

# Engaging Students in Community-Based Research

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A key feature of a good undergraduate psychology education is the opportunity to conduct an original research project. In fact, the number of undergraduate programs including research-based courses in their curriculum has grown in recent years (Perlman & McCann, 2005). However, it seems that students do not always see how the process of scientific inquiry in psychology is relevant to their lives. Furthermore, despite the fact that many teachers of psychology would like to believe that their students will go onto graduate school and continue to conduct scientific investigations of psychological phenomena, this does not always happen. Thus, it is important to make involvement in research meaningful for both students who are interested in theoretical investigations of psychological phenomena as well as for students who are not sold on the value of research. One type of research approach that can be appealing to both the inherently interested students as well as the skeptical students is research that is based within the broader community.

Community-based research provides a direct benefit for the members of the broader community while it also provides students with the opportunity to conduct scientifically sound research that has practical applications (Mettetal & Bryant 1996). Community-based research studies typically involve a systematic investigation of some phenomenon in the community (e.g., the prevalence of domestic violence in a community, Chapdelaine and Chapman, 1999; or an examination of educational practices in a school, Khanna, Scott, & Cortese, 2006). This scientific investigation of a community phenomenon allows the skeptical student to see how research has “real world” applications at the same time that it fulfills the more interested student’s desire to conduct theoretically-grounded research. Furthermore, for all students, community-based research brings the theories and phenomena that are covered in many content classes into a practical and tangible setting. Moreover, allowing students to participate in community-based research will provide them the opportunity to see that research can have immediate, direct, and long-term benefits.

## Deciding If Community-Based Research Is Right for Your Students

There are several points to consider before embarking on a community-based research project with your students. As with all types of research projects there are benefits and drawbacks for a particular method of inquiry. The benefits for the students are relatively clear. They will have the opportunity to conduct an investigation that is grounded in theory, but that has practical applications. Thus, they will garner all the benefits of conducting original research at the same time that they see the immediate relevance of the research. One key point, that some may consider a drawback to community-based research, is that it is important to design a community-based project that will have a direct benefit for the community, either at the level of benefiting the individuals who are involved as participants or at the level of the larger community (e.g., aiding in the collection of important community information about domestic violence, Chapdelaine & Chapman, 1999; gaining information about the appropriate reading strategy to teach children, Khanna et al., 2006).

Therefore one of the first questions that a researcher must ask him/herself is if there is a community benefit for this research. If at all possible, it is best to ensure that the participants themselves will receive a benefit for their involvement. Furthermore, this benefit should not necessarily come in the form of monetary compensation (although it may), but instead be some other type of benefit. For example, student researchers and I have conducted examinations of the types of reading programs that are currently used in local schools while investigating the prevalence of different reading-aloud strategies used by children (e.g., a sounding-out strategy vs. a rhyming analogy). In conducting these studies we included a period of time in which one or more of the investigators read with the children. With this activity included, the participating young readers received the benefit of reading with an expert reader, while we (the experimenters) investigated the relationship between reading instruction type and reading-aloud behavior. In conducting this community-based

project it was important to keep in mind that the community was a contributing member of the research team; they deserved to benefit from the project just as much as the student investigators and I did.

Before conducting a community based project with students, you should also question yourself about whether or not the students are ready to conduct this type of research. That is, you should ensure that your students are ready to work with members of the target community in a professional manner. If, for example, students will be working with young children in the community, make sure that they are appropriately trained (e.g., they have had supervised experiences working with children). Also, keep in mind that many community groups (e.g., schools, non-profit groups, etc) require a thorough background check be conducted before anyone can begin interacting with their community members. This may restrict some students from engaging in a specific community-based research project (believe it or not, some students may not clear that background check).

Even if students pass a background check and have had adequate experience working within a community similar to the target community, this does not mean they are necessarily ready to be involved in community-based research. This is an important point to keep in mind. Although instructors know that certain students are more professional than others, the members of the community might not. Thus, before students interact with community members in a research project, it is important to ensure that the students know how to conduct themselves in a professional manner. This professionalism ranges from knowing how to dress in an appropriate manner to knowing how to maintain the confidentiality of participating community members.

### **Selecting a Community-Based Project**

Sometimes the most daunting task in conducting research simply is selecting a question to explore and designing a research program that will accurately tackle this question. This same difficulty is found in selecting and designing a community-based research project. As stated above, you must ensure that the project will benefit the target community while still addressing the theoretical question at hand (Mettetal & Bryant, 1996). Sometimes the best way to achieve this is to solicit the help of your community members. For example, when my students and I embarked on the task of examining the efficacy of certain reading programs within local schools, we went directly to the members of the target school communities to ask them what kind of questions they

have about their reading programs. From these questions, we were able to shape a scientific investigation to address a subset of these questions. Through their inclusion in the design process, the community members seemed to feel more invested in the project and more interested in the subsequent results. Keeping this in mind, it is also important to design a research project that is feasible for students to complete, while still addressing issues of concern to the community. This is often constrained by the type of class for which the students are completing the project.

Undergraduate students engage in research projects via several different venues including research methods courses, independent studies, advanced content lab courses, and as honors or capstone projects (Perlman & McCann, 2005). Thus, it is important to design (or guide the design of) the project in a way that is feasible given the constraints of the course in which the students are conducting this community-based research. Often, students will be completing a research project as part of a one-semester course. If this is the case, it may be desirable to design a community-based project that can be completed in a relatively short amount of time. However, if this will severely infringe on the research questions of interest, you may want to consider designing a more extensive project and asking the students to continue their engagement in the research beyond the course or to hand the reins over to a new class of students in the subsequent semester(s). Of course, switching experimenters in the middle of a research project is something that should be done after careful consideration of the consequences on both the validity of the research project and the well-being of the community participants. In addition, the student researchers may leave the course without the benefit of seeing or producing the final product of the research product. The absence of a final product substantially cuts into the value of the research experience for the student experimenter (Kulik, 1973).

Another factor that should be considered during the design of the community-based project is the number of students that can act as experimenters and the amount of time that each student should be expected to dedicate to the research project. This, again, is often dictated by the type of class in which the students are enrolled. In a class with many students (e.g., 25 or more) it can be hard to design a project that requires that much manpower. On the other hand, in an independent study course, there may be only one or two students contributing to the project. Instructors should strive to achieve a fine balance in the design of the community-based project such that all of the students are equally engaged in

the project, while at the same time ensuring that the scope of the project is not overwhelming for a relatively small group of students.

Finally, when selecting and designing a community-based project it is also important to keep in mind the best interest of the student experimenters. For instance, students should not be put into situations in which they are very vulnerable to confidentiality breeches to themselves or to the community participants. In addition, it may not be appropriate for students to interact with certain members of the community (e.g., incarcerated individuals). Furthermore, a project that may seem very reasonable to the instructor and to most individuals in the course may not be appropriate for all members of a class. For example, the project conducted by Chapdelaine and Chapman (1999; in which students collected information from community members about the prevalence of domestic violence within the community) may not be appropriate for all student researchers. A student who has been the victim of domestic violence or who has a family-member or friend who has experienced domestic violence may feel very uncomfortable contributing to this type of project. Thus, it is essential that appropriate measures are taken to ensure that all students are comfortable with the project material. If a student is not comfortable with the engaging in the community-based project, an alternative assignment or experimental duty (e.g., a duty that does not involve the interaction with domestic violence victims) should be given to the student.

### **Obtaining Permission to Work with Community Groups**

Once the community-based project has been selected and designed, the research group must seek out approval to conduct this project. This approval must come not only from the university Institutional Review Board (IRB), but also from the community of interest. There is some ambiguity about whether or not research projects conducted within a course should be evaluated by an IRB before data collection begins. This ambiguity likely arises because, according to the Office for the Protection from Research Risks within the National Institutes of Health, only institutions which have federal research funds are required legally to evaluate research with human subjects via an IRB (Office for Protection from Research Risks, 1983/1989). Research conducted within an undergraduate course may not occur at an institution that has federally funded research (e.g., at small private colleges, Kalgren &

Tauber, 1996). In contrast, according to the U.S. Department of Health and Human Services, "...all research involving human subjects..." should be evaluated by an IRB regardless of whether or not it is conducted at an institution receiving federal grants (HHS Policy for the Protection of Human Research Subjects, 1991, sec. 46.101). Thus, it is my strong recommendation that any research project conducted with undergraduate student collaborators be evaluated and approved by a university IRB before any data is collected. Of course, the level of IRB review (e.g., exempt, expedited, full-board) will be determined by the mechanisms set-up by the individual universities. If you are new to the university IRB process, I recommend that you seek out the director of your IRB and consult with him/her about the community based project that you are planning for your students. He or she will be able to tell you what type of protocol and application to submit (e.g., exempt, expedited, or full-board). In addition, the IRB director will be able to tell you what type of community approval, if any, they will request of you before you are to commence your community based project. Whether or not you are required to submit community approval to the university IRB will largely depend on the community group of interest. If the community is composed of minors or other potentially vulnerable participants (e.g., prisoners), the university IRB will likely want approval from the community before granting their own approval.

Seeking out approval to conduct research within a targeted community presents unique challenges. This is largely because community groups vary greatly in the type of research review processes that they employ. These review processes can range from no oversight from a community-based review board to a full-scale review conducted by a community-based IRB. When the community of interest is not defined by any administrative group, but is instead characterized by common interests or characteristics (e.g., adult women with children in a specified metropolitan who are recruited for participation in a public setting), then the research group may simply get approval from each individual to consent to his/her own participation. On the other extreme, many community groups have a formal administrative body organized around the task of reviewing research projects. This is often the case with middle to large-sized school districts or other government institutions (e.g., departments of correction). When this is the case, the research group will likely need to submit a formal research proposal including the project protocol, participant consent forms for adult participants, parental permission forms, and/or minor participant assent forms among

other things. It is important to prepare these materials in a way that will be meaningful to the community members reviewing them. Thus, it is best to use lay terminology and to keep descriptions of protocol and procedure brief, but accurate. Unfortunately, the review process among community review boards often takes more time than in the university IRB. For example, several school districts with whom student collaborators and I have worked have requested that we submit our research materials for their IRB to review at least one full semester before the desired start date. Thus, conducting a community-based research project often requires substantial and early planning.

I should also note that community-based research review boards can be skeptical of research and may not allow many, if any, researchers from outside of their community to conduct research with their community members. This can especially be the case with school districts and other government agencies. Furthermore, many community groups are bombarded with research requests and simply cannot accommodate all of them. Thus, it is imperative for researchers to plan ahead and to be aware that working with community groups is a privilege that they may not be granted. However, there are things the research group can do to increase their chances of their research program being approved by the community. As I stated before, a community-based research project should be designed such that it will directly benefit participants. From my experience, projects that include benefits for participants are more likely to be approved by the community research review board. These benefits could be monetary compensation; however, some community groups (e.g., school districts) will not want their community members to receive money or gifts in exchange for their participation. Instead, many community groups would prefer that participants are compensated with some sort of service or an educational benefit. For example, in the reading projects that my students and I conduct, participants experience the direct benefit of learning new strategies for reading.

Another way to increase the likelihood that a research project will receive community approval is to consult with members of the target community (e.g., teachers) about the type of research projects in which they may be interested. In doing this, you are designing a study that is not only of scientific interest to you and your students, but one that is of interest to the community. In addition, in brainstorming research ideas with members of the community, you will develop relationships and alliances with community members who may have the opportunity to be your advocates during the research review

process. However, your goal should be for the research proposal to sell itself by clearly describing how the community will benefit from the completion of this project.

### **Data Collection and Interacting with the Community**

When the time comes to commence with the project, there are several ways in which a community-based project will differ from a typical student-run research project. First, most community members will not be experienced research participants, unlike many undergraduate students. This inexperience makes the consent/assent process all the more important. The student experimenters must be very careful and thorough in explaining the procedures of the study, the time commitment expected from the participants, and that community members can end their participation at anytime. Most of all, experimenters should pay close attention to ensure that participants understand that they will be participating in a research project. This may mean that the experimenters ethically are not permitted to talk with the participant about his/her responses/results. From our projects on reading education, my students and I know that it is very difficult for many parents, teachers, and principals to understand that we cannot share the responses that individual children make during our studies. Thus, we found that it is so important to stress to the participants and their parents the nature of the study and the type of results that we will be able to communicate to them at the completion of the study. For example, my student experimenters and I tell the parents that although we will be measuring their child's reading ability, we will not be able to share their child's specific scores. However, we also indicate that we will be able to share information about the reading ability of the study participants, as a whole. Thoroughly explaining these aspects of the research project may mean that some community members will not participate. Nonetheless, this is much better than misleading the participants (or their parents) about what the study is designed to do and the type of results you will be able to communicate to them.

In designing consent and assent documents it is also very important to keep in mind the audience. Thus, a good rule of thumb is to design consent documents that are at a 4<sup>th</sup> grade reading level, or in very plain language. This is not to say that it should be assumed that the target community is not well-educated. However, it is almost certain that the community-members will not be familiar with an

idiosyncratic area of psychological research. Using simple language will make it much more likely for the community member to understand the document that he/she is reviewing. Furthermore, it is important to include a consent document that is written in the home language of the community members. I have found that it is most effective to distribute consent/assent written in the home language of the participants and as well as ones written in English. Again, the most important point is that you want all of your participants to understand the nature of the research in which they are asked to engage. To this end, it also may be useful to make a verbal presentation about your project to your target community members before they consent to participating. It often is quite comforting for a community member to see the face of the person who is asking them to participate in the research project. Because of this, it is useful to have the student experimenters present and engaging the community members during these verbal presentations.

During the data collection phase of a community-based project it is also important to stress to student experimenters that they must always treat community participants with dignity and protect their confidentiality. This is especially the case when the student experimenters are also part of the community from which the participants are drawn (e.g., both the experimenters and participants reside in the same town). If the data to be collected is of a highly sensitive nature, the instructor may want to include only communities that are distinct (e.g., located in a different town) from the student experimenters' community. Whatever the target community may be, it is always imperative that the student experimenters know that it is inappropriate to talk about the participants with whom they are working, outside of the experiment setting. Furthermore, it often is unethical for the student experimenters to interact with community participants outside of the experiment setting.

### **Communicating the Results of a Community-Based Project**

As with any research project, it is essential to disseminate the results of your community-based research project. The traditional scientific venues (e.g., peer-reviewed journals, national, regional, or student conferences) are appropriate. However, the results should also be disseminated to members of the community. Sharing the results with the community shows the respect and appreciation that you have for their participation. In addition, for many community members, this will be the only research in which they

have ever participated; they will want to know the results. I have found that this is especially the case for parents of young participants. Thus, it is important to keep in mind the type of results that you present to them (e.g., you will be able to tell them how the participants did, as a whole, but you likely will not be able to tell them how each child performed).

There are several different ways to present results to community members; they can be presented as a written report, a verbal presentation, or as some combination of both. I prefer making a verbal presentation to community members. This is because a verbal presentation will allow me or the student experimenters to answer questions that community members have or to expand on any points that are unclear. However, I have also found that a written report can be useful and appreciated by community members. No matter the mode of presenting the results, there are a few points to keep in mind. First, make sure that the results presented are meaningful to the audience. Your students may have conducted a study that helps differentiate two theoretical models of behavior. But, will this theoretical distinction seem important to the community members? It likely will not, but hearing about the general findings of your students' experiment may be really interesting. For example, I have found that parents, teachers, and principals do not want to know how the reading strategies that their children use helps to identify the appropriate theoretical model of word recognition (e.g., the Parallel-Distributed-Processing Model; Plaut, McClelland, Seidenberg, & Patterson, 1996). On the other hand, they do want to know that their children are more likely to use a phonics-based strategy than a word-rhyming strategy when pronouncing new words. While it is very important to describe your results in a way that is digestible and interesting to your audience of community-members, it is still important that it is not overly simplified. In line with this, it is important to make your professional contact information or that of your students, available to community members in the event that they have additional questions about the study or the results.

Finally, the process of disseminating the results of the study to community members should be viewed as an opportunity to highlight the abilities of the student experimenters. Thus, if possible, have the students present the findings to the community members. You want your community to know that your university/college is a substantial community asset and that your students are not only learning how to conduct sound research, but are able to present articulately the results of their work.

## Is it Worth All of the Extra Work?

Conducting a community-based research project with your student experimenters requires, undoubtedly, a substantial time commitment. There are many extra steps involved in the processes of preparing the study, conducting the study, and disseminating the results as compared to a lab-based project. However, the benefits are numerous. Students feel more invested in the project, the community benefits, you have the opportunity to show your community what your university's students can do, and students can see the fruits of their labor, first hand. Thus, higher costs of time and effort involved in a community-based research project are far outweighed by the benefits.

### References

- Chapdelain, A., & Chapman, B. (1999). Using community-based research projects to teach research methods. *Teaching of Psychology, 26*, 101-105.
- Department of Health and Human Services Policy for the Protection of Human Research Subjects, sec. 46.101 (1991).
- Kallgren, C. A., & Tauber, R. T. (1996). Undergraduate research and the institutional review board: A mismatch or a happy marriage? *Teaching of Psychology, 23*, 20-25.
- Khanna, M. M., Scott, K. N., & Cortese, M. J. (2006). Hough dou yu gno wat tou sai? *Abstracts of the 1<sup>st</sup> Annual Workshop on On-Line Methods in Children's Language Processing*.
- Kulik, J. A. (1973). *Undergraduate education in psychology*. Washington, DC: American Psychological Association.
- Mettetal, G., & Bryant, D. (1996). Service learning research projects: Empowerment in students, faculty, and communities. *College Teaching, 44*, 24-28.
- Office for the Protection from Research Risks. (1989). *OPRR reports: Protection of human subjects. Code of federal regulations, public welfare (Title 45), protection of human subjects (Part 46)*. Washington, DC: U.S. National Institutes of Health. (Original work published 1983).
- Perlman, B., & McCann, L. I. (2005). Undergraduate research experiences in psychology: A national study of courses and curricula. *Teaching of Psychology, 32*, 5-14.
- Plaut, D. C., McClelland, J. L., Seidenberg, M. S., and Patterson, K. (1996). Understanding normal and impaired word reading: Computational principles in quasi-regular domains. *Psychological Review, 103*, 56-115.