

1. Briefly summarize your research problem (include any hypotheses) and the goals of your research.

How can the Hispanic community realize better representation in forestry and natural resource related professions? This was the overarching problem driving this research and essentially the Latinos in Forestry Program. My community partner had realized the challenge of increasing the number of Hispanic students within the college of forestry. When I first met with him in 2005, he expressed an interest in working with middle school students as well as high school students, with the insight that working with students earlier in their academic path might yield greater long term recruitment impacts. We wanted to find out from the community what the Latino community perceived as barriers to entering forest related professions. We had hypothesized that lack of education and/or awareness would be main factors, which they proved to be.

Our goal was to begin working with Latino middle school students in a way that would increase their awareness and interest in forestry. A participatory research model was ideal because of its inherent ability to engage participants directly, which we felt would have to greatest potential impact on students. A goal of mine was to give Latino students an extracurricular opportunity to develop their inquiry/science skills through social science research in their community. As we began our participatory research process, the students and I arrived at the following question that would guide our research in the Hispanic community: What do Latinos think about the forest and related work?

2. Describe your field work experience and data collection experience. Include a discussion of how your participatory research worked out.

With some guidance from me as the research facilitator, most of the research process was carried out through the student researchers as program participants.

I had approximately eight weeks to meet with students to conduct this research. We met one to two times per week for two to three hours at a time. This wasn't a lot of time given the potential scope of our project, so for the first couple of meetings, I typed up guided conversation that I could use to elicit student input and generate dialog. There was some basic background information about the research process in social sciences that I felt was valuable to share with students before they were to embark on research themselves. I saved this conversation template on my computer and brought my laptop to meet with the students (two groups). After introductions I explained to them that I was there to listen to their ideas and to help them put their ideas into action; when they shared their ideas I would type them into the computer. The following meeting I would print out the conversation and give a copy to each of the students. Each week I followed this procedure, taking down their input, word processing it, and returning it to them. I felt this would mark the group's progress while giving them a sense of accomplishment, something which seemed important for group motivation and facilitation purposes early on.

In addition to generating ideas for community research, the students were also responsible for coming up with most of the questions used on the questionnaire. After discussing the main question, I prompted the participant researchers to ask questions that would give us an idea about what Latinos think about the forest. I shared some pointers from a one page document I found on the Internet, which listed examples of what makes a good interview question so they would have some criteria to work with. I worked with one group at a time and was able to let the second group of students evaluate and add to the list of questions generated by the first group. After polishing up a questionnaire over the course of about three meetings with each group, the questionnaire was translated into Spanish and submitted to the Oregon State University (OSU) IRB. Meanwhile, I worked with the students on interview techniques and concepts related to data analysis. We practiced interviewing one another in both Spanish and English. This was a lot of fun for the students and they took their role-playing very

seriously. By this point I had provided color name badges for the students with an OSU logo on it. The badges said “Participant Researcher” at the top, the students name in the middle, and “Community Forestry Research Program” at the bottom. I also provided students with clipboards and impressive mechanical pencils in their favorite colors. These details seemed to make a big difference to the students.

Once we had practiced for two meetings the students felt ready to practice interviewing others in their community. The IRB had approved both the English and Spanish questionnaires by this time and the students would now get a chance to try out their interviewing skills with adults. Their first opportunity to interview was at the 3rd annual 4-H Latino Olympic Summer Camp. I offered each participant a \$50 scholarship to the camp and had asked the camp director if Marion County could set aside matching scholarships for each of these students to cover the total costs of the camp. Only four of the original participants could go to the camp, but the message behind the reward for all participants was one of academic scholarship¹. I felt that even though these students were still a bit young to be thinking seriously about college scholarships, to become familiar with the experience of being awarded a scholarship might stay with them as they consider applying for scholarships in the future. Instead of feeling like scholarships are for other people, they would know that scholarships are also for them if they apply themselves, are involved with their community, and follow through with their commitments.

The student researchers were responsible for collecting ALL data and after a few meetings worth of practice, they were ready. Their interviews at the summer camp went well and it was a supportive environment. The following week I joined the students as they interviewed people in their neighborhood, family, and friends. The next week José and I drove the students to Woodburn

¹ During the first few weeks of the program I sent a letter to parents with an update of our progress as well as information about the camp and the scholarship that had been awarded their child to attend.

to conduct interviews at Nuevo Amanecer (*New Dawn*), an affordable housing community for migrant workers and their families. The students, (there were seven at this point) split up into two groups upon my suggestion: four girls and three boys. I went with the girls and José, my community partner, went with the boys. Despite their practice with family, friends, and neighbors, the students were obviously still anxious about interviewing complete strangers in a different town. I felt breaking them up into smaller same gender groups would ease some of this anxiety. We knocked on our first couple of doors, but the girls still seemed anxious, so I volunteered to do the first interview. This seemed to help.

The students had conducted a total of 52 interviews with Latinos of different ages and from different walks of life. We had tentative plans to bring the students to Oregon State University the following week to interview Latinos there, but realized that at the end of summer there were few people on campus, let alone Latinos. Instead we took the students on a field trip to Portland's World Forestry Center museum as a reward. They had done a great job and I wanted them to feel fully motivated when it came time for data analysis.

Once the students had completed their interviews, they were then responsible for organizing their data in Excel and presenting their findings to members of the community. Before going into the field for interviews, we had practiced using Excel in the 'classroom'² with my laptop computer. The students practiced entering data into spreadsheets and thought of how they would organize their data in a way that made the most sense. This became an iterative process and on a couple of occasions the students found they needed to further modify the questionnaire in a way that would facilitate data entry. The students also practiced making graphs from data. Some of the questions on the

² I met with the Grant Community School group once per week for about three hours during the morning in a covered outdoor picnic shelter adjoined to the school playground. We had originally planned to meet indoors using a teacher's classroom, but I was informed at the last minute that the school would be closed for most of the summer for undisclosed reasons. I met with the Colonia Libertad group twice per week for about two hours each time. I had originally proposed a longer meeting, but the community organizer suggested that if I wanted students to show up and not suffer boredom, I should limit the meeting time to two hours and provide pizza. We met in the center's computer lab during the afternoon.

questionnaire were open ended and I knew we would need to try to code for the responses, so we also practiced the process of coding and categorizing using the data from their practice interviews. Once they had their real data to work with, my main task was to facilitate data entry and analysis through graphical displays. Each student was responsible for entering data for at least one or two questions. Once they had entered the data we worked on making charts and graphs, with each student making a chart or graph for the question they had been working on. Then we began a template for the PowerPoint presentation.

The students were really becoming engaged in their work at this point. We talked about how to integrate photos into a slide and I suggested that they use the Internet to search for photos to decorate their slides with. The students at Colonia Libertad in particular were very selective about which photos they would use, at first spending up to twenty minutes as a group searching for a photo that would suit a particular slide. In the end their hard work and attention to detail paid off. They presented their slides to friends and family as one whole group³ with two people per slide. A regret I have is that we didn't spend much time preparing for the presentation or analysis of the findings. I had assumed that the students understood how to interpret percentages as compared to absolute numbers, but this was only really true when they were working with their own slides. When it came time to present, they were sometimes presenting a slide that a member from the other group had worked on and found they were unprepared to explain the results. In retrospect I should have scheduled one more meeting with the students before the presentation where we focused solely on presenting the results. We also could have used more time for analysis of the results, which is something I had originally hoped to spend more time on with the students. In terms of analysis, we had only scratched the surface.

³ There were only six students at this point because one more had moved away. However, one student who had lapsed from the program now wanted to participate in the presentation. To be fair to the other students, I suggested that he be in charge of forwarding the slides. He seemed somewhat resigned to this role, but he had not collected or entered any data, so it seemed only fair.

3. How do your preliminary findings and analysis relate to your original goals or hypotheses?

Our preliminary findings suggest Latinos have very positive attitudes towards the forest and believe that Latinos are largely absent from professional positions in forestry due to unawareness and/or lack of opportunities and education. These findings cast some light on the overarching question of how Latino's can achieve better representation in forestry professions because they suggest avenues for outreach, such as education and awareness programs.

4. What is the benefit of your research to the community?

While some benefits to the community have been apparent immediately, other benefits of this research have yet to unfold. Immediate benefits were largely social in nature and were realized by the students as well as the community partner. The students enjoyed having a group of which to be part, a team to work with during the summer while they were not in school. Although the students at Colonia Libertad expressed doubt originally about their abilities to conduct research, they soon found commitment as a group to do what needed to be done to complete the research process. The Grant Community School students seemed to really enjoy the challenge and the analytical thinking required. Meanwhile, the Colonia Libertad students seemed to enjoy taking on roles that let their abilities shine, such as acting as a group leader/motivator or interviewing people.

My community partner developed a number of community contacts through our efforts. Most of these new contacts were in Woodburn, although some were in Independence and Salem as well. Even in cases where we were not able to recruit any students for the summer program, we were at least able to establish

contacts with the community. José was also able to contribute to the questionnaire⁴, which provided him with data to support his intuitive beliefs about why Latinos are not found frequently in professional forestry positions while gaining a sense for how Mexican American Latinos relate to the forest.

In response to the call for education opportunities in the forest, I wrote a proposal for funding. During the 2006-2007 school year my community partner and I received funding to conduct an 8 month, bilingual (Spanish and English) Forest Field Program⁵. We hired a Mexican American undergraduate engineering student from OSU's College of Forestry to assist us as we led a total of 12 field trips to local forests.

5. Describe some of the lessons you've learned along the way.

After we had completed our participatory research efforts, I spoke with the core students either on the phone or in person about their perceptions of the program. I asked a few simple evaluation type questions. The following points are a summary of the students' responses to those questions.

Favorite aspects of the program:

- Interviews/field trips
- Being with friends
- Meeting new people
- Learning new things
- Summer camp
- Making graphs on the computer
- Food
- Presentation

⁴ Mr. Diéguez contributed question #4 to the questionnaire.

⁵ The program was student centered, inquiry-based, and included a vocational awareness component. Ten students completed the program, which began in September of 2006 and ended in June of 2007.

Aspects of the program that could be improved:

- Not enough participants
- Meet twice per week instead of once (Grant group)
- Meet with other group more often
- Meet indoors (Grant group)

One thing they learned:

- What Latinos think about the forest
- How one question could get many different answers and how to write good questions for questionnaires
- How to improve interviewing skills

In addition to these lessons from the student researchers and lessons described earlier in this report, I would like to emphasize a point in closing that summarizes what I feel is the most significant lesson I have learned through this participatory research process: *Choice is a powerful thing; giving people the opportunity to make thoughtful choices is an empowering thing.* As a facilitator, I was to present the student researchers with a challenge but I never wanted them to feel like they were in over their heads (at least not for more than a moment.) It was also important for them to feel that although what they were doing was new and different, they had enough life experience and intelligence as a team to work through the challenging aspects of the program. This meant I needed to ask them questions that would encourage them to arrive at their own answers and help them stay on course. This wasn't always easy and sometimes it was tempting to just give away an answer, especially if a meeting was running out of time. Sometimes if the students were stuck it was appropriate to either rephrase my question or provide them with an example that I thought would get them moving forward again. This was appropriate, but giving away answers took away their choice in the sense that every idea is a choice of consciousness, a pathway of thought. As I considered this participatory research as a form of pedagogy, the focus was not on what students knew in terms of factual

knowledge; the focus was not on an abstract thing they needed to produce or a specific outcome; the focus was on the process they *experienced*. Empowering the students to make choices and arrive at answers was enabling them to experience an inquiry process.

One role of the facilitator was to provide suggestions and sometimes even answers when asked. An even more important role of the facilitator was to ask the kinds of questions that would guide the participatory research team in a working direction. When the facilitator has been successful in doing this, it can be empowering for both the participatory researchers and the research facilitator. Finally, after spending a year working with different students within this community, both during and after this original participatory research program, it has become clear that students who stay in such a program don't want to get lost in the shuffle. Although they seemed to have fun in larger groups, they responded well to the kind of quality attention from the facilitator(s) that comes from working within a small group of about ten or less and were more easily engaged in working towards their goals.