Learning are dialectic processes which are co-enriched through honesty, openness, and reflection. We need to understand ourselves, both to see the qualities we possess, which can be our strongest teaching assets, and to recognize how to help students relate to us as teachers.

My own working class, first-generation background had long been buried, and it took a while for me to retrieve it. We experience the uniqueness of our own life experiences without claiming categories or stereotypes, and I saw this initial reluctance to claim my working-class identity as an invitation to recognize the complexity and individuality of each student while recognizing the possibilities various life experiences might bring. There isn’t one standard working-class or first-generation background; this is not a search for stereotypes. Each student has his or her own life experience as do I.

In striving for self-understanding, one memory stood out for me. I had supported myself during college, first through waitress jobs and then through jobs conducting data analyses for professors who were from the pre-computer generation. My first task on beginning graduate school was to find a job. The department secretary told me that William H. Sewell, then President of the American Sociological Association, was looking for a research assistant, and she gave me his number. I was shocked to see that it was a long distance number. I had made few, if any, long distant calls in my life, I didn’t know how to do it, and I assumed that I couldn’t afford it. I continued my job search on my own campus. A few weeks later, the department secretary asked me about the Sewell job. She showed me how to make the call on the department phone. I had a similar issue with hotels. I had never stayed in a hotel at this stage of my life, and during conference travel in graduate school, I always sought alternative lodging—staying with a friend of a friend, for example.

Thinking about these past experiences told me that I really had to see myself as a person with a working class background. These concrete memories got me started in recognizing less concrete barriers that I had faced, which also had repercussions for my academic life. As a lesbian who grew up in the 1950’s and 1960’s, I also had no shortage of other experiences which allowed me to feel like an outsider. Reflection on my own outsider status helps me to see the ways that everyone feels alienated at some time and to some degree and to see that this alienation can be a source of creativity.

Being, at some level, an “outsider” is an advantage for a sociologist because the social patterns and institutional structures which others may take for granted become problematic and, therefore, available for analysis. Neither of my parents had gone to college. In graduate school, I discovered that most of my fellow
students were from families of college graduates, and some were the sons and daughters of college faculty. Of course, they understood how academia worked. At the same time, observations that seemed obvious to me, particularly those regarding inequality and social justice, could be incomprehensible to the seemingly advantaged group.

I became a sociologist because I had experienced the normally hidden effects the larger social structure and systems of inequality had on people, and I wanted to work to uncover these patterns so they could be recognized and become targets for change. My students, most of whom are African American, Latina/o, and/or the first in their families to attend college, can have this same outsider advantage if they can build the confidence to recognize the significance of what they can see from their own unique position in society. Summer Institute emphasizes the importance of helping students to understand the advantages their own backgrounds provide as well as their own unique challenges. By recognizing our own strengths and limitations, we can be more successful in helping our students recognize theirs. As Parker Palmer (2007) explains, the best teaching methods for any one of us are the ones that flow from our own personhood.

**FIND THE BARRIERS TO SUCCESS IN UNDERGRADUATE RESEARCH**

My Summer Institute project was to re-design a research methods class to make it more effective for a diverse student population which included students previously stereotyped as not excelling in research. Knowledge comes from human activity and thought, and it can be challenged, critiqued, and enhanced on that basis. Students need to leave college with confidence in their own ability to evaluate information and opinions, and they need to have the habit of evaluating what they hear and read. This level of confidence was difficult for me in college, and it is difficult for most of my students.

The specific goal of the project was to redesign a class in applied research methods — combining program evaluation and advanced program evaluation — with the goal of increasing retention and graduation rates for Sociology-Anthropology majors from low income and working-class backgrounds as well as students of color. First-generation students and students of color were often less in tune with advanced research methods classes as they were traditionally taught, and, therefore, less successful.

Research methods classes are rarely seen as contributors to campus diversity. This area of the curriculum, traditionally, has not addressed diversity. I planned to build diversity into the pedagogy to match the diversity of the students in the class: to redesign the class to take non-traditional student backgrounds int account, thereby expanding the accessibility of the class to a broader population of students.

My own strengths and weaknesses as a college student learning to become a researcher were clear to me. Mine was the generation that experienced the entrance of high speed data analysis into academia. Mastering the craft of research, including statistical analysis and data management, was achievable, but the dialogue of ideas was a challenge. I knew, intellectually, that conference presentations, journal articles, and other reports of research are a part of a conversation about how the world works that brings us closer and closer to accepted theory. At the same time, I had an underlying belief from my working class background that a book or journal article had a mystique that disallowed critique.

In my mind, as a beginning college student, if something was printed, it must be true. In my household, as I grew up, books were few but sacred. What was there was permanent. I knew, intellectually, that a text was a human creation subject to human limitations, a product of a particular time, place, and social location. Emotionally, I didn’t believe it. The core of research, critiquing ideas, ideas published in academic articles, felt foreign.

Many students enter college, as I did, with a belief that knowledge resides in books. From the mainstream high school perspective, research consists of finding the answers from books. Books are seen as artifacts in a library, not human creations subject to evaluation. Most of my students, who come from low-income and working-class backgrounds, face these same barriers, and I now understand them better. Adler & Adler (2005) identify a transition from being a “good student (a consumer of information) to becoming a scholar (a producer of information)” (p. 19) as a major crisis point in which many students give up their academic aspirations. Many of my students today have this same difficulty. They can become extremely confused if we read a research article and then discuss the limitations as well as the strengths of the research it reports. Students tell me some version of: “Why did we waste our time reading it if it was wrong?”

The gulf between seeing statements in books as “the truth” and conducting research is deep. Traditional research methods texts begin with a chapter presenting the idea that the scientific method replaces unscientific sources of knowledge with systematically collected and analyzed observations to test hypotheses and eventually inform theories. Students whose backgrounds do not give them an academic orientation can be disoriented by the textbook view of research. The idealized image of research presented is detached from a true
description of the day-to-day craft of what researchers actually do: “99% perspiration and 1% inspiration” (attributed to Thomas Edison).

Current research in the Sociology of Science points to perseverance as a main determinant of progress (Kass, Soubia & Thornaby, 2006; Russell & Atwater, 2005). Perseverance requires a belief in oneself, the confidence that the work will eventually succeed. A good understanding of the barriers students face can redefine our role as teacher and refocus the subject of a class. To be effective in guiding students in their growth, we need to define the goals of the class, given the strengths and current challenges of the students.

**DIMINISH BARRIERS AND TAKE ADVANTAGE OF STRENGTHS**

The transition from a fearful, passive consumer of information to a courageous, confident participant in scholarly dialogue is the key to becoming successful in research. This transition had to become prominent and explicit in the redesigned research methods classes. The new class contains activities which build students’ confidence and deepen their understanding of the human process of knowledge building. The class promotes perseverance – persistent hard work motivated by a belief in both oneself and the importance of the project.

**Uncover the Humanity in the Research Process**

One way to stimulate critical thinking is to begin with texts that are easy to critique. When I was a child, my parents bought an encyclopedia from a traveling salesman. The shocking articles on race and ethnicity presented long discarded “data” on brain size and “primitive” cultures. Even I could see the folly in this “science.” You would think this sort of pseudo-science would be long gone from a university library, but one day, in desperation to help a class become less passive and more active in discussion of research texts, I was able to find similar texts in the library – old anthropological texts and books written in the colonial period – and bring them to class for discussion and analysis. Students did become engaged in critiquing the works and discussing the world views which produced them. We looked at the publication dates – 75 or more years in the past. Then, I asked the students to imagine how students in the future, in the next century, might view the work being published today. This was harder, but it was possible for some students to imagine the work that we might enthusiastically embrace today might be seen as full of errors in the future.

The research projects begin with exercises to emphasize the humanity of the authors of the published research. Students search journal data bases for articles connected to their proposed research questions. They identify an important article which has been cited often. They find out who the authors of the article are – not only where they were when the article was published but where they are now. They look for the authors’ home pages or vitae if they are available on the university web site. They might find a picture of the authors’ dog or family, or syllabi of courses they teach. If students have a question about the research methods or the location of an unpublished report, they email the author. Students are thrilled when they hear back from an author and they are often mistaken for graduate students. They begin to take their academic selves seriously.

**Focus Research on Problems in the Community**

The new design engages students in applied research for nonprofit organizations working on issues students care about. The students’ attention is directed outward: to solving a problem that they care about – food insecurity, domestic violence, services for people with disabilities, high school dropout rates, or some other issue which a community organization brings to us. In this outward focus, self-consciousness is diminished. When they are engaged in providing a new understanding of an issue for people in the community who are working on problems, the students’ caring about the project, their feeling of professionalism, and their confidence grows.

This approach was successful in working on the issue of hunger in Kenosha County. We had interviewed the clients of food pantries in Kenosha County a few years earlier. With a serious recession on their hands, the food pantries wanted a replication of the study to understand the changing nature of their clients during a period of major stress. The original study had uncovered the fact that, compared to other groups, Latina/o households in the community were waiting until their level of household food insecurity was more severe before visiting the food pantries. The food pantries had tried to engage in more outreach to their Hispanic clients, including increasing the variety of foods offered and providing exclusive, secure, Hispanic times and locations for food distribution.

Students can read chapters in their text on the research process, but until they face the experience of engaging in research themselves, the chapters can be very abstract. For example, one textbook the class uses (Babbie, 2010) has an excellent chapter on interviewing. The students’ discussion of their own experience shows how hands-on engagement makes it real. Interviewing involves not just reading questions and recording answers but deep listening and building relationships of trust with interviewees.
In order to capture how the students were doing, a paid student research assistant interviewed the students confidentially to catch problems and hear the students’ stories. I didn’t see these interviews, conducted in 2010, and 2011, as part of the IRB contract, until 2014, several years after the class ended, after all of the students in this group had graduated. Excerpts from interviews, below, illustrate students’ perceptions of their experiences.

The thing I did want to say; before I went to the food pantries as much as I like to talk to people, I was nervous about how would I approach people at the food pantries and say "hi my name is such and such and I have this survey I would like for you to do" It's one thing to read the consent letter and another to have a rapport to develop a consent on whether or not I would get them to do the survey. So I was a little nervous about how to address that. I didn't want anyone to feel like I was approaching in an aggressive manner because I figured that would make people feel more close lip or defensive. So I just wanted to find a non-threatening way to approach people (student interview with fellow student).

The first time I went there I was kind of nervous. . . . I was thinking . . . I was invading into their privacy and stuff like that, but they were okay with them, and I told them what’s going on and what it was done for, and it was not a problem. . . . but I knew we have to get this out there so people know what’s going on (student interview with fellow student).

From the first interview I did to the last it was a completely different experience at first it was a bit more professional and serious you know: I will be asking you questions please answer them and then that was it. As it went on I'm just trying to hear their story as a person and as a human being and I was more down to earth with them and trying to understand where they were coming from (student interview with fellow student).

An important observation from all of these student-on-student interviews is the level of professionalism that comes through. There are no examples of students stepping out of the researcher role – for example, by complaining about their grades. Students care about the success of the project. The culture of the class is far different from what I have observed in traditional classrooms where students take a more passive role.

Another observation is that the students show a high level of respect and gratitude to the members of the study population. They have progressed well beyond widespread stereotypes of people living in poverty. Most students who themselves have low-income backgrounds recognize disadvantages coming from that background, but they usually don’t recognize the special understanding and ability that they themselves have. When the low-income community is a subject of the research, their own expertise in understanding that community becomes recognized and valued. It was crucial to interview members of the Hispanic community in the new study. Students who came from Latina/o communities and spoke Spanish were essential members of the study team when we were adapting survey instruments to the population, including Spanish translations. Spanish speaking interviewers were also needed. Students worked in twos, and students who understood the community and spoke Spanish were sought out by students from other communities for their expertise in the community and for their facility with Spanish. African American students also brought an understanding of the African American members of the study population and the crucial ability to gain the trust needed for meaningful interviews. Another part of the study population with special needs was the HIV-positive client base of the AIDS Resource Center. Students who had experience with this population were able to gain the trust of the Center and include their food pantry clients in the study. In these cases, the voices of a group on the fringes of mainstream acceptance were successfully included in the final report, and their needs were considered when the results of the research were used in decision making.

Students from middle-class or high-income communities also learn from their participation and from their work with the students from low-income communities. Some students are surprised when they see themselves as connected to communities from which the food pantry clients come, and once they begin interviewing, they see that food pantry clients come from all parts of the community. This student interview quotation is an example.

My brother you know there was a time like I said before when he was disconnected with the family and I knew he went to a food pantry before. So may that's why I just know it could be your brother, your sister your auntie, or yourself who visits a food pantry and everyone who visits a food pantry deserves the same respect that anyone else would receive and I would hope that if I am able to help in any way I would do
that so. That was kind of my interest. Just to see what I can do...how I can help and I discovered in the process that actually my sorority can help by doing a toiletry drive (student interview with fellow student).

The heart of research is connecting the concrete and the abstract – connecting data with concepts and the relationships between concepts. The textbook emphasizes the importance of objectivity and independent data and devalues excessive subjectivity, but what does that mean? Is anyone really objective? Is it all a matter of opinion? The trick is to find objective evidence that leads students to a new way of seeing.

The goal of getting students to care so much about the project that they forget their fears is promoted by finding projects that connect to issues and places the students already care about. Engaging students in community-based research projects can make research more real by working on real issues. A second benefit is that it puts students into professional roles, which build self-confidence. However, community-based research in a class puts a heavy burden on faculty because it requires more time than most other classes to support both the students and the community partner.

Make Students Members of a Community of Scholars

A researcher is not a loner but is a part of a community. Professional relationships provide energy and resources to support perseverance. Knowledge often rises out of dialogue. Students need to understand the concept of a community of scholars as more than an abstract idea. They also need to experience it. Rather than knowledge being located somewhere, where the researcher looks and finds it, students need to see a process of raw data colliding with a human brain, a brain that has been shaped by a social group -- knowledge as a human creation which evolves and can be cumulative. Students’ views of themselves and each other also need to change. They need to see themselves as valuable holders of unique perspectives, grounded in experience, which, when integrated with systematic data collection and analysis, can make them creators of knowledge. Seeing themselves as mattering, they become invested in finding answers to questions worth answering. My goal in redesigning research methods classes for this project is to help students to cross this bridge.

Students work on the research in teams, and explicit attention to successful teamwork along with the value of having a diverse team is a part of the class.

I think our group is great now. In the beginning I thought there were some who didn’t want to work, I thought there were some who wanted to do all the work, and then I felt that there was a miscommunication. I talked with the group about it – everyone being part of the group and everyone taking their part in the group where we had an open communication and no one was left out, I thought everything was fine after that. I think so, actually when we had this conversation about group and everyone sharing information and being part of the emails (student interview of another student).

The community of scholars the students are building includes future students in these classes. At the end of the semester, the students write letters to the students who will continue their project or begin new projects during the following semester. Their advice in these letters provides an insight into the students’ growing level of confidence. In one letter, students in one group who were assessing a program which was helping women leaving violent relationships wrote, “Remember this is more than a college class. You are helping to maintain and improve a valuable program that many women in need depend on to survive” (Fall 2010: Women’s Development Group).

Another group of students both summarized their own progress and gave important advice.

This has been a continuing research project over the last four years, with new data and analysis added each year...In preparation for this project there are a few things that will play a key importance in success...First and foremost is Communication. Make sure to keep in contact with all members of the research project as well as Professor S. and Professor H. This will help to keep everyone on the same page and hopefully allow the project to run without error (Fall 2011, Science Program Evaluation).

Team projects can help give confidence and put a peer-supported focus on problem solving. When it isn’t working well, one student can take on too much, or a student can be pushed out of the group and blamed for problems. Team management and training needs to be a separate focus of a class that includes teamwork.

One team wrote about their teamwork experience in their letter to future students.
We are partnered with the Hunger Prevention Council of Kenosha County in continuing the study of food security in Kenosha County. Previously, the students working on this project added to the literature review and reshaped the questionnaire with additional questions for the 2010 survey. As continuing students, this project needs you to enter the data of the surveys into SPSS and create an analysis of the data. Also a results section and a report section of the findings should be reported to the Hunger Prevention Council of Kenosha County. We hope that this project next semester brings you the great and memorable learning experience it has given us (Fall 2010 Hunger Assessment Team).

 Providing students with opportunities to present their research to a larger audience, such as an undergraduate research conference, gives students a view of a large community of scholars of which they are a part. A danger is that it can leave out many students if only the “top” students are given this opportunity. By helping the whole research team work on the presentation or poster, students benefit from this experience no matter what their level of research sophistication, and students learn how to be an effective team member or team leader. One student created his first pie chart after many false starts. He was overjoyed when his group decided to include his pie chart on the poster they were preparing for presentation at the University of Wisconsin System Undergraduate Research Conference. He had grown from trying to see the numbers on the data table as having meaning, to creating a frequency table, to producing a chart, and then presenting it to an audience.

 In all of these methods, students are working on real research, not just reading about it or talking about it in the abstract. As the teacher, I become a coach, model, an expert consultant, and largely put aside the lecturer role. A number of investigators have identified undergraduate research to be a source of important benefits to students. Undergraduate research helps motivate student retention to degree. It motivates students to pursue graduate degrees and research careers and provides students with professional credentials, including presentations and letters of recommendation (Adedokun, et al., 2012). Students who participate in undergraduate research perceive greater gain in a number of critical thinking skills compared to students who do not take part in undergraduate research (Bauer & Bennett, 2003). In summary, undergraduate research gives students confidence, practical abilities, and an understanding of where the knowledge reported in most of their textbooks comes from.

 Undergraduate research is valuable for all college students, not just for the few who are already highly academically oriented.

 The students become members of a community of scholars, sometimes communicating with authors of studies related to their project but always conducting internet research on who these people are as real people. The students present their work at undergraduate or professional research conferences, where they present their research in poster sessions or oral presentations, answer questions from people who are interested in the research, and see that their work is valued. They meet other researchers and see themselves as peers in a broad community of scholars. They gain recognition both from this experience and from the community partners who requested the research. Students develop papers and posters to add to their senior portfolios, gaining an advantage when they later enroll in the required Senior Seminar.

 On a campus in which the students are predominantly commuters, students can come and go without connecting. Students in this class build connections. The work is often intensive, and students form bonds with other students in the class. The letters students receive from the previous class and write to the following class create connections across semesters. Sometimes students from prior classes serve as consultants to a group as a part of an Independent Study. This puts each student within a strong peer-support network devoted to problem solving rather than just pursuing a grade. Students’ attitudes towards their work bring them to discuss it with other professors and classes when it relates or when they see that other faculty have relevant areas of expertise. Research becomes, more than a set of terms and facts to be memorized, an activity which is relevant to the students’ lives. The chance to see themselves as a part of a community of scholars, to work on actual projects appreciated in the professional world, and the connection to possible career paths make the classes successful. The students go on to graduate at a high rate. Of the 15 students enrolled in the combined class in Fall 2010, all but one has graduated with a B.A. or a B.A./B.S., a graduation rate of 93 percent.

 FACING THE CHALLENGES OF TODAY

 The current environment of higher education is a profoundly unequal one, and institutions which serve large numbers of first-generation and low-income students have far fewer resources compared to institutions which serve higher income groups. When I was in college, my tuition was heavily subsidized in the form of scholarships, including an Illinois State Scholarship and a competitive scholarship awarded by my institution. By working full time during the summer,
are no longer supported. The program evaluation class I taught is presently on hold. We are exploring ways to bring it back in the future.

Every decade has its challenges. In this decade, we have the benefit of an increasingly diverse student population, which can enhance the contribution of higher education to communities. This increased diversity requires changes in normal practices for institutions accustomed to pedagogies that assume a homogeneous student population. Two challenges are the decreased public support for higher education (Mettler, 2014) and the increasing inequality in the education available to students, depending on family income and wealth. The financial strains risk decreasing the value of the education we provide. It will be important to observe and evaluate the long term consequences of these changes for student success.

REFERENCES


