# Mentoring as a Socializing Activity –
# Supporting Undergraduate Research in the Social Sciences

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The term "social sciences" acts as an umbrella for an extraordinarily broad and diverse range of intellectual activities.  It includes practices as quantitative as demography and as qualitative as ethnography.  It includes activities like cognitive psychology that are near to the bench sciences, and those like semiotics that are near to literature.  It includes research agendas with considerable external funding, such as decision theory, and those like cultural criticism that rarely receive significant grant support.  This chapter will not attempt to explore the full breadth of activities encompassed by the social sciences label, but rather will talk about commonalities of mentoring undergraduate students across those fields.  Our goal will be to help faculty members excite and encourage undergraduates about the possibilities that their fields entail.

## Mentorship through Narrative

Every career path blends three ways of thinking – content knowledge, logistical management, and a sense of purpose and strategy.  (We can shorthand these as <u>what we do</u>, <u>how we do it</u>, and <u>why we do it</u>.)

**Content**
*Teaching*

**Logistics**
***Supervising***

**Purpose**
*Mentoring*
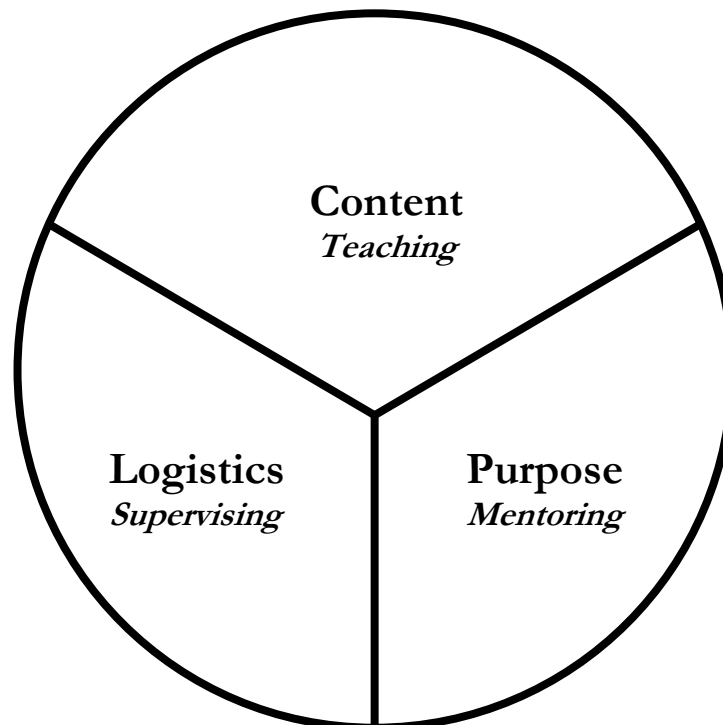
Higher education has traditionally focused upon conveying the content of its departments – the knowledge base, theories, and analytical practices that define academic disciplines. These bodies of content are what our students exhibit in their tests, essays, and projects. But we all too often lose sight of the other two components of intellectual life: the day-to-day logistical management required to sustain a life of the mind, and a sense of the purposes that drive us and the strategies we use to define our particular niche within the academy.

It is crucial for our discussion that we separate these goals, and their three related professional activities. **Teaching** is the practice that we use to convey and support the intellectual content of our fields; we communicate knowledge, principles, theories and methods, and set out pedagogical opportunities for our students to engage with that world of ideas. **Supervising** is the practice of helping our students manage the mundane but crucial daily tasks that make scholarship possible – organizing field notes, managing electronic files, finding archives, learning analytical software, writing draft reports. And **Mentoring** is the work of exposing our students to our own interests and enthusiasms, introducing them to a larger community of scholars, and helping them work through the emotional questions that might result in their adopting a way of life. As mentors, we are role models in the most sociological sense – we are modeling (by living and narrating) a role (as a scholar, researcher, and teacher), so that our students can try that role on for themselves to see how well it fits.

We often forget that our students are engaged in a far more expansive project than the ones we set for them as teachers. They are working to understand who they will be in the world, working to reinforce or to challenge their career and life decisions. And in higher education settings, they're being introduced to a body of professionals engaged in ways of living that may be somewhat or completely alien to their prior experience. They expect us to be teachers, and also believe that they know what being a teacher means (something akin to the teachers they knew in high school). They're less often aware that we are engaged in our own work of discovery, and that we've chosen an area of inquiry because we enjoy doing it, or are somehow compelled to do it. College faculty members are unusual in that we've continued to learn and to do research without a test or a degree as the carrot; we have discovered some internal motivation to guide our scholarship. And as much as anything, the project of undergraduate education is that students develop that same kind of internal motivation; the goal is that they see themselves (in Hannah Arendt's use of the term) as actors, engaged in the continual making of culture and civic life.

As they develop their own sense of purpose in the world, our students will be looking to us for emotional information as much as they are intellectual information. These elements of identity, while usually unspoken, are at the core of the mentorship endeavor:
- What is it like to be a practitioner of (sociology, anthropology, geography, …)?
- Would I enjoy this work enough to pursue it for years or decades?
- What are the particular pleasures of "getting it right?"
- How can I avoid the most common ways of "getting it wrong?"

As the environmental psychologist Thomas Sarbin (1983) writes, the work of identity formation is a narrative process.

> *When a human being adopts the posture of vigilance he/she acts toward an ecological event to ask "what is it?" A phrase of self-reference is tacitly contained in the question — "what is it in*

*relation to me?" The vigilance question is reflexive and can be inverted to "what am I in relation to it?"....To construct a self, people ask pronominal questions (verbally or motorically) and then construct pronominal answers (aloud or silently)....We construct personal narratives complete with plots and subplots, dramatis personae, settings, goals, beginnings and endings, climaxes and anti-climaxes, etc. In construing a self from the referents for "I" and "me" in spoken or silent monologues, the person does not simply chronicle experience, he/she* <u>renders</u> *experience.* (Sarbin 1983:338, emphasis in original.)

Mentorship, then, is the work of helping students construct a rich narrative about their potential future lives as social actors who make use of the content and logistics of a discipline. If they can imagine themselves – in dense detail – as social scientists, they can more easily develop the internal motivation required to realize those rendered lives.

## <u>Undergraduate Scholarship as a Site of Narrative</u>

Cheryl King and Barbara Cubic (2005) have written about the roles of mentorship; although their commentary is specifically addressed to helping female psychology students in health-care systems, the general themes are more universal:

> *One function extremely critical to academic careers is the facilitation of professional networking and the mentor's use of their own professional network to create academic opportunities for the mentee. Other functions include advice and consultation concerning decisions at career turning points; the management and prioritization of teaching, clinical, and research responsibilities; strategies for surviving and thriving within a hierarchical system; and individualized tutoring and feedback concerning academic activities.* (King & Cubic, 272)

These identity functions that King and Cubic describe – networking, career planning, work-management strategies, and understanding workplace and disciplinary culture – are all a part of developing a professional self, regardless of the specifics of any individual profession. They are also wonderfully suited to undergraduate scholarship opportunities. As we begin to see our students as junior colleagues, and as they begin to see themselves as active scholars, these are the actions that we can take up through collective intellectual work.

All college faculty members have also been undergraduates wondering about our own directions, and have a lived experience to draw upon as we guide young people who navigate that element of their lives. Students often do not name "identity formation" as part of the work they take up in college, though we know that it is; they may not reveal that they're experiencing emotional turmoil over their futures, though we know that they probably are. Both because of our professional understanding of social phenomena and because of our own experiences of learning to be an intellectual professional, we can be more fully attuned to the emotional strategies that we might employ in supporting a new generation.

There are some key traits of mentorship that are especially well suited to collaborative work with our students. They include:

- **Forwardness.** Our students may well be hesitant about approaching us to do scholarship. They know that they don't know much yet, and may feel inadequate or in danger of being

dismissed.  And they certainly know that they don't yet know enough to take on fully professional work.  But with undergraduate research projects, we as faculty are in charge.  We can recruit students in whose eyes we see the glint of pleasure in the ideas of the classroom; we can reach out to students who may not yet feel capable of reaching out to us.

- **Persistence and Repetition.**  Nothing is easy the first time… or the fourth.  The ongoing contact of undergraduate research projects allows us to give students the opportunity to struggle, and eventually to emerge from those struggles with a hard-won success.  And inviting students into our intellectual worlds allows them to see us struggling with the framing of a new problem, with the management of inevitable setbacks; it breaks the narrative frame of scholar as worthy of pedestals, and allows them to see us as workers and thinkers not unlike themselves.

- **Emotional Honesty.**  We have all entered our particular career paths because of some particular motive, often hard to make rational but still at the core of why we do the work we've chosen.  There are parts of our work that enliven us and other parts we find frustrating or tedious; being open about the joys and challenges we find in our work will help our students see how they might partake of the particular pleasures of our discipline.

- **Recognizing and Locating Alternative Mentors.**  As students grow and become more focused in their work, they may well want to take their scholarship into areas with which we're less familiar or less capable of strong guidance.  If students have been working and presenting along with us, they're becoming part of our professional network, and we can work with them to find an intellectual guide more closely fitted to their specific interests.

In this chapter, we will lay out some practices related to each of these three roles – teaching, supervising, and mentoring – that help students begin to see themselves as emerging scholars.  We will also discuss some of the ways that research experiences can be blended with other engaged-learning practices such as service and travel, so that students can see that scholarship entails public as well as published work.

## Teaching:  Curriculum Design That Fosters Scholarship

Students are drawn to the social sciences for a variety of reasons. Some are interested in the "pure" scientific nature of the disciplines, while others are interested in the more applied aspects (social work, activism, and so forth). Similar to other students in the academy, it is not uncommon for social science majors to enter the field with preconceptions about how the world works, or with a misunderstanding about the nature of social and cultural inquiry. One of the goals of the major is to challenge their taken-for-granted assumptions, debunking myths that they bring with them to college. The primary way in which this is done is through the teaching of empirical inquiry (American Sociological Association Task Force on the Undergraduate Major, 2004). With a sound understanding of scholarly theory and methods, students can learn to consume and produce knowledge in a more thoughtful, systematic manner.

It is commonly understood that the essential aspects of science are theory, data collection, and data analysis, or logic and inquiry (see, for example, Babbie, 2005). Students must learn to critically and systematically analyze information that is produced by others, and must also learn to produce knowledge themselves. The American Sociological Association, for instance, recommends that

sociology departments "infuse the empirical base of sociology throughout the curriculum, giving students exposure to research opportunities across several methodological traditions, providing repeated experiences in posing sociological questions, developing theoretical explanations, and bringing data to bear on them" (American Sociological Association Task Force on the Undergraduate Major, 2004: 8). The Task Force recommends that departments require courses in sociological theory, research methods, and statistics.  The American Sociological Association offers several syllabi sets that include samples of different types of assignments (Mulvey, 2000).

Preparing undergraduates to conduct research in the field is not a simple task. Scholars in our disciplines utilize a wide variety of research methods, including experiments, survey research, unobtrusive research, and qualitative field research. With regard to research methods, the American Sociological Association's original Task Force on the Undergraduate Major recommended the following goal for the sociology major:

> *The sociology major should study, review, and demonstrate understanding of the following: 3. The role of evidence and qualitative and quantitative methods in sociology, such that the student will be able to: (a) identify basic methodological approaches and describe the general role of methods in building sociological knowledge; (b) compare and contrast the basic methodological approaches for gathering data; (c) design a research study in an area of choice and explain why various decisions were made; and (d) critically assess a published research report and explain how the study could have been approved.* (American Sociological Association Task Force on the Undergraduate Major, 2004: 51)

It is important that students themselves understand the core understanding goals of their courses and majors.  The act of reflecting upon the work they have done, and measuring it against the larger "road map" of a curriculum and its overarching goals, is a core learning moment that reinforces and contextualizes their understandings.

In addition to the required courses noted above, departments should also consider offering students a "capstone" experience during their senior year, either through a specific course or by providing students with an opportunity to write a senior thesis. According to Wagenaar (2007:11):

> *The capstone course provides a structures opportunity for majors to address and assess their experiences in the major. It will likely be the only sociology course that transcends all other sociology courses and re-confronts the major with the breadth of the introductory course but now with the depth instilled by traversing the sociological curriculum. It provides faculty the opportunity to work with their majors as junior colleagues in the discipline. Finally, it provides some assessment of how successfully the student has attained the overall goals of the sociology curriculum.*

As a component of the capstone course, instructors should consider including an original research project. Students can build on their four-year course sequence by producing original research on a topic of disciplinary significance, demonstrating that they can make a conscious connection between theory and methods. Overall, by asking that students engage in original research, students can demonstrate that they are not only *consumers* of knowledge, but also *producers* of knowledge.

Report or publication format also varies based on methods and purpose. There are many books that can introduce students to different types of reports and that can help them to write effectively, including:

- *A Guide to Writing Sociology Papers*
- *A Sociology Writers' Guide*
- *The Sociology Student Writer's Manual*
- *Writing Ethnographic Fieldnotes*
- *Writing for Social Scientists*
- *Writing from Sources*

Full citations for these are in the References section at the end of this chapter. But aside from the guidebooks, it is important for students to understand that their own teachers and mentors are engaged in the same kinds of writing we ask of them.  It may be useful to assign one of your own publications in an advanced course, and to talk with your students about not merely the content of the work but also your decisions as a writer.

## Supervising:  Building Structures that Allow Students to Succeed

Within our curricula, we often teach methods courses that operate at a high level of abstraction: learning about interviewing without the practice that helps an interviewer overcome participants' hesitation, learning about statistical methods without understanding the difficulty of compiling clean and accurate data sets.  It is important to help students understand and be comfortable with the day-to-day work that underlies scholarship.

One of the distinguishing features of the Honors College at the University of North Texas is the research track, through which students have the opportunity to participate in an interdisciplinary program that integrates research practices into all four years of their undergraduate curriculum.  One of its key features is close coaching in the actual practices of research.

The research track promotes learning across disciplinary boundaries, provides opportunities for students to acquire and practice research skills from the beginning of their college work, and prepares students to be strong applicants for graduate programs, whatever their major. The Honors College also wanted to contribute to the entire campus community by demonstrating leadership in undergraduate research. This goal is in keeping with that of all good honors programs and colleges: to undertake and demonstrate the best academic and intellectual practices as a model for honors and non-honors students alike.

In an effort to inform and create broad support, the Honors College established an interdisciplinary committee of faculty members from the social sciences, physical and life sciences, humanities, and the arts. A key conclusion of this committee was the importance of designing a research curriculum that emphasized the common threads of scientific inquiry in the research process in all disciplines (Matteson, 2004). Other important conclusions were that students must be fluent in the research methods of their discipline, and that they should be able to talk about their research with others not only in their discipline, but with those in other disciplinary areas.

The resulting research track offers classes in research, matches students with a faculty mentor in their major, encourages students to get involved in hands-on research early (ultimately leading to an undergraduate thesis), and assists students in finding and funding opportunities to present their research.  Professor James Duban, Director of the Office of Nationally Competitive Scholarships at UNT, notes that the more research experience students have, the more competitive they are for

prestigious graduate and professional schools, and for funding for their graduate education. In addition, many of the jobs in the information age in which we live involve research in one way or another, so that a research experience can enhance a résumé in a tight labor market (Duban, 2005).

*The Freshman Course.*  In this seminar-style course for freshmen, each student must choose a general topic in an area where they would like to do research and then develop a research prospectus for the topic. By this means, students begin right away to model their identities as researchers. A key feature of the class is having faculty members and Honors students who have worked together successfully to complete an undergraduate thesis to speak to the class from their own perspectives.  Freshmen, who are still quite limited in their interactions with faculty members, benefit from seeing University professors who are enthusiastic about working with undergraduates who take a serious interest in the research process.  And students new to college and to research profit enormously from seeing students who a year or two earlier were in their shoes and are now comfortable talking about a research project they planned and carried out as undergraduates. Students know faculty can do research – and think it is easy for us – but it is quite another thing for them to hear a fellow student discuss the problems, false starts, challenges and obstacles, and their ultimate successes.

This seminar also uses UNT's online undergraduate journal, *The Eagle Feather*, in place of a textbook. Student articles give freshmen a realistic view of what their final product should be –not a piece of research that will win the Nobel Prize, but a solid, well designed, feasible study that will help them learn the research process and contribute a bit of new knowledge to their area of research as well. This is especially true for learning to write a focused literature review on a specific research topic. Students spend the first third of a semester reading the literature reviews created by other students, searching literature themselves, identifying articles focused on their topic, practicing note-taking, and finally writing a review synthesizing the findings of the literature reviewed and suggesting the direction their own research might take.

One unfortunate truth is that many students come to college without having developed a good understanding of academic integrity, including a good understanding of plagiarism and the need to cite sources of ideas as well sources of direct quotes. Even those who understand the need to cite sources carefully do not grasp that there are several standard systems of citation. We recommend using one of the major systems – American Psychological Association, Chicago, or MLA – and socialize the students to use the system in all their written work so that use of the system becomes second nature.

While increasing numbers of students come into college with research experience in high school, we find that most students need a quick introduction to specific research methods in order to design a project for their prospectus. This need is met in at least three ways:

- Honors students who make presentations in the class discuss the methods employed in their work, giving students examples they can follow.

- Another means is through articles in *The Eagle Feather*. Each paper includes information about the research methods employed, making them visible to newer students.

- Finally, recognizing the need to provide students with information about a variety of research methods, the associate dean of the Honors College developed what we call just-in-time research modules describing basic research methods in the social sciences, physical

sciences and humanities. These modules are available online on the course homepage and are self-paced so that students may use these short courses to learn the basics of a specific research method in order to develop a short research proposal using that method. Examples from the social sciences include survey research, experimental design, and qualitative research methods.

Of course, students ultimately need to learn more rigorous research methods. As a part of their prospectus, they must present their plans to gain additional knowledge of research methods and data analysis, including taking more courses in research methods and statistics, as well as more substantive courses to gain depth in their field.

Students engaged in undergraduate thesis research are expected to adhere to the same ethical standards and to comply with the same research guidelines as more senior researchers.  UNT's Director of Research Compliance meets with the freshman seminar to discuss academic integrity, ethical treatment of human and animal subjects, and conflicts of interest, and explains how to avoid violations in their research.  The students also watch and discuss *Susceptible to Kindness* (1993), a documentary film based on interviews with some of the men who survived the Tuskegee syphilis experiment research.

Because all members of a university community could potentially be affected by violations of the rights of research subjects, all students in the course are required to complete the National Institute of Health's online training course on the protection of human subjects and to submit a completion certificate to their instructor.

Finally, students are required to present a poster on their prospectus at the University Scholars Day undergraduate event. To prepare their poster, students are given a template that includes a statement of the purpose of their proposed research, a summary of the major findings gleaned from the literature review, an overview of the methods they might use to conduct research on their proposed topic, potentially important findings, and acknowledgements of the faculty and administrators who have made their research thus far possible.

These presentations of their embryonic ideas serve a number of purposes. It forces the students to put their ideas on paper for others to see and critique, something students must learn to accept if they are to be successful researchers. Students are usually shy about presenting their ideas in a public forum and are often astounded by the positive interest faculty and administrators show in their work at the Scholars Day event.

Scholars Day prospectus presentations give faculty an opportunity to look over the work of students interested in pursuing an undergraduate thesis and allow faculty to recruit promising students to work with them.  The event also gives our Director of Nationally Competitive Scholarships an opportunity to scout the research talent early to identify students who could be mentored to be competitive within two to three years for a Rotary, Goldwater, Truman, or even a Rhodes scholarship. Prestigious scholarships have exacting qualifications that must be met – courses in public policy, experience in a government office, and development of an international research interest, for example.  In order to be ready to apply for these awards as juniors or seniors, students must begin planning and acting on their plans in their freshman and sophomore years.

*The Faculty Mentor.*  The research track is designed to be a partnership among Honors students, faculty mentors in the students' home departments, and the Honors College faculty. While the Honors College courses are designed to foster early interest in research, the completion of a successful thesis ultimately depends on developing a successful collaboration with a faculty mentor in their area of research.  In the freshman course, we begin to mentor the students on how to identify potential mentors through scanning faculty curriculum vita, networking with other thesis students and faculty in their major, choosing their courses and their instructors with the thesis in mind, and involving themselves in research experience where they are likely to encounter potential mentors.

Students are encouraged to develop a research-focused curriculum vita to introduce themselves to faculty. Classroom discussions highlight the etiquette of interacting with faculty, including always making appointments, always showing up on time for appointments, and arriving at each meeting with a purpose. Students are encouraged to provide the faculty member with a document related to the purpose of the visit – a curriculum vita, an abstract of proposed research, or an outline of a research plan, for example.  Students are encouraged to tailor their thesis ideas to best draw upon the expertise and interests of their faculty mentors. They are also encouraged to thank their mentor and acknowledge their mentor's guidance of their work as a courtesy to faculty members who often receive little formal recognition or appreciation from their departments for their work with undergraduates.

After years of reading assigned reading, taking tests and exams with content decided by their teachers, and writing papers on topics assigned to them in class, many students experience a great deal of anxiety when left to choose their own topics and readings, and to structure their own methodology. (Of course, this is common among graduate students and even seasoned faculty members as well.  Anxiety goes with the territory, and this is also a useful lesson for student researchers.)  UNT's Counseling and Testing Center works to support students with a variety of services, including tips on dealing with perfectionism, procrastination, and anxiety – common among Honors students.

*Research experience.*  In addition to coursework, students are encouraged to get hands-on experience, preferably by their sophomore year before they begin developing their formal thesis research proposal.  Students are asked to search on their own for faculty mentors with whom they may work on funded or unfunded research projects. They may also participate in summer research programs designed especially for undergraduates including the National Science Foundation's Research Experiences for Undergraduates at UNT or, preferably, at other campuses around the country. There are also numerous research opportunities available through local, state, and federal agencies, as well as businesses and arts and entertainment organizations.

The Honors College maintains a list of possible research experiences sites that are specific to our student body and region.  In addition we refer our students to other useful sites including WebGURU, the National Science Foundation REU site, and the NIH internship website (URLs for these are listed in the References section at the end of this document).  To encourage increased faculty and student participation in NSF and NIH research opportunities, the University of North Texas has recently hired two new research development officers with special knowledge of these two organizations. These officers mentor undergraduate students as well as graduate students and faculty through the application process, greatly increasing the success of our undergraduates in locating placements in research experiences funded by both organizations.

*Thesis.* By their third year, students are required to have a commitment from a faculty mentor who has agreed to supervise their thesis. Our experience has been that without this commitment, the thesis will never come to fruition. Students take a junior-level research course in which they are required to produce and defend a completed research proposal by the end of the semester with all research compliance documents completed as well. The proposal consists of a statement of purpose, a completed review of the theoretical and research literature, a fully developed research plan, a timeline for proposed completion of the thesis project, and a budget for the project. As with the freshmen, the juniors are required to present their work in progress at University Scholars Day. In addition to using examples of completed theses by UNT students published in the online journal, *The Eagle Feather*, we also use Charles Lipson's excellent guide, *How to Write a BA Thesis* (2005).

When students are ready to complete their thesis, they work primarily under the direction of their faculty mentor in their major department. The Honors thesis has been incorporated into the curriculum of all departments with an undergraduate major, which gives department faculty ownership of the thesis and the credit. Honors College faculty members remain available to serve on thesis committees and to advise the student, at the discretion of the mentor.

Once theses are completed, students are encouraged to present their research in a variety of student venues, including the University Scholars Day event. We also encourage our students to present in regional conference such as the Great Plains Honors Council, and national student-oriented conferences such as the National Collegiate Honors Council and the National Conference on Undergraduate Research. These conferences give students the opportunity to hone their presentation skills among their peers in a relatively non-threatening environment beyond their home campus.

Students may also publish their research in UNT's online undergraduate journal, *The Eagle Feather* (www.unt.edu/honors/eaglefeather). The senior editorial staff members are faculty in the Honors College. Student associate editors are also involved and receive course credit in a publishing and editing independent study class in the summer. Student editors are carefully trained to screen research articles submitted for proper use of the English language and for proper formatting of the paper in one of the three style manuals – APA, Chicago, and MLA. If the student work is of sufficient quality – and much work by our students is – we encourage faculty to take students to prestigious national conferences in their fields of research and to publish with them in professional journals.

In our experience, presenting completed research projects in oral and written forms is addictive to our undergraduates. Once they have experienced the sweet adrenaline rush of the spotlight, they are eager for more. And, we know, these students are the ones who go on to the most prestigious graduate and professional programs and are the most likely to have research fellowships to prepare them for their eventual careers.

## Mentoring:  Helping Students See Themselves as Scholars

Undergraduate students too often think of themselves as consumers:  consumers of knowledge, consumers of educational services, consumers of career training.  One of the great benefits of the expectation of scholarship by our students is that they shift their self-narrative to one of action and responsibility.  And one of the ways we can do this is by engaging along with them in the same work, modeling what scholarship looks like through the very same projects they've taken on.

At Duke University, all first-year students are required to take a course called Writing 20: Academic Writing.  Taught by post-doctoral teaching fellows from dozens of different disciplinary backgrounds, most courses introduce students to both topical material and to academic writing by having them take up serious independent research.  For instance, one of us led a course called *Ghosts on the Landscape: The Abandoned Buildings of Durham*, in which students came to understand modernity and cultural patterns of (dis)investment through the close examination of abandoned commercial buildings near the Duke campus in Durham NC.  Thirty-six students worked in teams of three to examine the factual history of a dozen buildings: hotels, neighborhood groceries, retail shops, offices.  After collecting construction and ownership records, zoning and insurance maps, and historic photographs as teams, each student then used that building and its history to talk about a specific aspect of urban change.  For instance, three students worked together to uncover the factual history of the old Holiday Inn, but then took their interpretive work in three very different directions.  One student discussed the nature of business travel before and after the construction of the regional airport; another student talked about the rise and fall of major commercial chains; and a third talked about the building as an element of Durham's racial history, as a site of segregated dining and of civil rights demonstrations.

In addition to the field research, students read major theoretical work in modernity and urbanism.  Rather than a textbook with its pre-packaged interpretations (which strive to seen "neutral"), students engaged with lively, opinionated original texts:  Marshal Berman's *All That Is Solid Melts Into Air* as the "master text," complemented with articles and chapters from major journals and edited collections.  Also, each student was assigned an additional book that focused specifically on their emerging research interests, and was required to write and present an interpretation of that book for her or his colleagues.

The course was guided by its instructor, but students were introduced to the university library's local history collection and its staff, as well as the director of education for the local historic preservation society; each of them led one or more sessions of the class, not merely so that they could deliver content expertise but also so that students could understand something of scholarly collaboration.  Those partners also generously made themselves available for telephone and e-mail consultation with individual students' methodological and interpretive questions.

The historic preservation society also held a second role in the course: that of client.  The organization had conducted inventories of first-tier historic sites in downtown Durham, the factories and theaters and bank buildings that had once formed the city's economic and cultural core.  But the group had not had the resources to turn their attention to second-tier buildings, the kinds of neighborhood-scale ventures and places that form so much of a community's civic fabric.  In the end, these students' interpretive efforts (captured in the form of extraordinarily detailed and visually rich PowerPoint documents) became part of the preservation documentation of the city, in use not

only by the preservation society but also by the Durham County and Duke libraries that had been so instrumental in providing access to primary documents.

These kinds of intellectual adventures can mark the transition in students' lives from reader to thinker, from consumer to producer, from student to scholar. And it was important that the instructor had not had prior history with these buildings, either. He helped students create interpretive frames for what they were seeing, but he was equally a learner of the details of Durham's urban history (and had only lived in the city for eight months at the time the course began). So when questions arose, he was able to model the skills and attitudes of an engaged scholar, uncertain about emerging factual details but capable of finding those facts, and more importantly, linking newfound facts to interpretive and argumentative frameworks. It is crucial to contrast this kind of work with the sort of imitative research that students so often encounter, in which students deal with something new to them but well-trod by others. In this case, these first-year students were truly doing research that no one else had previously done, and for which there was strong community interest.

## **Combining Undergraduate Research with other High-Impact Pedagogies.**

As in the example above, good undergraduate research is often difficult to distinguish from community service or from travel programs. Travel abroad and service learning provide unique prospects for undergraduate research. Students have an opportunity to immerse themselves in a different culture, and can engage at a new level with the communities in which they are a part. At the same time, however, supervising and mentoring students who are conducting research abroad or in the local community can also provide distinctive challenges for both faculty and students.

At Linfield College (OR), studying abroad is an important component of the undergraduate experience. Over half of the students travel abroad at some point during their undergraduate career; in 2005-2006, the Institute of International Education ranked Linfield 11th out of all U.S. baccalaureate institutions for undergraduate participation in study abroad. Students in the Department of Sociology and Anthropology are strongly encouraged to spend at least one term in another country, and students are increasingly choosing to conduct their senior thesis research during this time. Since 2004, students have gathered data in places such as Belize, Bolivia, Great Britain, Ghana, Mexico, and Korea.

At least three key factors are involved in making this type of undergraduate research successful: selection of students, preparation, and flexibility/adaptability. All are related to the "key traits of mentorship" noted earlier. First, selection of students requires a degree of forwardness. Not all students have the skills, maturity, or drive to engage in research while away from the direct supervision of a faculty member. Also, because research abroad requires a great deal of preparation (see below), faculty members should constantly watch for students with the potential to be successful, as it is beneficial to identify them early in their academic careers. At Linfield College, only students with a cumulative grade point average of at least a 3.2 and a grade point average of at least a 3.25 in their majors are allowed to undertake an honors thesis, and most students who travel abroad are juniors or seniors. Language fluency is also an important consideration, as students must have the skills to adequately communicate with their subjects.

Second, faculty mentors/supervisors must take special care to prepare students for their work. In the Department of Sociology and Anthropology at Linfield, students generally take the required

social research methods course during their junior year. In cases where students have not yet taken a research methods course, faculty members prepare special readings and provide individualized instruction that will provide students with sufficient background to be able to conduct their research. Before they leave, students also meet with departmental faculty and are assigned a primary thesis advisor, who serves as their primary point of contact while they are away.

Preparation may also involve recognizing and locating alternative mentors. Because students travel to a diverse range of locations, departmental faculty members do not always have adequate knowledge about the countries/cultures to which students may travel. At Linfield, approximately eighteen percent of full-time faculty members are involved in some type of international project each year, which provides students with a wide resource base from which to draw. Finding a faculty connection in the destination country is also beneficial, as students tend to feel more secure when they have a specific person with whom they can communicate in the local area.

Finally, and perhaps most importantly, flexibility and adaptability are essential. Both are related to the earlier discussions of persistence and emotional honesty. Research abroad can pose several unique challenges, and students should be prepared for the struggles that they may face. For example, some students at Linfield have arrived at their destinations to find that their original plans have been rendered irrelevant, and, based on limited time in the field, have needed to rapidly develop new research strategies. A student traveling to Ghana, for instance, had planned to survey a large number of college students regarding factors that influence their healthcare decisions. Although she had contacted officials at the school and had secured permission to conduct surveys, these plans fell through when she arrived. She quickly trained other students to help her to conduct interviews, and found her respondents on the streets of Accra instead.

Others students have returned to campus only to discover that they did not gather the quantity or quality of data that they wanted or needed. Since students generally do not have the resources necessary to make another trip, they have had to rely on other methods of data collection, such as secondary sources, after they have returned to campus. For example, a student conducting research on the social and economic impacts of conservation organizations on Belizean fishing communities supplemented her data by conducting a content analysis of the mission statements and web pages of organizations that govern conservation.

Overall, students need to be aware that the struggles they face are a normal part of the research process. Faculty members should share their own experiences in this regard, helping them to understand that, while research is rewarding, it can also be frustrating and tedious. Connecting future thesis writers with students who have already conducted their thesis research abroad is also beneficial, as hearing the perspectives of others like them can help to ease some of their anxieties.

On a final note, in addition to being flexible and adaptable with regard to possible obstacles during the process of data collection, students should also be encouraged to remain open with regard to their topics. Some students may arrive at their destination to find circumstances or situations that offer unique opportunities for study. At least two Linfield students were abroad during times of social unrest in their host countries, and both decided to take advantage of this distinctive learning opportunity by focusing their theses on current events. One of the students, for example, wrote a compelling thesis about public discourse surrounding the 2005 terrorist bombings in London, England, while the other examined resistance art in Oaxaca, Mexico during the political protests of

2006. While neither project was the original intent of the students, these circumstances provided great research opportunities.

Similar types of issues arise when synthesizing undergraduate research and service learning. Working with organizations outside of the college can help students to make important community contacts and use their research skills in an applied fashion. However, students must also be prepared for their work, and must understand that flexibility and adaptability are important here as well.

Service learning projects generally do not allow faculty members to be as selective as they can with travel abroad with regard to student participation. However, faculty can help to ensure that students are in the best position possible to synthesize research and service learning by placing service learning opportunities carefully into the curriculum. For example, in the Department of Sociology and Anthropology at Linfield, major service learning projects take place primarily in upper-division courses. This also helps with regard to preparation, as upper-level students have generally taken a research methods course. Again, faculty should take measures to help those students without an adequate background by providing individual instruction when possible.

As with research abroad, preparation may also involve recognizing and locating alternative mentors. Organizational personnel often have skills and knowledge that are beyond the scope of faculty and students. These individuals can serve as mentors and experts as students prepare for and conduct their research.

Finally, flexibility and adaptability are, again, essential. Community organizations may have a different sense of time, as well as a different perspective regarding the expectations and roles of students. Students need to understand the diverse needs and expectations of those with whom they are working, and must be able to work with contingencies. Some of the organizations with which Linfield students have worked, for example, have been understaffed, and, therefore, existing staff are overworked. At times, it has been difficult to schedule meetings, as staff members have not always been available during the regularly scheduled course block. Adjustments to course syllabi have been necessary, which tends to frustrate students who prefer clear structure. Students have also been discouraged when their attempts to contact staff members via e-mail have not been met with an immediate response. Preparing students in advance can help them to better comprehend a diverse set of expectations and realities, and may help them to understand the ways in which community-based research is fundamentally different from that to which they may be accustomed.

**Ethical Concerns**

A discussion of mentoring social science students in the early stages of their scholarship would not be complete without a discussion of ethics. Social science research often requires the use of human subjects, and it is crucial to help students understand some of the ethical issues involved in human subjects research. Any research that is "designed to develop or contribute to generalizable knowledge" is subject to approval by an institutional review board (Office for Human Research Protections, Code of Federal Regulations, Title 45, Part 46). This includes, for example, undergraduate research that is to be published or publicly presented beyond the confines of the student's institution (including presentations or posters at student conferences such as NCUR, the National Conferences on Undergraduate Research).

Course projects have traditionally been exempt from formal IRB approval, but this is increasingly not the case.  Appendix A shows the human subjects policies at 25 selected colleges and universities; many of them require a research-methods course instructor to file a course-wide waiver which binds all of the student projects to certain standards (typically non-publication; no sensitive topics; no vulnerable populations; no connection between data and identifiable participants or participant groups).  In addition, many schools require methods instructors to pass college-based or externally-based ethics training, and to teach ethical practices as part of those methods courses; some colleges require that the students themselves go through college-sponsored ethics training.

The Council on Undergraduate Research (CUR) has recently begun a Research Ethics Initiative, which will compile best practices for ethics and responsible-conduct reviews related to student research.  The project is envisioned as a two-year initiative, which will result in publications and possible recommendations for college administrators, IRB members, and professional societies.  We hope that this work will help to clarify the uncertain processes of review of student research.

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## Appendix A:  Student Research Policies at Selected Colleges and Universities

Note:  "IRB / Determination Necessary" means that a project must either a) be reviewed by the full IRB, or b) receive a determination of <u>minimal risk</u> by an IRB Liaison (usually a department chair or dean authorized by the IRB to make such decisions).

| College or Organization | Student-Originated Research | Student Research as Class Project |
|---|---|---|
| University of North Carolina | IRB/Determination Necessary | IRB <u>only</u> if intent to publish |
| St. Olaf College (Minnesota) | IRB <u>only</u> if intent to publish | Projects governed by internal code of ethics |
| Waterloo University (Ontario) | IRB for course projects or honors projects – instructor or supervisor must co-sign application | |
| University of Florida | IRB/Determination Necessary | IRB <u>only</u> if intent to publish ("If at any time the goal of the project is changed so that the resulting data will lead to generalizable knowledge, the project must be stopped, and an IRB submission completed.") |
| Arizona State University | IRB/Determination Necessary | Instructor determination that the projects involve minimal risk, do not involve sensitive topics or vulnerable populations, AND results will never be distributed outside the classroom and/or institutional setting. |
| Indiana University | IRB/Determination Necessary | Instructor determination that the projects involve minimal risk, do not involve sensitive topics or vulnerable populations, AND results will never be distributed outside the classroom and/or institutional setting. |
| Canisius College (New York) | IRB/Determination Necessary | IRB/Determination Necessary |
| University of Maryland-Baltimore County (honors college) | IRB/Determination Necessary | IRB/Determination Necessary (special Class Project procedure) |
| University of Montana-Missoula | IRB/Determination Necessary | IRB/Determination Necessary (special Class Project procedure) |
| University of Wisconsin | IRB/Determination Necessary | "…must still be planned and carried out with due consideration of the University's ethical and legal responsibility to protect individuals who participate in these activities, especially when participants are exposed to more than a minimal risk."  Both faculty and students must complete university's Human Subjects Training. |
| Southern Utah University | IRB/Determination Necessary | Instructors must submit a Class Project Research Application each semester.  No student research on sensitive topics or vulnerable populations.  Instructors must approve individual research plans. |
| University of Mississippi | IRB/Determination Necessary | Class project waiver if a) no presentation beyond the college, b) no vulnerable populations, c) minimal risk, d) no deception, and e) no videotaping. Instructor to submit a class project waiver application, and train all students in human subjects protections. |

| College or Organization | Student-Originated Research | Student Research as Class Project |
|---|---|---|
| University of Arkansas-Little Rock | IRB/Determination Necessary | Class project waiver if a) no presentation beyond the college, b) no vulnerable populations, c) minimal risk, and d) no link of specific person with data. Instructor and students must successfully complete college online training program in human subjects protections. |
| Iowa State University | IRB/Determination Necessary | Class project waiver if a) no presentation beyond the college, b) no vulnerable populations, c) minimal risk, d) no deception, e) no link of specific person with data, and f) no person involved is compensated for the research.  Specific informed-consent practices must be followed. |
| University of Toledo | IRB/Determination Necessary | IRB only if intent to publish. Instructor and all student researchers must complete research ethics education. |
| Columbia University | IRB/Determination Necessary | Class project waiver if anonymity is protected.  Faculty advisors must complete research ethics education. |
| John Carroll University (Ohio) | IRB/Determination Necessary | IRB only if intent to publish |
| University of Portland | IRB/Determination Necessary | IRB only if moderate or high risk, or intent to publish |
| University of Southern Maine | IRB/Determination Necessary | Individual student projects to be reviewed by IRB if a) intent to publish, b) sensitive topic, or c) vulnerable population.  Faculty members to submit class project overview form and complete NIH human subjects protection training. |
| Boise State University | IRB/Determination Necessary, AND all PI's (student or faculty) must complete online human subjects protection training.  NO UNDERGRADUATE STUDENT MAY ACT AS PI on human subjects protocols. | IRB only if intent to publish |
| Colgate University | IRB/Determination Necessary | Individual student projects to be reviewed by IRB if a) intent to publish, b) sensitive topic, or c) vulnerable population. |
| University of South Carolina | IRB/Determination Necessary | IRB only if intent to publish |
| James Madison University | IRB/Determination Necessary.  All human subjects researchers to take online training course. | IRB/Determination Necessary.  All human subjects researchers to take online training course. |
| Tufts University | IRB/Determination Necessary | IRB only if intent to publish or if research carried out in health care (due to HIPAA regulations).  Instructor must have completed IRB training and complete "research practica registration form" for each course section. |
| College of St. Catherine | IRB/Determination Necessary | IRB/Determination Necessary, but may be done through a "class protocol" for research-based courses. |