and knowledge construction instead of passive memorization and deductive reasoning (Slatta and Atkinson 2007).

IGL is a definitive break from the traditional positivist and deductive model of higher education. Unlike deductive methods, which are highly structured and content heavy, IGL does not have a set of defined activities or boundaries. Instead, it incorporates semistructured and guided exercises that pose creative challenges, employ purposeful ambiguity, and provide constructive criticism. Instructors who create an IGL environment not only prepare their students to be successful in their courses but help their students build a skill set valuable for lifelong learning that includes independent inquiry, critical thinking, and reasoned judgments (Felder and Brent 2004). IGL techniques also nurture intellectual growth and maturity by holding students responsible and accountable through self-directed learning. This aspect of IGL is

a fundamental guiding principle for the development of the exercises we describe here.

IGL is a student-centered learning process that includes questioning, investigation, interpretation, and guidance. Although knowledgeable in the field, the instructor is not the absolute owner of the "right answer" or an "expert" but is a facilitator in the classroom (Reimers and Roberson 2006). The targeted outcomes of this approach are that students be able to systematically criticize, justify, solve, and appraise the right answers through a variety of teaching and learning strategies. Research on inductive teaching and learning instructional methods demonstrates evidential support for the idea that students learn best when they can fit "new information into existing cognitive structures" (Prince and Felder 2006:124). In other words, students are more likely to learn if they are able to connect the new information to what they already know.

Research has also shown that inductive teaching methods are superior to deductive methods (Haury 1993; Smith 1996) since they encourage students to adopt a deeper approach to learning (Coles 1985; Norman and Schmidt 1992; Ramsden 2003) and foster students' intellectual development by taking responsibility for their own learning, by questioning authorities rather than accepting their statements at face value, and by attempting to understand new knowledge in the context of their previous knowledge and experience (Felder and Brent 2004). Specifically, Rubin (1996) found that IGL was more effective than traditional instruction in cognitive (i.e., conceptual and subject learning, reasoning ability, and creativity) and noncognitive (i.e., manipulative skills and attitudes) learning outcomes. In another meta-analysis, using thousands of students and analyzing the results from 81 experimental studies, Shymansky, Hedges, and Woodworth (1990) found that IGL yielded significant positive gains in students' academic achievement, perceptions, process skills, and analytic abilities.

As a skill set, students should learn to "formulate good questions, identify and collect appropriate evidence, present results systematically, analyze and interpret results, formulate conclusions and evaluate the worth and importance of those conclusions" (Lee et al. 2004:9). In a study of inquiry-based courses across different disciplines at North Carolina State University, Lee (2004) reported improved critical thinking skills among the top student outcomes in all courses. This is an immensely valuable pedagogical finding. Many instructors desire for their students to develop this skill and/or hold critical thinking skills in high regard but often do not have a definitive process to measure their students' success at attaining this learning outcome.

Putting Inquiry to Work

Prince and Felder (2006) suggest that IGL is the simplest of all the inductive teaching methods and the best one to begin with for inexperienced or previously traditional instructors. However, the task of teaching students to think critically can be intimidating for any instructor. Fortunately, the most basic level of IGL is simply to ask a question, which is easily accomplished through writing. Writing is a staple in many classrooms and a common pedagogical approach to getting students to think critically in any discipline. From comprehensive essays, term papers, and even daily free writes, writing is an articulation of student cognition and engagement with the course material. Put another way, "To write is to freeze one's thoughts on paper" (Roberts 2002:9). Bean (2001) provides a multitude of writing activities that promote writing as a thinking process. One of Bean's (2001) basic principles, taken from John Dewey (1916), is that critical thinking is rooted in a student's engagement with a problem, and students must be made aware of the existence of problems all around them. Here we present activities that ask students to problematize everyday life, ask questions, and think critically; these can easily be adapted into regular use in a variety of sociology courses.

In our classes, our primary learning objectives, apart from specific sociological goals, are that (1) students will become engaged readers and deep critical thinkers; (2) students will practice inquiry by asking questions about and reflecting upon course readings; (3) students will examine the sociological underpinnings of their everyday lives, learning to connect their personal biographies with the broader sociological context; and (4) students will read, write, and think like a sociologist. To achieve these goals, we carefully select course

readings, films, and assignments that foster critical thinking, inquiry, and reflection about the social world that students inhabit. Schwalbe's (2008) *The Sociologically Examined Life* is an obvious choice, though not the only one. As we have mentioned, this book largely inspired the exercises discussed in this article. Sarah has successfully paired *The Sociologically Examined Life* with the reader *Understanding Society* edited by Andersen, Logio, and Taylor (2008). We prefer to use a reader rather than a traditional textbook because we find most textbooks to be written in ways that simply convey information rather than provoke thought. This is not always the case, and some textbook authors have done a good job encouraging critical thinking within this format. On another note, we find that when a text is paired with a reader—such as McIntyre's (2006a, 2006b) *The Practical Skeptic* text and reader, or some other combined set—these exercises are effective for achieving our learning objectives.

Concerning grading, we typically do not give traditional quizzes and exams in these courses but, rather, prefer alternate ways to assess student work.[1] This is not to say that these learning outcomes cannot be achieved with traditional testing, but as Bain (2004:24) points out, "good" students who excel on tests and similar assignments may have simply learned to "'plug and chug,' memorize formulae, stick the right vocabulary in a paper, [yet] understand very little. [They often] quickly forget much of what they 'learned.'" Requiring students to connect sociological concepts, materials, and perspectives to their everyday lives and the real world is critical for the content and perspective to become part of their intellectual repertoires. We firmly believe that "the best teachers assume that learning has little meaning unless it produces a sustained and substantial influence on the way people think, act, and feel" (Bain 2004:17).

Personal reflection and inquiry are best achieved through writing than with multiple-choice assessments. Through trial and error, we have created assignments that are relatively easy to manage in terms of workload. Here are some tips for managing the workload without sacrificing the inducement to inquiry and critical reflection for your students: (1) Try incorporating online discussion boards—grading will be faster; (2) alternate when things are due—if you use a combination of question cards (QCs) and reflection papers, try making the QCs due on Tuesdays, for example, and the reflections due on Thursdays; (3) require the students to write a predetermined number of reflections during the semester—for example, you could say they must write 7, 10, or 13 reflections on readings of their choice, or you may choose to require them to write about particular readings; and (4) if you feel the exercise is useful for them for every reading, but do not have the time to grade all reflections for each class period, you can choose to collect randomly a predetermined number (depending on class size); this way, all students must write each day, but you will not have to grade reflections for students each day.

Whether we use in-class discussion, online discussion boards, or written assignments as part of a reflection, this part of the assignment requires students to ask questions that engage the reading. Sarah often says that questions are like shovels—you use them to dig deeper. Thus, the questions posed should not be surface questions but, rather, reflective and deep, with the potential to spur a discussion even if "the" answer is never discovered. The questions should also be concretely related to a specific idea raised in the reading. For example, one of the first readings in Kendra's Introduction to Sociology course is "The Promise" from C. Wright Mills's (1959) *The Sociological Imagination*. Mills described how using a sociological perspective, rather than individualism, to explain peoples' circumstances will reveal a broader and more accurate view of reality. He argued that we should examine the social circumstances, or social forces, that influence a person's social environment and experiences. Students are required to ask a question or two after reading this excerpt. Kendra gives her students these two examples to follow:

> It seems as if Mills wants us not to hold people accountable for their actions and to just blame society. How do we help society and the people in it if we do not start by helping one person at a time?

> I thought sociology was about people and their problems, but all we have discussed so far has been about society, groups, and cultures. I understand why sociologists study in this way, but when do they focus on the individual?

Table 1. Do's and Don'ts for Asking Questions

Do	Don't
Stay focused on the material	Get carried away with rants or praises
Ask more than one question when necessary	Ask too many "why" questions; instead, try "how" questions
Give your readers something to work with and respond to by encouraging them to use the course material to respond	Ask leading questions or ones that only solicit opinions
Refer to specific arguments, authors, and page numbers when appropriate	Ask questions for which there is only one correct answer
Ask questions that foster deep thinking	Ask questions that ask the reader to regurgitate information

As seen in these examples, these questions do not require the student to apply sociological concepts, synthesize information, or show deep comprehension of the reading prior to discussing or turning in the question. These questions show curiosity, confusion, and even a little frustration—all great starting points for critical thinking!

The best questions will generate a discussion that is grounded in the arguments presented in the reading. To encourage good questions from the start, we give students a Do's and Don'ts list to guide them (see Table 1). Weak questions are those such as "Who wrote *The Sociological Imagination*?" "Did you like the reading?" or "What is the definition of sociology?" The answers to these questions are important, for instance, when trying to understand debates in the literature, how the sociological definition differs from the everyday definition (e.g., racism), or when gauging students' interest levels. We are not implying that definitions or basic information are unimportant. In fact, grappling with definitions *can* promote higher order thinking and lead to discussion, but we urge students to ask questions for which an answer is not immediately available. Close-ended questions that do not demand discourse or debate and questions that simply require students to read and regurgitate are critically weak and need improvement.

Critically weak questions are weak because they do not go beyond the text or a simple answer. For example, the question "Did you like the reading?" can be improved by asking "Which of the author's arguments did you find most compelling and why?" The latter cannot be answered with a simple yes or no—the text must be interrogated to arrive at an answer.

This is a good time to make the point that inquiry is about just that—inquiry. It is not necessarily about answers but about the process of inquiry and engagement. Additionally, what is considered a good question may change throughout the course. What is a good question early on may prove to lack depth and complexity later on—students' question-asking skills should develop and improve. Their questions should become more complex. As we discuss below, students eventually begin asking more than one question in trying to examine a problem—one question tends to be insufficient after a while because students have a heap of sociological knowledge shaping their thinking and allowing them to make connections.

We cannot stress enough the impact your guidance will have on students' improvement. Students will need some help—they will undoubtedly write some poor questions. We urge you to remember that students' relationship with questions tends to be one in which they are expected to answer questions correctly—they are not accustomed to being the ones asking the questions. Your encouragement and guidance are crucial as they develop their inquiry skills. We are generous with feedback, comments, and suggestions that offer different ways to word questions or different points to focus on. In helping students develop their own inquiry skills, we have found our own to improve as well as we guide them in this intellectual process!

Name: _____ ***Question Card #***____ ***Date***_____

Reading Assignment: Author (s): C. Wright Mills "The Promise" (p. 1-6) in Text/Reader

Example Question #1

It seems as if Mills wants us not to hold people accountable for their actions, and to just blame society. How do we help society and the people in it if we do not start by helping one person at a time?

Figure 1. Question card template

Good Questions Lead to More Questions

As we have said, students must learn to get past asking questions that have definitive answers and instead ask questions for the sake of inquiry. We think sociology lends itself to this type of inquiry, so this strategy is doubly effective. Many students used the concept of "web of causality" or "swirl of contingencies" to explain how they came to understand their improved question asking (Schwalbe 2008:143). These terms suggest that there is rarely one thing causing a social problem—typically, there are several possible conditions of social life that contribute to the problem, creating a tangled "web of causality" or a "swirl of contingencies" (Schwalbe 2008:143). They realize that the more they consider such complexity in their reflections, the more questions they have. In other words, one scoop with a shovel rarely gets students to the bottom of whatever it is they are digging; the more complex their thinking becomes, the more questions they have to ask. They learn to see that good questions lead to more questions, which can ultimately lead to a more in-depth understanding of a complex problem that has undoubtedly many different answers—answers that are not definitive but, rather, that depend on evidence, perspective, and/or context. This lack of certainty is uncomfortable for them at first (and for some, throughout the course). Yet, overall, this helps them see that the complexity of social life cannot be boiled down to one simple answer or statement. It is complicated, and to understand it deeply, we have to ask a lot of questions.

Five Ways to Use Questions in the Classroom

We have found that it is best to require students to write questions as a part of their reading assignments. We have our students bring their questions from the reading on index cards (or half sheets of paper) that clearly present the student's name, QC number (optional), date, reading assignment, and question (see Figure 1). These are called *question cards* (QCs). The questions can then be used for a variety of course activities. Below, we discuss the use of questions in the classroom and suggest grading tips for each exercise. QCs can be used in large and small classes. Instructors of online courses or in virtual classrooms can apply the same principles of the in-class QC to the virtual classroom through discussion boards or e-mail. We have both had success incorporating these strategies online.

QCs can be used in the following ways:

1. One-on-one exchange. Have your students turn their cards in. Provide the student with a one- to two-sentence response or answer in writing before returning the QC. This allows a brief one-on-one exchange between the instructor and student on a regular basis. These cards can be worth zero to two points each. Two points can be given for complete questions and following directions; one point for weak questions; and zero points for either not turning in the card or failing to make an honest attempt at an analytic question. These criteria would be based on the instructor's discretion for where the student should be, analytically, in the course. If

limited by time or by large classes, it is also an option to go through the cards and offer a checkmark for participation.

2. *Classroom fodder.* At the beginning of class (or the day before, if they turned them in during a previous class), we go through the cards and split them up by themes (e.g., theory application, real-life examples, needs clarification on reading, and critique of author). By doing this, we can see what themes emerge as points of interest and/or confusion to our students, and we do not waste time with a prepared talk that goes over the students' heads. We then tackle each theme in class discussion and answer their questions by themes rather than individually. This is not a graded assignment but one used for in-class discussion and participation.

3. *Game days.* QCs can be used as quiz information on question-and-answer games. One of the most popular is a sociologically themed Jeopardy.[2] Simply separate the cards by themes (either assigning students a theme and asking them to formulate new questions or using what they turned in, as described above) and mark the cards' point values by the depth of critical thinking needed. Grading on game-based assignments can be competitive or noncompetitive. Instructors have the option to avoid grades altogether, count the assignment toward participation, or give the winning students extra-credit points or other rewards.

4. *Pair & Share.* Pair & Share was derived from Kagan's (1994) collaborative learning model Think-Pair-Share and is usually a short-term partnering such as one class period or assignment. These activities are great for more intimate interpersonal and intellectual exchange between students. With these activities, we use the QC or a general question as the focus of the activity. We highly recommend that you build time into the class day to discuss each pairing's response to the questions. This creates more of an organic learning experience, where the content grows out of students' sociological interests and adds to the diversity of perspectives and ideas that individual students must deal with. We suggest points be accredited to participation or toward in-class activities based on the instructor's curriculum.

5. *Journal partnering.* With journal partnering, students pick, or are assigned, long-term partners. Instead of turning in the QCs to the instructor, the students keep electronic journals that they pose questions in and exchange with their partners for one-on-one discussion. This gives each student time to build an intellectual relationship with another student and fosters personal growth as a thinker by exchanging ideas back and forth. The instructor can collect the electronic journals several times throughout the course to check in and review the exchanges and give feedback.[3] Students can rotate a few times throughout the term or can have the same partner for the duration of the course. In our classes, this journal assignment is a major project that has more weight in overall grading. As we collect the journals through the semester for feedback, we give points for following directions and keeping up with the readings and partners' questions and for the quality of question content. The students then use their journals to complete their final analytic essays (described below).

FROM QUESTION ASKING TO CRITICAL REFLECTION

Critical reflection can be free and open or structured and formulaic. The purpose of reflection in either case is that it provides students with the opportunity to write after they read, thus minimizing the all-too-frequent loss of information. Sarah discusses the purpose of these writing exercises by asking the class, "How many of you read an assigned reading, shut the book, and five minutes later forget everything you just read?" Most students enthusiastically nod or raise their hands in agreement. Sarah promises that this reflection writing will help with that problem because reflection insists that they *process* what they just read, not through summarization but through application. This improves not only their memory of the reading but also their understanding.

When students write critical reflections for assigned readings, they are offered the much needed space to reflect upon the critical sociological understandings of society and their place in it. A critical reflection should include a basic summary of the argument, followed by an examination of the student's reaction to the argument and/or connections to other course material. Different from merely stating their reactions or opinions, critical reflection requires students to look inward

and interrogate the underlying sociological meanings of their responses. For example, students often experience frustration at Schwalbe's (2008:38-40) argument that hiring a maid to solve the problem of household division-of-labor inequality reproduces inequality in a number of ways. Upon examination of their feelings about this argument, many students learn that their resistance comes from their childhood memories growing up with a maid whom their family treated "very well" or as "part of the family"; they are not bad people who reinforce racism and sexism. Giving students an opportunity to "write it out" not only can alleviate some frustration but can significantly deepen their grasp on the material, even when they do not like it or agree with it. Writing also directs students' frustrations away from the instructor and provides a space for them to wrestle with controversial topics, often lessening the contestation in the classroom. Our job is to guide them through this process of self-inquiry and self-reflection, providing the inductive tools necessary to address their emotional responses to these inconvenient facts so that they are able to articulate a sociological understanding of the phenomena. We do this by allowing them to process the ideas and emotions that emerge from their questions through reflective writing.

Three Ways to Practice Critical Reflection

1. "Free" reflection. In a "free" reflection, the students can write about whatever they want, pertaining to the assigned reading. A page limit or guideline is important to set (one page or 15 focused minutes is appropriate) so that students write enough without going overboard. When given this freedom, many students develop their own reflection style that works for them. This is rewarding for them since they take an active role in their learning by setting the parameters by which they reflect on the reading. We typically grade these using a zero, one, or two, accompanied by guiding comments and questions. A two is a complete and well-written reflection; a one reflects some deficiency, either in length, content, or depth; and a zero is given for failing to complete the work or failing to follow directions. A similar rubric can use a check, check-minus system.

2. Reflection accompanied by questions. The ultimate combination of inquiry and reflection is achieved when a reflection—free or structured—is accompanied by questions. By incorporating both inquiry and reflection, not only do students inquire and reflect on the readings, but their questions often grow out of their reflections and tend to be, overall, better and more engaging than questions without accompanying reflections. These reflections and questions can be graded as described above. We have also scored two points per part—two for the reflection and two for the questions.

3. Structured reflection. A structured reflection can take any form that makes sense to you or suits your assigned readings. One format that we have had success with is the Quotation, Concept, Comparison, Questions (QCCQ) format. The students are asked to select a quotation from the reading (2-4 sentences) that they feel captures one of the main arguments presented in the reading. After the quotation, they summarize—in their own words—the concept or idea that the quotation captures. Next, they compare or relate this reading to another reading from the unit. This is sometimes a very challenging task for students because it requires higher order thinking (see Bloom's [1956] *Taxonomy*) to make linkages between discussions that may seem only tangentially related. Finally, the students, taking all of this in, ask critical thinking questions to deepen their learning and/or generate discussion. This format has worked well as a discussion board prompt in an online class where students, in addition to posting QCCQs, are required to respond to the questions other students ask. Grading these can be simple because of the structure. Each part of the assignment can be worth one point, for a total of four points. Providing a grading rubric with your specific criteria will help the students do well. In our experience, most students lose points at the beginning but eventually get full points nearly each time once they understand the process.

FINAL ANALYTIC REFLECTIVE ESSAY

Any combination of inquiry and reflection serves as a course-long cumulative exercise that builds up to a final project—the final analytic reflective

essay. The final analytic reflection works toward three key student learning outcomes: (1) to analyze and discover patterns in data; (2) to maintain critical engagement with course material; and (3) to examine students' growth as thinkers. Data from these essays show that students gain additional benefits from this final reflection, including how to gain and assess self-knowledge and how to use teacher comments as guides rather than criticism as well as some general lessons about the process of learning and about themselves.

At the end of our course, we present students with the opportunity to examine and show their growth as critical thinkers as it applies to substantive course material. Whether it is reflection papers, QCs, written discussions, or some combination of these, the students will have collected enough to examine and evaluate their intellectual and sociological growth by analyzing and discovering the patterns in their data. On average, students will have anywhere from 12 to 30 pieces of their own personal data to examine. By putting these materials in chronological order (from first to last written), the students can get a timeline of their progress in the course—both intellectually and sociologically. Many students briefly describe each reflection or question in turn, pointing out the improvements, "aha" moments, and turning points in thinking. (See Appendix A for assignment instructions and Appendix B for grading rubric).

In Their Own Words

At first glance, it may seem as if students would be rebellious or would complain about the amount of writing required for these exercises, but we have found through our university student evaluations and direct feedback from our students that since the writing is cumulative (daily questions, spews, and short assignments) and these assignments replace other types of assessments such as weekly quizzes or exams, they generally do not feel the courses have heavy workloads. This can also be attributed to the fact that by the end of the course students are not writing traditional objective term papers or summative reports but, rather, writing in a way that synthesizes sociological content, everyday life, and their self-awareness of analytic growth. Some who did feel the workload was heavy often said that it was worth it or that they understood why it was heavy. The most common feedback we receive about workload, other than "NO tests!" is "that you must do the reading to be successful in this class." Below are some examples of the patterns students discover when they analyze their questions and reflections toward the end of the course in comparison to the ones at the beginning of the course:

> I wasn't reflecting, I was summarizing. All I did was regurgitate the reading instead of engaging it.

> [In the first reflection] I was rambling on about nothing. I was very confused as to what Sociology was. . . . I now look back and giggle to myself because I now understand what Schwalbe and other sociologists are talking about.

> My [early] questions clearly lacked depth . . . or had nothing to do with the actual text. I was stubborn and *refused* to listen to what sociologists had to say . . . after reading through [my questions and reflections] I was shocked at the clear progress that has taken place.

Students often express the anxiety or deficiencies they experienced at the beginning of the semester either with the assignment or with sociology in general. Here we see that the students self-identify the intellectual weaknesses they experienced at the beginning of the course and also identify *how* they have grown in their question-asking skills. It is important that our students' critical thinking skills grow in general, but we also aim to make this growth sociological. Next, we describe several functions of these exercises as learned through students' final analytic reflections.

Maintain Critical Engagement with the Course Material

The opportunity to revisit the material from the entire course helps students think about the material in a new way. By revisiting this while focusing on their own learning processes, they are also able

to see how they grappled with sociological content. Several students reveal that they found their earlier reflections and questions to be close-minded or individualistic.

> These assignments made me realize just exactly how close-minded I was rather than open minded like I thought I was. . . . [T]he way I view the world, people, and situations I am in will never be the same after this class.

In other cases, students realize that they had a particular strength or substantive interest. For example, several students identify their skill in asking empirical questions or asking questions that were focused on finding solutions to social problems. Other students developed substantive interests in topics such as race, gender, or culture, and this interest was obvious in subsequent writing.

> I have also learned that there are inequalities in everyday life. After this class, I have recognized that there are people who judge each other by gender, class, and race. Some people have more privileges than others because of inequalities and other people have fewer privileges then [*sic*] others because of inequalities. All of these concepts have stuck with me throughout the class and will continue to be in my everyday life. I will try not to stereotype others, I will understand the inequalities that are in today's society, and appreciate the privileges and life that I lead today.

As these students show, inquiry and reflection help them maintain critical engagement with the course material. Whether the students describe their improved focus on the material and course work or the bigger-picture connections they make to their own lives, their engagement is strengthened through these exercises.

Examining Their Growth as Thinkers

In this section, we describe what students gain from the assignment that contributes to their intellectual growth as thinkers and/or budding sociologists. The quotations below reflect students' expressions of what they have learned about their learning processes and what they will take with them beyond an introductory sociology course.

> Sociology is not just something that you memorize in a textbook . . . you have to absorb yourself in it. . . . It was not very apparent [to me] while going through the course that my brain was starting to make [a] switch. But . . . now, I can see the change. My first reflection was strictly text-book because I had to learn what sociology was. But when I was working on my later entries, I never was like "now what is sociology again?" I no longer had to think about how to use sociology. It was almost like riding a bike—once you figure it out you can ride wherever you want. You don't get back on and have to relearn it again and again.

> Sociology class has without a doubt changed my life forever. I will never be able to look at movies, people, or situations the same way and I am grateful for that. I will be able to use my knowledge on society and the people living in it, when I become a teacher.

These students' quotes not only demonstrate the challenging skill and perspective that learning to think sociologically is but also point to the practice of inquiry and reflection as skill building that equips students to *do* something. As you will see below, these final reflections also lead students to identify their shortcomings in open-mindedness or work habits. This is a skill that will serve them no matter what they do.

> There were a lot of questions [I asked] that I was not able to answer. Regardless if these particular questions of mine seemed to be unanswered in class, this seemed to exhibit my deepened thought process. . . . I felt by contemplating on these questions that were left unanswered was a personal effort [that] helped me to recognize some minor blind spots in order to understand the social world in a more sociologically mindful way, which is the ultimate goal of this course.

> I have always been a huge procrastinator but when it came to the reflection assignment I found that I was not able to procrastinate nor did I want to. I personally can tell in each reflection assignment when I procrastinated and when I took my time to actually process what I had read.
>
> When first told about this essay, I really questioned if my progress in this semester was outstanding enough to portray in an essay. But after reading every single reflection and every [partner] conversation of mine I realized that I really had matured in expressing myself, not only in a sociologically mindful standpoint, but also in general.

Students responded by acknowledging their weaknesses, by acknowledging that they did better when they took it seriously, and by taking responsibility for their learning. This insight demonstrates their improved academic maturity, which they seem to appreciate.

Although students are not asked directly to provide a synopsis of the most important sociological lessons they have learned, many offer these as a way to discuss how they have grown.

> . . . I have also learned a great deal about myself, and while I have always thought of myself as an individualist, open, and realistic person, this class has made me realize that this is not as true as I once believed. However in learning of these shortcomings, I also learned ways to change my views and behaviors so that I can be a better person, a benefit to society, and perhaps even share my knowledge with others so that slowly a positive change can take place in our country, and possibly the world.
>
> Being sociologically mindful is, I believe, important to our lives. It enables us to escape society's cages. It allows us to view things beyond the individual and focus on larger groups to better understand people and interact with them. It helps accept and respect the views of others, their cultures, their norms and their values. It enables us to be aware of and embrace diversity. We should use our differences to better ourselves, not to separate us from others. I have also learned that having the knowledge and understanding the concepts is not enough. The purpose of Sociology is to use that knowledge to better the society in which we live in. It should serve us a weapon to protect and promote diversity all around us.

By identifying their intellectual or academic weaknesses, students are able to see not only how they have grown but also what their tendencies are. Acknowledging these will be helpful to them in other academic endeavors. Students also offer connections between their sociological growth and their intellectual growth. These connections illustrate the opportunity for inquiry and reflection to aid development of sociological self-knowledge.

CONCLUSION

Developing self-awareness is essential for being able to navigate and function in the social world (Schwalbe 2008). We aim to give readers a way to incorporate this idea through exercises that make use of IGL and critical self-reflection. Schwalbe's (2008) "anti-text" is based on the idea that learning sociology can and should be approached as a way of thinking and living in the social world and that as we learn sociology, we should learn to be sociologically mindful. In the spirit of Mills (1959) and at the urging of Schwalbe (2008), whose book our students usually read, we have developed methods to show that student learning does indeed improve when analyzed in this way. Not only do students grapple with the course material all semester, but at the end they reexamine their own grappling and often walk away with a new, more complex understanding of the social world and of themselves.

Hoop (2009) cautions us not to be too naïve about our capacities to teach the sociological imagination but is optimistic about the benefits of incorporating students' lived experiences in the process. As sociologists, we strive to help students acknowledge and understand their social presence. As educators, we strive for our students to be critical thinkers beyond the classroom and even beyond sociology. Writing can be used as a daily and

nonthreatening tool in the classroom (but see Roberts [1993] for all the reasons it can also be threatening—or at least uncomfortable). You may have noticed that we have only suggested grades or points for the assignments here and have described how in some assignments we do not have numerical or alphabetical grades but checkmarks or participation points. This is because we do not want our students to feel that everything they write must be "right" in order to get credit. We want them to experience writing as a means to express themselves and examine the material comfortably, which enables them to get to a place where they can practice inquiry and critical reflection.

Overall, our students have communicated that they feel relevant and that their input is valuable since their input shapes so much of the classroom experience. Our students have also shown growth as intellectual and sociological thinkers. While we are aware that students might be "very good at doing school" (Hoop 2009:49) and thus may tell us what they think we want to hear, we are encouraged and optimistic that these exercises plant seeds, at the very least, that may grow into trees of self-knowledge and change. These exercises have proven themselves to be fun and successful in our classrooms and have served as a happy medium between academic rigor and personal growth for our students.

APPENDIX A

Instructions for Final Analytic Reflective Essay

Compile all of your reflections and questions in chronological order (from first to last). Treating these writings as data, think about them as a larger unit. Look for patterns such as how you ask questions or synthesize readings and how your questions and reflections have improved and deepened intellectually, or patterns in content or interest are all appropriate and likely findings (among others). A good way to see the patterns is to ask questions about the data you are observing. Once you begin to see patterns, give examples that show that these patterns "fit" the data. That is, explain how you know that this pattern is present by using examples from your writing.

The goal of this reflection exercise is for you to take a hard look at your learning processes and critical thinking skills. How are your more recent reflections and questions different from earlier ones? Are they better? More thought provoking? Less interesting? Why? Did you begin to answer your own questions as you learned? Do you seem particularly interested in one aspect of sociology or social life? Is this realization surprising? Why? *To be sure, I do not want your essay to be a laundry list of answers to these questions I have posed. These are just some examples—some guides—to get you thinking*. A true analytic reflective essay will require you to ask your own questions and to determine your own conclusions about what is going on in your writings, based, of course, on what you have learned about sociology, society, and yourself. The authors of the very best essays will take this reflective process quite seriously.

Recall that the major reason for reflecting on the readings and asking questions each day is to sharpen your critical thinking and to get you engaged with the material. **This reflection essay is the culmination of this critical engagement.**

APPENDIX B

Holistic Grading Rubric for Final Analytic Reflective Essay

A	An A essay is very well organized and written and demonstrates *excellent* critical thinking, treating the entire body of tickets/entries to be examined as data. The student makes *excellent* observations regarding data and is able to draw sound conclusions from these and evaluate her/his intellectual and sociological growth. The reflection was well developed and showed depth and understanding of the student's data through logical reasoning. The reflection was founded in evidence, theories, or ideas presented in the student's original questions. The essay shows original thought and complexity of ideas and shows awareness of contradictions and addresses them.
B	A B essay is well organized and written and demonstrates *good* critical thinking, treating the entire body of questions to be examined as data. The student makes *good* observations regarding data and is able to draw decent conclusions from these and evaluate her/his intellectual and sociological growth. A good essay is a well written essay but weaker than an excellent essay in one or more areas. The student may have a strong personal reflection, but it lacks supporting analytic details or lacks balance.
C	A C essay is poorly written but demonstrates *fair* critical thinking and shows difficulty treating the entire body of questions to be examined as data. The student makes *weak* observations regarding data and is therefore unable to draw sound conclusions from these and so is unable to evaluate her/his intellectual and sociological growth. A fair essay shows that the student considered the data but has not developed a thorough analytic response or that the student has developed a reflection disjointed from the history of questions. It may also show that the student put too much time into summarizing the data rather than into an analytic response.
D	A D essay is poorly written and does not demonstrate critical thinking. The student shows difficulty treating the entire body of questions to be examined as data. The student makes *weak* observations regarding data and is therefore unable to draw sound conclusions from these and so is unable to evaluate her/his intellectual and sociological growth. A weak essay is weak in all areas of comprehension due to it being poorly written, inaccurate, or unorganized. This essay shows poor preparation of the assignment or severely lacks analytic development.
F	An F essay does not meet any of the criteria listed above. The student failed to meet the requirements of the assignment.

ACKNOWLEDGMENTS

We would like to thank Christine Mallinson and Michael Schwalbe for reading early drafts of this manuscript. We also extend a big thank you to the anonymous reviewers, whose suggestions were invaluable.

NOTES

Reviewers for this manuscript were, in alphabetical order, Theodore Fuller and Katrina Hoop.

1. When we do use traditional testing methods, these are worth less than the regular and frequent writings in the overall grade.
2. There are many versions of Classroom Jeopardy that can be found online. Most are downloads and electronic.
3. Ask the students to print out the journals in chronological order.

REFERENCES

Abell, Sandra. 2005. "University Science Teachers as Researchers: Blurring the Scholarship Boundaries." *Research in Science Education* 35(2):283-98.

Andersen, Margaret, Kim Logio, and Howard F. Taylor. 2008. *Understanding Society: An Introductory Reader*. 3rd ed. Belmont, CA: Thompson Wadsworth Publishers.

Atkinson, Maxine and Andrea Hunt. 2008. "Inquiry-guided Learning in Sociology." *Teaching Sociology* 36(1):1-7.

Bain, Ken. 2004. *What the Best College Teachers Do*. Cambridge, MA: Harvard University Press.

Ball, David, Mike Wood, Craig Lindsley, Paul Mollard, D. J. Buzard, Randy Vivian, Max Mahoney, and Benjamin Taft. 2004. "Research, Teaching and Professional Development at a Comprehensive University." *Journal of Chemical Education* 81(12):1796-800.

Barak, Miri and Yehudit Judy Dori. 2005. "Enhancing Undergraduate Students' Chemistry Understanding through Project-based Learning in an IT Environment." *Science Education* 89(1):117-39.

Bean, John C. 2001. *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*. San Francisco: Jossey-Bass.

Bloom, Benjamin. 1956. *Taxonomy of Learning Objectives: The Classification of Educational Goals*. New York: D. McKay Publishing.

Coles, C. R. 1985. "Differences between Conventional and Problem-based Curricula in Their Students' Approaches to Studying." *Medical Education* 19(4): 308-09.

Dewey, John. 1916. *Democracy and Education*. New York: Macmillan.

Felder, Richard and Rebecca Brent. 2004. "The Intellectual Development of Science and Engineering Students: Teaching to Promote Intellectual Growth." *Journal of Engineering Education* 93(4):279-91.

Freire, Paulo. 1970. *Pedagogy of the Oppressed*. London: Continuum International Publishing Group.

Goodwin, Glenn A. 1987. "Humanistic Sociology and the Craft of Teaching." *Teaching Sociology* 15(1):15-20.

Grauerholz, Liz and John F. Zipp. 2008. "How to Do the Scholarship of Teaching and Learning." *Teaching Sociology* 36(1):87-94.

Haury, David. 1993. "Teaching Science through Inquiry." *ERIC/CSMEE Digest*. Columbus, OH: Eric Clearinghouse for Science Mathematics and Environmental Education.

hooks, bell. 1994. *Teaching to Transgress: Education as the Practice of Freedom*. New York: Routledge.

hooks, bell. 2003. *Teaching Community: A Pedagogy of Hope*. New York: Routledge.

Hoop, Katrina C. 2009. "Students' Lived Experiences as Text in Teaching the Sociological Imagination." *Teaching Sociology* 37(1):47-60.

Hyman, Michael and Gerry Luginbuhl. 2004. "Inquiry-guided Learning and the Undergraduate Major in the Department of Microbiology." Pp. 129-41 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by V. S. Lee. Sterling, VA: Stylus Publishing.

Justice, Christopher, Wayne Warry, Carl Cuneo, Sue Inglis, Stephania Miller, James Rice, and Shelia Sammon. 2001. "A Grammar for Inquiry: Linking Goals and Methods in a Collaboratively Taught Social Sciences Inquiry Course." In *The Alan Blizzard Award*. St. John's, Newfoundland, Ontario: Society for Teaching and Learning in Higher Education.

Kagan, Spencer. 1994. *Cooperative Learning*. San Clemente, CA: Kagan Publishing.

Kennedy, Ana and Susan Navey-Davis. 2004. "Inquiry-guided Learning and the Foreign Language Classroom." Pp. 71-80 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by V. S. Lee. Sterling, VA: Stylus Publishing.

Kramer, Jonathan and Alison Arnold. 2004. "Music 200: Understanding Music." Pp. 41-50 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by V. S. Lee. Sterling, VA: Stylus Publishing.

Lee, Virginia, ed. 2004. *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, Sterling, VA: Stylus Publishing.

Lee, Virginia, David Greene, Janice Odom, Ephraim Schechter, and Richard Slatta. 2004. "What Is Inquiry-guided Learning?" Pp. 3-16 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by V. S. Lee. Sterling, VA: Stylus Publishing.

Luke, Christopher. 2006. "Fostering Learning Autonomy in a Technology-enhanced, Inquiry-based Foreign Language Classroom." *Foreign Language Annals* 39(1):71-86.

Malinowski, Arlene. 2004. "Incorporating Active Learning, Critical Thinking, and Problem-based Learning in an Advanced French Culture and Civilization Course." Pp. 81-92 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by V. S. Lee. Sterling, VA: Stylus Publishing.

McIntyre, Lisa J. 2006a. *The Practical Skeptic: Core Concepts in Sociology*. 3rd ed. New York: McGraw-Hill.

McIntyre, Lisa J. 2006b. *The Practical Skeptic: Readings in Sociology*. 3rd ed. New York: McGraw-Hill.

Mills, C. Wright. 1959. *The Sociological Imagination*. London, England: Oxford University Press.

National Institute–Landmark College. 2005. "Using Varied Instructional Techniques: Inductive and Deductive Teaching Approaches." *Biology Success! Teaching Diverse Learners*. Retrieved January 19, 2011 (http://www.landmark.edu/institute/grants_research/biology_success/samples/inductivedeductive.pdf).

Norman, Geoffrey and Henk Schmidt. 1992. "The Psychological Basis of Problem-based Learning: A Review of the Evidence." *Academic Medicine* 67(9):557-65.

Prince, Michael and Richard Felder. 2006. "Inductive Teaching and Learning Methods: Definitions, Comparisons, and Research Bases." *Journal of Engineering Education* 95(2):123-38.

Prince, Michael and Richard Felder. 2007. "The Many Faces of Inductive Teaching and Learning." *Journal of College Science Teaching* 36(5):15-20.

Ramsden, Paul. 2003. *Learning to Teach in Higher Education*. London: Routledge/Falmer.

Reimers, Christine and William Roberson. 2006. "Using Inquiry-guided Learning to Promote Critical Thinking." Presentation at North Carolina State University Faculty Workshop, Raleigh, NC.

Roberts, Keith. 1993. "Toward a Sociology of Writing." *Teaching Sociology* 21(4):317-24.

Roberts, Keith. 2002. "Ironies of Effective Teaching: Deep Structure Learning and Constructions of the Classroom." *Teaching Sociology* 30(1):1-25.

Rubin, Susan 1996. "Evaluation and Meta-analysis of Selected Research Related to the Laboratory Component of Beginning College Level Science." PhD dissertation, Temple University, Philadelphia, PA.

Schwalbe, Michael L. 2008. *The Sociologically Examined Life: Pieces of the Conversation*. New York: McGraw-Hill.

Shymansky, James, Larry Hedges, and George Woodworth. 1990. "A Reassessment of the Effects of Inquiry-based Science Curricula of the 60's on Student Performance." *Journal of Research in Science Teaching* 27(2):127-44.

Shulman, Lee. 2000. "From Minsk to Pinsk: Why a Scholarship for Teaching and Learning?" *Journal of Scholarship of Teaching and Learning* 1(1):48-53.

Slatta, Richard. 2004. "Enhancing Inquiry-guided Learning with Technology in History Courses." Pp. 93-102 in *Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors*, edited by. V. S. Lee. Sterling, VA: Stylus Publishing.

Slatta, Richard and Maxine Atkinson. 2007. "Using Primary Sources Online: An Inquiry Learning Approach to Teaching Western History." *Journal of the West* 46(2):14-21.

Smith, D. 1996. "A Meta-analysis of Student Outcomes Attributable to the Teaching of Science as Inquiry as Compared to Traditional Methodology." PhD dissertation, Temple University, Philadelphia. PA.

Volkmann, Mark and Marta Zgagacz. 2004. "Learning to Teach Physics though Inquiry: The Lived Experience of a Graduate Teaching Assistant." *Journal of Research in Science Teaching* 41(6):584-602.

Zoller, Uri. 1999. "Scaling-up of Higher-order Cognitive Skills–oriented College Chemistry Teaching: An Action-oriented Research." *Journal of Research in Science Teaching* 36(5):583-96.

BIOS

Sarah Nell Rusche is a PhD candidate at North Carolina State University. Her pedagogical interests include critical pedagogy, inquiry-guided learning, and the first-year experience. Her specialty areas are inequality, social psychology, and social movements, and her dissertation research is an interview study of identity construction among women social justice activists.

Kendra Jason is a PhD candidate at North Carolina State University. Her interests include critical pedagogy, research methods, inequality, organizations, and workforce development, and her dissertation is on frontline health care supervisors and job-training programs.