

From Desks to a Quest: Understanding the Process of Teacher Research

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I conducted my first teacher research study in the spring of 2000 as a requirement for a class I was taking at Arizona State University. Throughout the semester I learned that teacher research is a welcoming way for us teachers to ask questions about our students, our practices, and our materials. It provides a way for us to figure things out for ourselves, rather than depending on outsiders to tell us what we "should" or "shouldn't" be doing. I also found out that I like working on my practice and profession and getting to know my students on a more personal level. And I like being in control of my own research, rather than the object of someone else's where I am being watched and examined. The only problem I now face with teacher research is time. I sometimes feel overwhelmed by trying to incorporate systematic ways of looking at the way I teach without feeling like I am adding something on top of what I am already required to teach. But, I know it can be done; I know I want to do it. I just need to adjust the methods to my needs.

This one teacher research study has profoundly changed what I think about teaching. Teaching for me, has become a quest: a never-ending pursuit for those things that matter most to my students and me as we work together in my classes. This essay is my story of how I went from seeking the answer to a rather simple question about my teaching practice to pursuing teaching as a quest. It is a story that shows both the struggles and the rewards of a first time teacher researcher.

The Story Begins

Once upon a time, when life was easy and grand, this eager teacher researcher decided to find out if her new desk arrangement was promoting better learning in her Spanish 1 class. Little did she know that this question was much more complex than she originally thought.

I am a high school teacher. I teach Spanish at Gilbert High School in Gilbert, Arizona, (a suburb of Phoenix), with a student population of approximately 3000. At the time I wrote this paper, I was in the middle of my second year of teaching Spanish 1 and 2. Our Modern Languages Department is large, with twelve teachers total, seven of whom teach different levels of Spanish. I am very fortunate to be a part of this department because all of us teachers are always willing to try new techniques and ideas and they constantly challenge one another. My new ideas are also embraced and new methods of instruction are always discussed among us. Therefore, when I decided to focus my teacher research question on investigating whether a new seating arrangement would promote better learning for my Spanish 1 students, I was very comfortable doing so knowing I would have the support of my colleagues.

As I sit here and re-read my research paper from last semester, I think of how simple I thought this whole process was going to be! I really did not believe it would get as involved as it did. But, little by little, throughout the semester things began to change. I went from thinking things would be easy to questioning everything, and perhaps annoying my classmates in my "Teachers as Researchers" class, when I kept asking, "WHY?" I was so confused. I did not feel like I could start researching. It took me many weeks to begin collecting data. Even when I started collecting data I didn't know what I was going to do with what was collected. I believe I truly came to understand what Power and Hubbard were saying in their book, "Living the Question", when they wrote, "...you can't predict the path of your research before you start collecting it." Since I couldn't figure out where things were going, I just kept on collecting and reflecting and analyzing my data and surprising things began to develop.

In the Beginning

Prior to my study, I had two "L" shaped rows of desks in my classroom facing the front board, because I wanted to have an arrangement different from the typical rows and columns. Even though the "L" shaped rows were different, I still didn't like this arrangement because when I gave students the option to work in groups they wouldn't talk. In addition, this arrangement made it physically difficult to move students into groups. I would have students count off by four or five and ask them to move their desks into groups, or find a place on the floor where they could meet. Half the time when they moved their desks, you couldn't tell which desk belonged with which group. I spent my time reminding them that they were a group and they were to be working on a group assignment. This was not a good use of our time. This arrangement was not working!

At one point during the first semester, I mentioned to one of my classes that I was thinking about changing the desk arrangement in our room. They were very excited about this possibility and persistently asked me when this change would occur. Finally, after winter break I decided it was time to move the desks in our classroom. I wanted to see if arranging desks into cooperative learning groups would help students work more effectively and efficiently and improve their work in our Spanish I class.

One day after school, I rearranged the desks in several different ways. I struggled with the best arrangement. While I wanted the students in groups, my main concern was that every student could easily see the front of the room because I use the overhead for some of my lessons and the students need to easily see the front board without strain. I originally wanted four people in each pod; however, I have the type of desks in my room which have the chairs attached to them. This made it difficult to arrange them in a comfortable four-desk pod where each student could easily see the front of the room and still have access to their seat. Therefore, I settled for the "tripods" I now have in my room. I arranged the desks the best I could so no group would feel isolated, and every student would be able to easily see the board. I also put tape down on the floor to show where each desk was supposed to be located so my strategic desk placements would not be disturbed. Much to my dismay, the next morning, upon entering my classroom, all the masking tape pieces were removed from the floor. I later found out that the janitors did not appreciate this because the tape gets caught in their vacuum cleaners. Oh well!

Adjustments

When the students came into the classroom the next day they were excited to see the new desk arrangement. They asked, "Can we sit with who we want?", "Are you going to put us into assigned groups?", etc. The first day I let students choose where and with whom to sit. This turned out to be one of the most difficult days of my teaching career!! There was so much off-task talking. Students were talking while I was talking and while other students were trying to contribute information to the lesson. No one was quiet! I said to myself, "I'VE HAD IT!" after just one day! I was frustrated with the whole study, but I decided to give the arrangement one more day. The next day I also assigned students to particular groups. There was still a great deal of off task talking. I was frustrated, but not as much as the day before. The next day there was still too much "off task" talking, so I set some ground rules. I began by explaining why I thought groups were good for the class. I told my students that I thought groups would allow them to ask one another questions, work on homework together, and to have people close by to get make-up work from easily. I also reminded them that they needed to be courteous to the person who was speaking. I took a poll by having students raise their hands to see if they liked this new arrangement, and almost every student raised their hand. Therefore, I told them that if they liked it as much as they said they would also need to remember the basic rules of respecting other students' right to learn and the teacher's right to teach. If this didn't occur then I would be forced to change the seats back to the way they were. After this warning there were no major problems or frustrations related to the groupings.

Beginning the Research

I was very overwhelmed by the procedures involved in beginning my research. I had no idea where to begin. After waiting several weeks, I started my research by observing the students. I felt observing would be the easiest, most non-threatening, way to jump into collecting data. I didn't observe my students every day, but I observed them at least once a week. It was a difficult task because I started by observing the entire class. I was not able to take good notes because I was looking around at too many groups. When I first started observing the students they had been assigned a worksheet and asked to work on it in their groups. During this first observation, the class was very quiet. Once in a while I heard students asking one another simple questions if they came across something that was difficult, but once they received the answers they continued working on their own. I wanted to know how I could improve the quality of their interactions. I began to "live my question", as Hubbard and Power would say.

I wondered if assigning roles or jobs to students in each group would increase the interactions in the groups. So, before I began my next observation, I gave each student in each group a number (1,2,3). In this case I assigned the number "2's" the responsibility of being the recorder and the numbers 1 and 3 had to give input on how to figure out the answer to each question. I found much more discussion among the students and I sensed that there was a higher order of questioning occurring within each group. The students were sharing their thoughts and ideas of how they thought each question should be answered.

Even though I witnessed many more interactions in the groups, I was still having a difficult time observing the class and recording the students' language because I thought I needed to observe

the entire class to get the data I was looking for. I felt like I was running in circles and only able to gather half of all that was occurring. I didn't feel I was doing my observations justice. Therefore, I developed an observation sheet in the form of a spreadsheet to help me take notes more quickly and easily. This helped, but I felt like I could develop a better form.

My next attempt at observing was much more successful. I still used my spreadsheets, but I enlarged the writing spaces so I could record more information. I also discussed my problems in observing with my teacher research group. Based on their suggestions, I decided to narrow the scope of my observations from the entire class to focusing on one group. I don't know why I didn't think of this on my own! My classmates helped me to realize the importance of being a member of a community of teacher researchers, and how much bouncing ideas off of one another can help each of us develop our research even further. In the end, I took their suggestions and observed just one group of students. It was a group of three girls. I had noticed this particular group of girls and how well they work together; I thought they worked together wonderfully. I was a bit concerned about observing just girls but I thought I would concentrate on getting the male perspective through surveys and interviews. I also did not tell the group I was going to be observing them because I wanted to get their naturally occurring actions and language down on paper. I felt the only way this could be done was by not letting the girls know that I was observing them.

The first time I observed these girls I was able to gather the information I was looking for! I noticed each girl in the group contributed something different to the group. Susan wrote the information down, Lisa kept the group on track by reminding the other two students what they had to do next, and Jamie checked the information being given by the other two group members. These were not necessarily jobs assigned for each girl. I was very interested in how the girls decided on who would do which task. Each task seemed to be representative of each girl's personality. This made me wonder if perhaps research on the social aspects of group or cooperative learning would be something I could look into.

By revising my spreadsheet to make my writing spaces larger, and by concentrating on observing one small group of students instead of the entire class, I found I was able to take more accurate notes during my observations. My next challenge was to learn how to capture as much information as possible during my observations. I read and reread the chapter "What Likes What?: Data Analysis," from our assigned readings. As a result, I devised codes I could use to take notes during my observations, for example, I used PGQ to note when the student "posed group question", and PTQ when they "posed teacher question".

I thought I had collected a lot of data before! This was only the beginning. Coding students' actions and behaviors made it much easier for me to record their interactions, so I continued to use this method. The codes allowed me to see what sort of interactions were occurring in the group, what was being discussed, and how particular concepts were being understood.

More Research: A Focus on Data Collection Processes

One of the requirements for the teacher research class was to have us (the students) try out different data collection methods. Because of the nature of my inquiry so far, and based on some

of my emerging questions, I wanted to know more about the students' perceptions of each other as working partners. I then created a sociogram (Hubbard and Power, 1999), after asking the following questions, "If you were given a major assignment in this class, who would you want to work with and who wouldn't you want to work with?" The students wrote their responses out on a small piece of paper and were asked not to discuss this with anyone. I was a bit nervous about doing this in class because I didn't want any student to feel isolated. When I gave the class this question one student said, "That's a mean question!" I explained that this was for my research, and I didn't want anyone to share this information with other students so they would not hurt anyone's feelings. After I explained this I really believe the students were at ease with my question. I felt that sharing what my research was about and clueing the students in on what I was trying to accomplish made them act maturely. I believe the sociogram was a success due to their respect and understanding of my research.

At this point I realized how much this honesty paid off. The class that I was researching was my largest Spanish I class and sometimes a large class can be a disciplinary problem. Now I believe that sharing with my students exactly what I was doing in class and with my research project made them feel a part of what was going on in our class. They felt like they had a voice because I constantly asked them what they thought about different aspects of my research.

Through the use of a sociogram I learned the social make-up of my class. Many students picked the same two students who were "A" students all year long, to work with on a major project. I also had one student no one else wanted to work with. I learned who wanted to be with each other and this information influenced my decision to change a couple of groups. I did this because I wanted to see if students worked better when they picked their own groups. I found that some students could handle working with their friends and others could not. This made me wonder if a student's maturity level is a factor in letting them create their own groups. Another question to consider for my next project!

As I worked through what I learned about who the students wanted to work with, I was also thinking about what we might do to include the one student with whom none of the other students wanted to work. I began to wonder if there was some way I could get the students to willingly work with him. I was tempted to ask the students this question, "How do you think you could help include the student you did not want to work with?" After much consideration I decided not to pose this question because I did not want to take the chance of having the other students say something that would make them expose this student. I felt that finding the answer to this question would disturb the environment in this class, which had great chemistry and was a hard working class. Plus, I didn't see that asking this question would aid my research.

I proceeded by conducting a student survey so I could get students' ideas about my research question and some specific insights into their perspectives on what I was doing (MacLean and Mohr, 1999). Coding the information the students gave me was made easier for me because I asked for explanations on most of my questions. Again, I developed a spreadsheet where I could record the students' responses. This was an easy way for me to quickly reference all the responses and to see where improvements needed to be made.

I was pleased with what the students wrote because I felt I got to know them as individuals. I was impressed with their suggestions for improving the new arrangements, as well. One of their main concerns was that some of the groups felt very cramped and too close together. I rearranged the desks as much as I could to leave more room for the students. Another suggestion I responded to was changing students' seats so everyone could easily see the front board. I didn't move the students into new groups, because I liked the relationships that had formed in most of them. However, I did have the students rotate in a clock-wise manner once a week so one student would not remain in the harder-to-see seat for a long period of time. The students really liked this because it felt like the seating arrangement was changing a bit. As a matter of fact, they always reminded me when it was time to change. All in all, this survey helped me to improve the seating in the classroom and the students truly felt their concerns were being heard.

Next, I conducted tape-recorded interviews with the selected students about those responses from their surveys that I did not understand. In total, I interviewed seven students, five boys and two girls. Again, I was not trying to interview more boys than girls. It just happened that way because I let my curiosities guide me through my inquiries.

I LOVED doing the interviews! The students were very open and honest. I appreciated that and let them know. One of the responses I enjoyed hearing was the responsibility a couple of the boys took for their grades, which had gotten increasingly low since we had moved into groups. I was expecting them to say that their grades were lower now because the groups distracted them easily with the temptation to talk. Much to my surprise this was not the case. Each student had other reasons for their decline. I did notice, though, that as a result of these interviews the students' grades began to improve shortly thereafter. Another student said he started studying differently because of the group work and that was the reason for the improvement in his grade. There were two quiet students I interviewed who felt their grades had improved because of the grouping in class. I was especially excited to hear this because I always felt they were capable of much more than what I was seeing. One girl told me, "I have people around me to help me to help me understand. In case you are helping someone else in class I can ask my group questions right away." The quiet boy said, "I feel more comfortable asking my group questions rather than asking my question in front of class." The responses of these two students resonate with what I had read in the California Department of Education web site that, "...cooperative learning provides students the opportunities to model the language, produce quick feedback, and comprehend what is going on in class." This made me feel great because I felt I had helped two very good students work up to their potential while meeting their needs for more one-on-one work.

Thinking about these students makes me feel like I really did a great deal to help them along in my class. This was one of those moments that made me glad to be a teacher. Not only did these students' grades improve but they seemed to participate, in their own way, more in class. They also started asking me questions and offering information to the class more often than they had before.

One Journey Ends and Another Begins

There was no doubt in my mind that I had learned a great deal about desk arrangement and grouping students during this teacher research study. For example, when I first placed the students into groups, I gave each group an assignment to work on, yet each group member worked on it individually, not with the group. I now realized that just simply placing students into groups is not enough to promote cooperative learning. Even though I had changed the geography of the room, it was not enough to affect the quality of the groups' work. Therefore, my questions now turned from a focus on how to arrange desks and group students to specific questions about cooperative learning and to those aspects of cooperative learning that I was not yet incorporating into my class. Johnson, Johnson, and Holubec's book, *Cooperative Learning in the Classroom*, reminded me of the importance of assigning tasks to each student so that there is both group and individual accountability. So, of course, my new question is: "What would happen if I assigned tasks for each student in a group and tailored my lessons to make them a cooperative effort?" And so the teacher research cycle begins again.

All in all I have learned a great deal by becoming a teacher researcher. I set out by trying to answer the question, "Does grouping students help them learn Spanish better?" but by the end of my study I discovered much more about my students, my practice, and myself.

I was able to speak to some of my students one-to-one about their study habits and learning styles, who they wanted to work with, etc. I also talked with them about their needs as students in our Spanish class. I found this process of using students as informants about our class and how it works to be a unique experience. Like many teachers, I had not always talked with my students about what they do to prepare for class and how they like the classroom environment. I found myself becoming much more respectful of my students' needs as well as my own. The students were very mature and up front with me about their needs and what they thought about my questions and requests. I found my students were very insightful and thoughtful.

In the end, I feel I have learned a great deal more than the answer to my research question. I believe that by becoming a teacher researcher I have rediscovered my desire to teach and my quest for improving how I teach. When I think about the path I took to become a teacher researcher I am no longer scared of being a teacher who conducts research. I kept wondering how my research was going to take shape but, by applying the methods I was learning in my "Teacher as Researcher" class, to my project, I began to see a picture develop. I had to trust that what I was doing was going to point me in my next direction. Now I know that simply starting with a question is all the information one needs to embark on an incredible journey of teacher discovery and research. Already I find myself wondering about what intriguing, important questions I will "live" next year as my students and I learn and grow together.

References

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