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Incorporating Ethics Holistically: A Case Study in Research Methods Courses for Undergraduates

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Academic misconduct is a serious problem of the current higher education climate with 70 percent of students admitting that they cheat on exams and 84 percent of them admitting to cheating on written assignments (McCabe and Trevino 1996; Shapiro 2012). As social responsibility and ethical modeling become core values of higher education (Hironimus-Wendt and Wallace 2009; Hoekema 2010), we consider that ethical research behavior should be a critical component of student methodological, and ultimately, career training. We suggest here that one way to incorporate ethics in college level curriculum is by teaching it as an integral part of research methods courses. All disciplines, whether they are the sciences, medicine, social sciences, business or humanities, must teach some variation of research methods. With attention given to teaching the importance of ethics at every step of the research process, students will learn the importance of ethical decisions at every step in their future careers as well.

Typically, ethics education is presented in isolation of its application. Classroom discussions on ethics often are given less time than other material and provide only highlights of past ethical misdeeds and missteps accompanied by an overview of ethical guidelines and regulating bodies. It is possible, even likely, that students fail to connect their instruction in ethics with their required individual research projects. This suggests that failing to inculcate the importance of ethical conduct in research has significant and far-reaching implications. For example, when there is no requirement to obtain Institutional Review Board (IRB) approval for classroom research, students receive the message that ethical guidelines do not apply to them. It is the intent of this paper to further examine how ethics are taught by faculty and learned by students using a case study of faculty teaching a two-course research sequence for undergraduate Sociology majors at a large public university in southeastern USA. Our specific aims are to: (1) identify the ethical concerns that emerged from our adoption of requiring individual research projects in the capstone course; (2) discuss the process of monitoring ethical practices and behavior among undergraduate students conducting research; and (3) propose feasible solutions for incorporating ethics holistically into research methods courses. Here we conceptualize the holistic incorporation of ethics into research methods courses as a focused emphasis of ethical conduct at each stage of the research process highlighting how conduct at one stage impacts and influences conduct at other stages. While we focus on Sociology research methods here, the ultimate goal of our endeavor is to stimulate more discussion of best practices for incorporating ethics instruction holistically throughout the course curriculum of all disciplines.

LITERATURE REVIEW

The scholarship of teaching and learning in Sociology is abundant with articles focusing on the best educational strategies to use in the teaching of research methods courses; however, these focus on a rather limited number of recurring themes. One of the most predominant themes is teaching strategies designed to increase the quantitative literacy of Sociology majors (Caufield and Persell 2006; Howery and Rodriguez 2006; Sweet and Strand 2006; Wills and Atkinson 2007; Wilder 2009; Burdette and McLoughlin 2010) while others addressed how to reduce students' statistics anxiety with group projects and learning communities (Paxton 2006; Van Gundy et al. 2006; Decesare 2007; Macheski et al. 2008) and how to use attractive data sets and methods of data analysis in research methods courses (Scheitle 2006; Hoelter et al. 2008; Burdette and McLoughlin 2010). A number of studies recommend the blending of the student research project with an experiential learning activity, service-learning or community action research project (Rajaram 2007; Singleton 2007). While the teaching of qualitative research methods does not seem to be received by students with the same anxiety as quantitative methods, considerable attention is paid by contributors in *Teaching Sociology*, the primary teaching journal in this discipline, to debunking students' negative stereotypes against qualitative research (Hood 2006). Some focus on developing inquiry-based learning (Atkinson and Hunt 2008), teaching the mastery of qualitative techniques of investigation, such as indepth interviewing and observation (Callaghan 2005; Hsiung 2008; Tan and Yiu-Chung 2004; Healey-Etten and Sharp 2010) or ethical dilemmas involving interpretive bias and rapport with subjects in qualitative research (Navarro 2005). The literature also focuses on models of involving graduate students in the teaching of research Methods courses at the undergraduate level (Shostak et al. 2010) or how to successfully link the teaching of sociological theories with research methods (Pedersen 2010). The dissemination of undergraduate research findings at conference presentations or public poster sessions is also recommended as an important dimension of students' sociological training (Levine-Rasky 2009).

We identified a large research gap in the scholarship on ethical dilemmas in the teaching of research methods courses and the completion of the undergraduate research project in particular. A couple of previous studies focused on enhancing the ethical training of sociology majors by infusing ethics in experiential learning activities, such as prison tours (Meisel 2008) or role-playing exercises based on fictional case studies of ethical research violations (Teixera-Poit, Cameron, and Schulman 2011). Although the Sociology scholarship of teaching and learning is undeniably preoccupied with the effectiveness of teaching research methods courses, only a few articles focus on the capstone research project (Raddon, Nault, and Scott 2008; Hauhart and Grahe 2010; McKinney and Busher 2011). However, none of these articles looked specifically at student research misconduct, provided concrete examples of student malpractices and proposed effective ways of incorporating ethics holistically in the fabric of research methods courses.

Given the lack of teaching resources on integrating ethics education holistically in sociology course instruction (specifically throughout research methods courses) and the increasing time allotted to devote to ethical inclusion that parallels increases in knowledge base, instructors are left with a dilemma how, what and where to include ethics when there is little time for in depth instruction.

CASE STUDY CONTEXTUAL BACKGROUND

In 2004, the American Sociological Association (ASA) issued the results of a special task force in a report subtitled "Meeting the Challenges of Teaching Sociology in the Twenty-First Century." In the report, sixteen recommendations for curricula served as examples for sociology departments engaged in curriculum change or enhancing their sociology program (McKinney et al. 2004). These recommendations focused on in depth intellectual development.

The authors of the report recommended that undergraduate courses in methods should be integrated so that students have the opportunity to complete a research project. They also strongly suggested "extensive, developmental sequence of research training, rather than simply relying on a required research methods or statistics course" (p. 8). The overall goal was to achieve sequenced courses in the curriculum with in depth course material that involved hands-on research training for undergraduates. The report included a full set of "best practices" to achieve this goal (McKinney et al. 2004).

While recommendations and current guidelines adequately address the fundamental skills inherent to an effective program of study, those institutions and programs desiring to incorporate these best practices quickly find themselves in a race against the clock. In order for students to achieve the intended learning outcomes, an enormous amount of material must be covered in a very brief span of time. Therefore the importance of performing ethically in research is typically relegated to a single lecture or chapter and may be only referred to briefly in the future due to time constraints.

Perhaps recognizing this need for more ethical instruction, in 2008 the ASA Task Force on Teaching Ethics throughout the Sociology Curriculum, sponsored by the ASA Committee on Professional Ethics (COPE), constructed a web site with resource material for teaching ethics in sociology courses. The resources provide cases on a range of ethical scenarios and situations from many sociology courses along with discussions commentary. Course material for instructors and administrators concerned with ethical topics are also available

with the click of the mouse button. Still missing, however, is an interactive discussion of how to integrate ethical training, and ongoing consideration of emerging ethical issues throughout the sociology curriculum. Moreover, with new research findings, methodological advances and teaching strategies increasing, even the most seasoned professors find it difficult to cover all the new material, let alone include ethical debates and applications. Yet, particularly within research courses, in depth ethical discussions and best practices in implementing ethics education are more needed than ever before.

In our program we had already established the 2004 ASA recommendation to implement a two-course sequence of research methods requiring students to conduct a research project in the capstone course (McKinney et al. 2004:8). Our sociology majors were required to take two courses in social science research methods and conduct their own individual research projects from conceptualization to presentation of findings. The first course was an introduction to research methods and included instruction on sampling, conceptualization, operationalization, qualitative and quantitative research designs, and basic qualitative and quantitative data analysis. This introductory course culminated in each student creating a research proposal. The proposal was then carried out in the second course of the sequence, which functioned as the senior capstone course. Here our students further developed ideas and concepts introduced in the first course through experiencing the research process first-hand. If their research required participation of human subjects (e.g., surveys, interviews, observations), students submitted their proposals to the Institutional Review Board (IRB) for approval. Subsequently, they collected data, conducted data analysis, and presented their findings in a written report and presentation, either by oral presentation or poster.

After five years of teaching the sequenced courses with capstone research projects, the faculty who taught these courses convened a faculty learning community with the aim to evaluate our progress and identify the most effective strategies of teaching the research methods sequence. When we focused on ethical practices, our meetings were largely a discussion of past student research misfortune or misconduct. Treated as a case study, this article presents the outcome of that faculty learning community. A case study is a research method that uses iterative strategies for research on a contemporary phenomenon in a real life context where the researcher has some control, but not total control, over relevant behaviors (Yin 2009). The questions ask "how" and "why"—in this case we ask how students learned ethical research and why ethical issues arose. The research techniques include direct observation and analysis of relative documents. In this case study we used a reflexive model that acknowledges the intersubjectivity of the researchers (professors) and the subjects (students), called an "extended case study" method (Burawoy 1998). While the case is only students at

one university, the courses and observations we analyze cover those of three professors teaching these courses over five years.

Conducting social science research with human subjects presents some ethical challenges not faced by research conducted in labs or clinics. For clarification, we describe how we discovered unintended ethical issues, deliberate unethical behaviors, and ethical mishaps made by students or ourselves in our previous classes. Our intention is not to emphasize mistakes made nor criticize student learners; rather, we provide concrete examples and recommendations to improve the quality of ethics instruction of undergraduate students conducting research. This was not a research study of our students, and the examples we describe occurred in previous course work, which we discussed in the faculty learning community. We believe the realistic ethical challenges illustrated in these experiences will help others to establish better teaching practices in the future. To protect student confidentiality, we limited our selection of examples of ethical challenges to only those that occurred prior to 2010 and provide only a general description of the ethical breach.

In the following section we draw attention to the ethical principles we identified as most salient in our analysis and provide a conceptualization of each of these principles. Next, we give examples of ethical challenges we faced in reallife application of students conducting individualized research and how we addressed these when they came to our attention. We end with our suggestion of how to structure the research courses so that ethics become more holistically incorporated and the challenges faced by faculty and students are diminished.

ETHICAL CHALLENGES IN SOCIAL SCIENCE RESEARCH

Informed Consent

Informed consent means that human participants understand the research, are informed of all potential harms, and voluntarily agree to participate. In contrast to medical research, the terms used in consent forms for social science research are expected to be completely understood. For example, participants accept medical names of unfamiliar drugs and diseases, and rarely question the language stating that the possible side effects and potential risks. Patients are used to reading such dire warnings every time they visit a doctor, receive new medications or consent to vaccinations. Consider, for example, the warning on some vaccinations' consent forms that state: "in rare cases, the vaccine can cause blindness or death." Few parents refuse to vaccine their children due to these warnings. Instead, research conducted by social scientists does not have such standardized language known to the public; therefore any potential harm, no matter high unlikely, will raise unwarranted distrust or concern over the research

being conducted. For example, IRB may require a statement in a consent informing the participant that answering questions in a survey may cause emotional stress. Yet, the mere mention of this stress may compromise the results.

Unlike research conducted in clinical settings, it is difficult to obtain consent in social science research conducted by observing people in publicly accessible places that are privately owned, such as where people shop, eat or engage in recreational activities. Some IRB board members might require consent from the property owners or manager. When behavior is observed in a smaller setting, such as a classroom or club meeting, obtaining informed consent is easier, but people act differently when they know they are being observed, an influence known as the Hawthorne effect. The social science researcher must always address consent concerns imposed by ethical review boards even when these concerns are likely to never occur.

Confidentiality

The issue of confidentiality is also less clear when conducting social science research, especially in social context. Whereas medical experiments can be conducted in clinical settings where both participants and researchers are subject to blind/blind studies, neither knowing who is obtaining the experimental drug or intervention, social scientists often conduct their research in social settings that are not designed for research, such as city streets, bars, and places of employment. Participants in these studies are not completely anonymous, and confidentiality is often harder to ensure. Consider, for example, that researchers conducting studies of illegal activities will find it difficult to obtain signed informed consent, even if the participants agree, for obvious reasons of disclosing identity. Strategies used to protect confidentiality include aggregating the data, thus losing the precision of individual data outcomes. Some IRBs allow oral or verbal consent by a recorded consent process or by the interviewer signing the consent form indicating the participant read the form and gave consent. However, university boards do not consistently allow alternate consent processes needed to protect anonymity.

Avoiding Harm

The mandate to avoid harm and seek benefit for research participants is more difficult to define in social science research than in biomedical research. First, the measurement of positive outcomes is often evident in biomedical research, such as the result of an experimental drug. When an adverse outcome of a drug is found, the study is terminated. Conversely, when a positive result is established, those participants given the placebo are unblinded, and the drug with better results is administered. In social science research, the adverse and or positive outcomes are often not discovered until after all the data is collected and participation in the result has long ended. Moreover, positive results are usually applied only to future populations that do not include the original study participants. Consider, for example, a research study comparing different teaching styles on reading comprehension among third graders. By the time the one teaching style is found to result in significantly better outcomes, the third graders in the study are in higher grades and already hindered or benefitted by their reading education. The benefit to the study participants is usually non-existent except for the knowledge that their participation may help future populations in similar social circumstances.

Protection of the Student Researchers

While ethics in research are often focused on the protection of the research subjects, the protection of the researchers should also be taken into careful consideration, especially when the researchers are undergraduate students. Some attention to the researcher is carefully considered for obvious reasons, such as when research is being conducted on subjects engaged in illegal activities or in potentially dangerous environments. In these cases, care should be taken that the student researcher avoids being alone with a research subject, having expensive instruments or confidential material in his or her possession when alone, or simply "knowing too much" about illegal activities or the people engaged in them. These situations are not as easily discerned in real life as when hypothetical situations are discussed in class. Since all research conducted with human subjects have the potential to harm the researched in unforeseen ways, at what point does the faculty instructor or IRB give permission to enter a social environment when considering the safety of the student and weighing this with the learning experience? Much depends on the student's prior experience and relationships with potential research contacts. Sociological analysis of artifacts may also present safety issues. For example, conducting content analysis of dairies written by deceased family members might result in uncovering family secrets that puts the student in danger. Additionally, emotional harm of the researcher is rarely discussed but more important to acknowledge when the researcher is a student. Conducting interviews with women who were victims of domestic violence might cause unforeseen emotional and mental anguish to a student who has seen similar incidences in his/her own family. These are all examples that occurred in our classes but cannot always be anticipated by the professor or student.

THE RESEARCH METHODS COURSE SEQUENCE: CHALLENGES AND SOLUTIONS

While we found the sequenced two-course format culminating in an individual research project successful on many levels, our faculty learning community discussions resulted in some degree of trepidation concerning insufficient ethics instruction, and (in a few cases) the ethical conduct of some students. In response, we set out to ensure that the ethical implications of research were seamlessly woven into the fabric of our research methods classes. The complexity of the problem was overwhelming. Many of the issues that needed to be addressed were overlapping or intertwined with one another. In an effort to make our task more manageable, we isolated each ethical concern by tracing the issue to its root cause. Once this was completed, each concern was examined within the context of itself and its relationship to the overall course format, processes, and requirements. At this micro level of analysis, solutions became more readily apparent. Additionally, rather than one big fix, many small resolutions were identified. For the sake of clarity, we present these concerns in chronological order of when they occur while teaching and monitoring research projects throughout the two-sequenced courses, starting with preparing for the class.

The Course Syllabi

One of the first observations made in our faculty learning community was that the course syllabi paid very little attention to the ethical implications of research. Since the syllabus is arguably the most read document in the course, it seemed a logical place to emphasize the importance of ethical conduct. The first step in addressing our concerns was to develop new course syllabi with course descriptions that identify ethics as major course theme in the sequenced courses. Additionally, an understanding of the ethical implications of research was incorporated into the intended learning outcomes. In conjunction with providing a syllabus that highlighted ethics, grading rubrics for evaluating work reflected this emphasis further and continually for each graded assignment.

Certification on the Protection of Human Subjects

The university IRB requires that all persons conducting research with human subjects obtain certification through the Collaborative Institutional Training Initiative (CITI) website. This platform offers a web based course in the protection of human subjects with a social and behavioral focus for undergraduate students conducting studies that present no more than minimal risk to human subjects. Students completed this task at a time convenient to them, on or off campus, and they received a certification once a ten-question, multiple-choice exam was passed. If students failed the exam, the CITI permitted them to retake the exam as many times as necessary to achieve a passing score. After each attempt at the exam, students were presented with the correct answers to the exam questions. The next round of questions may include the same or different questions.

Students are instructed to read the CITI course instruction material before taking the exam, but there is no minimum time limit on how long it takes to read this material. Many students quickly learned that they could obtain certification without reading all or any of the material contained in modules by keeping a record of the exam answers and repeating the exam until they pass. This, of course, negated the intended learning outcome of becoming more aware of ethical considerations in the protection of human subjects in social science research. While the students' shortcuts did not go unnoticed by faculty, the solution to the problem was not immediately clear. Because of an already tight timeline, it was impractical to insist that our students complete the certification in class where their activities could be observed and monitored. Consequently, it was decided that faculty will incorporate the ideas and concepts presented within the CITI modules on each of the course exams, informing the students that the material would be on the class exams, but not necessarily the same questions found n the CITI.

Designing a Research Proposal

As already mentioned, the two-course sequence required students to design a study from the ground up. After class instruction on what the stages in research involved, the terms used, and other needed criteria, the students developed a proposal with their desired hypothesis or research question, unit of analysis, target population, the size of the sample, how they would select the sample, the data collection method, and how they would analyze the data once obtained. The proposals needed to be approved by the professor, but even by a first draft, many students were already very enthusiastic and sometimes strongly attached to their ideas. Unfortunately, students often designed studies that were not ethically feasible for a number of reasons. For example, they were unaware of stigmatized, marginalized, or vulnerable populations, such as the homeless, drug users, or undocumented workers, that would require extensive IRB approval process that left little time to conduct the research, or may ultimately not be approved. Students often suggested methods that seemed fine to them but were not ethical to a more experienced researcher. In one example, a student proposed that he would simply walk up and chat with the homeless about why they are homeless. It became clear that it was necessary to instill a better understanding of what it means to weigh the potential harm to subjects against the benefits that can be produced by the undergraduate research. How would this research benefit the population under study (i.e., the homeless population)? As faculty who teach research methods in our sociology courses, we found that teaching ethics in research required more than a one-time lecture. Not only is ethics an essential aspect of every step in the research project, but each ethical facet of research also requires ethical reflection, and it is professor's responsibility to accompany the students through this process.

In order for our students to complete the proposal on time, they had to begin working very early in the semester when they took the first research methods course in the sequence. It is possible that, as a result of this rush to complete the study design, students did not have ample time to reflect on the ethical implications of their research. As a solution, we proposed that students who desired to complete a project involving human subjects, especially those with difficult, time-consuming or other challenging proposals, be required to take an intermediate course that focused on advanced qualitative or quantitative methods before beginning the research data collection in the capstone course. These students would no longer be required to complete a full proposal by the end of the introductory methods course. Alternatively, instead of only individual projects, group projects were encouraged. In a three courses sequence, students could submit a literature review as the final project in the introductory methods course and culminate the full proposal during or at the end of the intermediate research methods class. Adding the additional course also provided students the time to further explore and understand the ethical issues involved in study designs with human subjects, particularly those from vulnerable populations.

Collecting Original Data

Some of our students had difficulty connecting formal classroom instruction in ethics with their own conduct while completing their individual research projects. Not fully comprehending the amount of work involved in the completion of a research study, students may wait too long to begin their projects. Often due to their timesaving efforts, some students deviated from the methods identified in their proposals, especially in the areas of sampling, data collection, and data analysis. These short cuts produced a wide variety of ethical concerns, and students engaged in a variety of misconduct at the data collection stage. In some instances students employed a sampling method different from the method stated in their proposals, placed themselves in dangerous environments in an attempt to collect data on stigmatized populations or illegal activities, or were unaware of how their actions could potentially harm subjects. For example, a student, interested in understanding how undocumented immigrants perceive the police, proposed that she would gain access to this population through connections she had at a local church that is attended by many of these individuals. Rather than following her proposed strategy, she approached groups of day laborers while they were waiting for work. The moment she mentioned police, the day laborers refused to talk with her and immediately left the area. Unaware that she had produced great anxiety in these individuals and may have cost them a day's wage, she did not understand why the workers ran away from her. Instead, she suggested that the day laborers were being rude to her because she did not speak Spanish.

Since it is easy "cheat" if no one is watching, and the professor cannot be on the field with all students, the dilemma of knowing if students were cutting corners presented a major challenge for us. One solution was more oversight by the professor, which became less time consuming as we achieved our goal to place ethics at the center of instruction. First, the professor has to gain the respect of the student by establishing strict guidelines and oversight. Effective supervision is needed at every step of the research process, from planning, to collecting and analyzing data to writing reports. For example, if field notes are required, the professor must read them to ensure they were not made up. Mistakes in the field notes should be noted, and notes re-written if not consistent with the standards set by the professor. These assurances of quality work will result in the student researcher knowing that quality and honesty are important aspects of collecting research data, and shoddy or dishonest work is not allowed. The same is true with any data collection process be it surveys, field notes, interviews, secondary analysis of existing data, or content analysis. For example, to address a specific incident of misconduct in survey collection, students were required to turn in all surveys collected and professors ensure that these were not completed by the same respondent(s) as indicated by the same type of pen or handwriting style. Another solution was to require a group team effort for studies that entailed extensive data collection. This not only helped with the data collection process but also helped in the oversight of ethical behavior.

While it is difficult to plagiarize all the data collection in a research study, it is possible to plagiarize part of it. The temptation to copy someone else's notes or analysis is just as prominent in collecting research as it is in writing papers—an ethical problem that has risen to such extent in the age of the Internet that schools now invest in expensive computer services to "proofread" student papers for indicators of plagiarism. While most professors provide warnings on the syllabi regarding plagiarism, and teach students in the classroom the need for honesty, in a research course the professor must ensure it by constantly checking for deviations from ethical practices in student work.

Outside egregious errors, it appeared that many of the missteps our students made during the data collection stage were the result of having a narrow time frame in which to complete their research. Requiring the third, intermediate course (qualitative or quantitative) would alleviate this time crunch by allowing students additional time to complete the collection of their data. Additionally, the intermediate course would expand students' ethical awareness in the area of data collection. With two consecutive semesters in methods, our students will approach their final projects with more maturity and a greater understanding of ethical behavior in research.

Data Analysis and Presentation of Results

The introductory research methods course only provided limited instruction on data analysis and data analysis software (NVIVO, SPSS). Therefore, many students were unprepared for the extent of data analysis that was required. As a result, there were significant ethical concerns in this area as well. Students discovered that they could manipulate or massage the data and/or manufacture results, an ethical concern of all research that has been widely scrutinized among professionals (Best 2001). One instance concerned a student who claimed that he conducted 35 in-depth one-hour interviews for his qualitative project, but he could provide documentation for only five interviews. Additionally, we had confidentiality concerns in the storage and destruction of identifying data. For example, some students inadvertently left folders or flash drives with surveys that contained identifying information in a highly trafficked computer lab.

To address many of these concerns, we required students to submit evidence of their analyses with their final research reports. Students conducting quantitative projects must print results pages generated by SPSS. Students conducting qualitative projects, such as interviews, must submit typed transcripts of each interview and their coding work along with their final research reports. Some students struggled with ensuring that participant anonymity and confidentiality was protected during verbal reports of their work. These students unintentionally disclosed the identity of participants or provided enough information about participants that made the participants readily identifiable. For example, one student potentially revealed her participants by identifying the exact location that she made contact with them. Other students blatantly identified participants not realizing the ethical considerations surrounding anonymity and confidentiality also apply to the verbal presentation of results.

To address this, we included more exercises that demonstrate methods of ensuring anonymity and confidentiality in verbal and written presentations of work. We further suggest that requiring students to specialize in quantitative or qualitative methods and analyses by incorporating the intermediate course in methods sequence will allow for more extensive instruction on analysis, as well as greater awareness of the ethical issues that surround data storage and data analysis. Such instruction not only makes students aware of potential manipulation of data, but also teaches them ethical concerns involved in doing so.

DISCUSSION

In this paper, we identified the ethical concerns resulting from our experiences implementing the ASA recommended two-course sequenced research methods instructional format and the incorporation of individual student research projects. Whereas the majority of our students conducted ethically sound research, here we focused on the ethical breaches we observed at each stage of the research process. While some might view this as an unnecessary focus on students mistakes, we believe that ethical concerns are very important to the education of our students, and recent research appears to justify an increased focused on ethics (Hoekema 2010; McCabe and Trevino 1996; Meisel 2008; Shapiro 2012). By identifying these ethical concerns and proposing solutions, we hope to stimulate the dialogue on ethics and provide a teaching resource for incorporating ethics holistically into research methods.

The result of our case study analysis was a re-framing of the sequence to allow additional research courses to be taught before the capstone experience and, more importantly for this article, a more holistic integration of ethics instruction into every methods course module or chapter. We propose that by focusing on the ethical issues of conducting research with human subjects, many of the obstacles we encountered can be avoided or overcome. We start by making ethics a focal point in the syllabus, discuss ethical considerations early in the first research lecture, and include a question on ethics in every new research component taught in the classroom (sampling, selection of research methods, data collection, final reports and presentations). Rather than relegating research methods ethics education to a solitary chapter, we make ethics a primary learning objective in each sequenced course. Students are sent the message that ethical standards and practices in research are not obstacles to be overcome, but are integral in producing quality research.

Next, small and feasible research assignments, which we call "miniresearch projects," were assigned to students in order to familiarize them with the process of collecting data. These included observing people and actions in public places; content analysis of written documents, internet websites, or advertisements; surveys conducted on classmates; and short in-depth interviews conducted with friends, faculty, or family members. Each of these methodological approaches present unique ethical challenges that can appear insurmountable if faced for the first time in an actual research project. The mini-research projects enable our students to overcome these challenges within a classroom environment. Rather than the findings being the center of the classroom discussion, the challenges and difficulties in the research project are explored in class, with the professor and classmates offering suggestions and solutions. We also propose that group projects be encouraged, which requires additional oversight by the professor but also includes co-monitoring by fellow student researchers.

Finally, we agreed that the two-course sequence for learning research methods and conducting a research project did not provide sufficient time for the professors or the students to successfully and ethically complete the requirements of the courses and the project. While many students benefitted by having experience collecting data and writing their results, we saw that too many were not integrating ethics into all parts of the research design. To address this we proposed and implemented changes in the curriculum that moved from the twocourse sequence in research methods to an elective three-course sequence for students who desired to conduct a research project, and required for those conducting research with human subjects. The inclusion of either quantitative or qualitative methods as an elective in the sequence will better equip our majors with the knowledge, skills, and understanding of research needed for working effectively in a social science occupation or to continue to their education in a graduate program. Beyond the obvious benefit of allowing more time to teach ethics in a three-course sequence, knowing that students who would conduct research as a capstone project would receive much more in depth ethics training in their elective course allows professors to focus on less extreme ethical issues in the introductory research methods course, knowing more in-depth instructions will be provided in the intermediate and/or in the capstone senior seminar.

LIMITATIONS AND FUTURE RESEARCH

Undergraduate students are not always ready to conduct research ethically. The examples reported above were not meant to criticize those who attempted to do so, and they are not necessarily representative of all students. We used these illustrations to emphasize our finding that ethics must be holistically incorporated into research courses, and if projects are required, an additional research methods course is needed. The professor is ultimately responsible for student misconduct while conducting research and this might be one limitation to including individual student research projects in the undergraduate research curriculum. A second limitation is that few professors want to be considered overly controlling, and the all-seeing view required to effectively mentor individual student research projects might be interpreted by some as panoptical classroom instruction. Such an interpretation does present a limitation. We hope the holistically taught ethics we propose here dispel such concerns. Rather than merely acting as an ethical advisor to students who have no experience in actual research, and without being

interpreted as a "big brother" approach, we suggest that the research methods professor must have an omniscient but congenial perspective. This leads to our third limitation. In order to achieve the necessary holistic oversight, the classroom size in research methods, specifically the courses in which data collection occurs, must be restricted. This might present a limitation in some schools where student bodies are growing while faculty numbers are not, and capping classroom size is not feasible.

As we are in the process of implementing the recommended solutions we have outlined here, we are mindful that we must develop a plan to evaluate the effectiveness of these measures. It will not be enough to measure the effectiveness by a decrease in the number of incidences of individual student misconduct. Rather, evaluating the content of the students' work may more accurately assess the effectiveness of the proposed solutions. Is the student's work reflective of the ethical principles relevant to research with human subjects? Does the student pay thoughtful attention to ethical issues in their research proposals and papers by highlighting how they will ensure that all ethical concerns are alleviated or minimized? Do students carefully consider the protection of human subjects in the written and oral presentation of their research? By weaving ethical implications of research into the fabric of our research methods courses, we strive to make ethical conduct in research instinctual rather than merely required.

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