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The Curtain Rises: Teachers Unveil Their Processes of Transformation in Doing Classroom Inquiry

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The Curtain Rises: Teachers Unveil Their Processes of Transformation in Doing Classroom Inquiry

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Abstract

This paper is the joint reflection of a group of teachers on their transformative process of engaging in a systematic inquiry in their own classrooms. While sharing and reconstructing their experiences, they found that most of them went from detachment and resistance, when they were introduced to the idea of teacher-research, to engagement in a community of inquirers, and to uncovering the unforeseen benefits of doing teacher-inquiry.

Background

Our reflective group is composed of educators who are teaching at different grade levels: elementary (Lori, Denise, Maria), middle school (Vicki), high school (Jacquelyn) and university (Myriam); regular and special education, all in the same city and school district. We work with multiculturally and linguistically diverse populations, coming from middle and low-income families and school communities; hence, our schools receive very modest budgets to attend the increasing numbers of students with special needs. Regular classes (Lori's, Maria's, Denise's) have between 20-25 students, and special ed classrooms (Vicki's and Jacquelyn's) between 10 and 15 students with learning disabilities and behavioral and emotional disorders.

Purpose of the Paper

This paper is the result of the joint reflection of a group of teachers on our processes of transformation while doing classroom inquiry. The unveiling of those processes showed us that our engagement in classroom research had neither an easy beginning nor a straightforward ongoing process. Even though the process of engagement is peculiar to each of us because of our unique situations, there is an overall resemblance in our struggles, feelings and insights. Four of us (Denise, Lori, Vicki and Jacquelyn) had a common context: we were attending the Teacher Enhancement Program (TEP) in which we were asked to inquire into our own teaching and classrooms. We began by harboring various degrees of skepticism and resistance, but then we moved toward a commitment to classroom inquiry and, most of all, to accepting the invitation and challenge to publish our experiences in becoming teacher-researchers. For Maria, another

colleague, the classroom inquiry is her dissertation research, and therefore her process is quite unique. Myriam, a member of the TEP staff in charge of the research dimension of the program, assisted and encouraged us to unveil our processes of transformation as something worthy to do and share with the larger educational community.

The Teacher-Research Movement

One of the distinctive characteristics of teacher-research, as opposed to conventional research on teaching, is that the teacher-researcher transforms herself/himself as s/he knows and understands better her/his classroom and teaching by inquiring into them. These processes of transformation are often not reported. That is why we made these processes the focus of our study.

Teacher inquiry, as a new paradigm of educational research, has its own epistemological assumptions and criteria of what counts as 'valid' and useful knowledge on teaching, learning and schooling (Cochran-Smith and Lytle, 1993; Anderson, Herr and Nihlen, 1994), as well as its own specific methods and proper techniques for an insider-researcher (Hubbard and Power, 1993). Teacher-research, as an *intentional* and *systematic* study of our own classrooms and schools, is an emergent approach to study *in situ* -- and by the insiders -- the educational phenomena taking place in the schools and classrooms. This approach is an *Inside Out* way of producing educational knowledge; that is, from inside the schools out toward the educational community. This is radically opposed to the traditional *Outside In* flow of knowledge, that is, from academia toward the schools and teachers. We identify with the claim of Cochran-Smith and Lytle, (1993) that the ideal flow of educational knowledge should be both *Inside Out* and *Outside In*.

Teacher engagement in classroom inquiry faces several difficulties. Some of us were very uncomfortable with the open and messy character of teacher-research. Our images and criteria of research were tied to the strategies and procedures of the scientific method. Fleischer's (1995) "prosaic history" of her developmental understanding of teacher-research brings out several times the deep traits she inherited from what she calls "psychostatistical research": issues of validity and reliability, objectivity, use of control groups, etc. Some of us found Fleischer's struggles very relevant to ours in doing teacher-research.

Another difficulty faced by teacher-researchers is with regard to publication of their studies. New paradigms need new formats; however, the acceptance of new formats requires a whole re-socialization process, both on the part of teachers and on the part of the editorial gatekeepers. Fleischer (1995) calls attention to the mismatch of styles and genres in writing between researchers and teachers, which discourages teachers from publishing.

Teacher-researchers often find themselves overwhelmed with the two roles of *teacher* and *researcher*. The basic problems lie in the separation of research from teaching and the concept of research within the conventional terms and procedures. As we engaged in the inquiry, the intimate relation between the two became clear for us. Nonetheless, there persists the problem of lack of time for writing, due among other things to teaching load and school organization. Despite the difficulties, teacher classroom inquiry is a very meaningful and insightful approach to professional development, when and if teachers have the opportunity to choose that path (Cochran-Smith & Lytle, 1993; Fleischer, 1995). We consider that choice may have made a

difference between the four of us who were resistant to engage in classroom research, and Maria who *chose* among various approaches to do teacher-research. This skepticism and resistance to engage in classroom inquiry has been reported by Torres (1996,1997) with in-service teachers and by Poetter and collaborators (1997) with student teachers.

The purpose of this paper is the unveiling by teachers, as a reflective group, of our processes of transformation while engaging in classroom systematic inquiry. This unveiling includes our struggles against preformed ideas and images of conventional 'scientific' research, the ways this research experience has influenced our present teaching practices, and our future as teacher-researchers.

The Process of Becoming Teacher-Researchers

The Teacher Enhancement Program (TEP) is a collaborative effort between the local public school systems and the University of New Mexico to allow experienced teachers to pursue an advanced degree in education. Teacher-research became a component of the program five years ago. As a central part of the curriculum of TEP, teacher participants are required to study in a systematic way our own teaching. We (Denise, Lori, Jacquelyn and Vicki) had a similar process of transformation from skepticism to engagement. Maria chose to do teacher-research as the best approach to her dissertation.

As we jointly reflected on our processes of transformation, we identified some common distinctive steps, here called scenes.

Scene One: Introducing the Idea of Teacher-Research

In becoming members of a collaborative community, the teachers in the enhancement program were encouraged to share experiences and develop a common vocabulary for discussing habits of teaching practice. We learned about the idea of classroom systematic inquiry through the work of Cochran-Smith and Lytle (1993) in their book *Inside/Outside: Teacher-Research and Knowledge*, Gordon Wells (1993) *Changing Schools from Within: Creating Communities of Inquiry*, and Hubbard and Power (1993) *The Art of Classroom Inquiry: A Handbook for Teacher-Researchers*. The introduction to research was met with doubt, resistance and questioning. But gradually we learned to look at our teaching and learning paradigms, as well as to look for evidence describing, interpreting, and constructing knowledge in relation to our daily teaching practices.

Denise: I started the program knowing that there would be research involved, so when teacher-research was presented I felt calm and tuned in because I was ready to go. I was really surprised at the others' reactions of panic, confusion and detachment.

Lori: I was moderately lost as to where my research should begin. This disorientation contributed to the feeling that what I was doing was not so much research but a display of how little I knew about a group of students in my charge. It was uncomfortable to begin with nothing and attempt to forge a path toward something meaningful.

Vicki: I had a very negative reaction to the whole concept of teacher-research. In my mind research meant scientific method and I kept wondering where the control group was and how formal a statement of hypotheses we would need to make. I wasn't excited about the process and didn't see how it could apply to my area of interest in emotional intelligence.

Jacquelyn: I was anxious to change my class curriculum to help students be positive toward math, themselves and their abilities. I had not considered how to assess the results of this change, so I was grateful for the support of the class on teacher-research.

Maria: Educational research first became relevant to me as an undergraduate. Then, as a practicing teacher, I wondered how some research applied to my practice. I did not yet have the classroom context in which to place the research I was learning about, consequently its relevance to real classrooms was diminished. As a doctoral student, the question of quantitative versus qualitative research became a relevant one. As the dichotomy between the school and the university became more evident, I found teacher-research as one way to try to bridge the gap and provide more relevance to educational issues.

Myriam: When I first introduced the idea of teacher-research to the group of 27 teachers in the mid-career enhancement program, of which four of the co-authors were members, I found resistance and skepticism in many of the teachers and in others a kind of resigned acceptance. My joint reflection with the co-authors allowed me to understand that this resistance was at least partly due to the mandatory character of the teacher research project. In addition, I learned from this group of teachers how deeply rooted are the fundamentals and the criteria of conventional research on teaching and learning, which made it difficult for them and for many other teachers to accept and engage in an alternative way of doing research. For Maria, teacher research made sense because she had received training in conventional research and found it alien to her teaching.

Scene Two: Starting the Inquiry Project

Individual research topics were generated through rereading our daily journals of the past several months and continuing observations in our classrooms. Actually, our own journal, and/or those of students were key sources of data and reflective understanding individually as well as with other colleagues in the 'Journal Groups'. Other methods of gathering data such as observation, interviewing, collecting student work, and reflecting on experiences were introduced. Small inquiry support groups met weekly for four months to share and question each other's systematic inquiry projects. Initially there was confusion because of the nature of the emergent design of our research and an evident lack of externally imposed structure.

Denise: The purpose of my research was to investigate the advantages and disadvantages of departmentalization for primary students. I had feelings of disbelief that all I was being asked to do was record what was going on in the classroom without using formal scientific methods. I was elated that I could concentrate on my teaching and how it directly affected my students during the departmentalized section of the day, but I felt resented by others who were still struggling to find a question.

Lori: After reviewing my journal it became clear that I had an interest in the Limited English Proficient (LEP) students in my classroom. I was interested in how to reach these students effectively and to improve their academic standing. I was interested in researching, implementing and observing the results of specific teaching techniques. I hoped to focus on my role in the successful delivery of content. I believe I was drawn to the needs of LEP learners because I had little training in how to best approach the learning needs of this group of students. I was compelled to research myself, my classroom and LEP teaching techniques. However, I moved away from a focus on instructional delivery and began working toward a better understanding of students' intellectual strengths and characteristics as learners.

Vicki: I couldn't understand the validity of basing research on a classroom journal. I felt that I should find a way to measure changes against a control group. When my initial questions about the difference between soft research and scientific research were answered, I had trouble framing a manageable question. My interests lay in studying (based on Goleman, 1995) how the emotional problems of my students affected their learning. I continued to have trouble collecting data that seemed to be a viable part of a research project and I was convinced that I was the only person who felt lost. I had no idea what I was doing that would constitute research.

Jacquelyn: A question that I came to over and over again from my students was, "What are we going to need this for?" I thought I was listening to my students' complaints by changing from textbooks to workbooks. I believed students would find more success with the shorter lessons and more varied examples in the workbooks. I was hoping their success would help create more positive attitudes as they made progress through the year.

Maria: Two studies and a mentor in practitioner research became crucial to adapt teacher-research as the frame of my dissertation. Lily Wong-Fillmore's (1989) "Instructional Language as Linguistic Input: Second Language Learning in Classrooms" was an observational study of the instructional language used in four bilingual classrooms. Claude Goldenberg and Ronald Gallimore (1991) collaborated on "Local Knowledge, Research Knowledge, and Educational Change: A Case Study of Early Spanish Reading Improvement." The authors, one of whom taught first grade during the study, examine the interplay among research, practice, and school improvement. Both of these studies discussed practical issues of concern to teachers and how both local and propositional or research knowledge can inform one another.

Myriam: Starting the projects for teacher-research was very demanding for me also. I needed to look for 'relevant' examples of teacher research to show teachers particular ways to carry out their inquiry. I started sharing my own project with them, because I wanted them to see how one can do research while teaching a course. My own inquiry had an open-ended focus and consisted of analyzing and documenting the processes of engagement and transformation experienced by teachers, including myself, in doing classroom inquiry. This somewhat helped teachers to understand the intimate link between research and teaching; however, I realized that these teachers did not see my own project as one of 'teacher research' because I was teaching in the university rather than in schools.

Scene Three: Becoming a Teacher-Research Community

In our small groups we were supported and challenged as we collected evidence, drew conclusions, and made assumptions. As a result of this our projects were focused more clearly and the questions being researched were better articulated. The dynamic between the individual processes and the joint construction of meaning in the small groups served to enrich each other's individual project. The major source of data was our journals, which we shared with other colleagues. We were advised to look at the activities, workbooks, evaluations, students' work, or any other information available from the regular academic activities. Like the other major decisions taken in doing our inquiry projects, the kind of evidence we were looking for and how we evaluated that evidence were supported and challenged in our inquiry groups.

Denise: For the second time in my career I was able to exchange ideas and utilize other colleagues' resources. As suggested by my small group, I began to document the evolution of my classroom from Monday to Friday. This documentation let me see changes that were happening in my teaching practice, so I started to feel excited about this teacher-research stuff.

Lori: My Inquiry and Journal Groups helped me discover that I was a guide to student learning. As a result, I began to strive for an autonomous classroom community.

Vicki: Although I was changing the delivery of my curriculum and the setup of my day in response to the students' responses, I didn't feel that I was doing research. I was challenged by group members to look at what I was doing to create community. Rather than focusing on the problem I began to focus on the desired outcome. Describing classroom incidents and interventions in a journal and discussing what I wrote still didn't feel like research to me.

Jacquelyn: I found that the students' journals best reflected the students' feelings and therefore were the main source of data concerning changes in my math curriculum. I noticed the transformation students made during lessons from boredom and negativity to excitement in finding them useful when they applied math to careers and the stock market. By reading their comments I realized how insignificant the change from textbooks to workbooks was to my students. At any rate, the workbooks continued to be printed material and drill and practice. I really needed to change from all-skill-related lessons to other media and methods of presentation, including guest speakers and real-life math lessons. My assumption that changing the type of text used would make a difference in students' interests had been entirely teacher centered. I was listening but I did not hear my students' voices.

Maria: I found a dissertation support group of colleagues who were working in second languages in the classroom, cultural studies and teaching and learning in primary settings, to be a great resource during this time. In addition, there were two people who were helpful to me throughout the entire phase of data gathering. A 'critical friend' and my classroom assistant were instrumental in helping to bring a critical element to the research. Nonetheless, the bureaucratic procedures of the Human Research Review Committees at both the university and school level was a frustratingly long wait.

Myriam: The teachers in the enhancement program have many group activities for sharing and interpreting their experiences, journals, inquiry projects, concerns, etc. The 'journal group' and the 'classroom inquiry group' were planned to be systematic opportunities to share and receive

feedback about the classroom inquiry projects. Teachers became a true community of inquirers of their own teaching and schools. As their instructor, I was actually an outsider, even though I was a member of a classroom inquiry group. I think that the situation would have been different if I had set up a collaborative project with these teachers rather than presenting them an already made project. In short, things would have been different if my project had been designed *with* teachers, rather than *on* teachers' processes.

Scene Four: The Unforeseen Benefits of Teacher-Research

The systematic study of the ways teachers engage and develop their classrooms has had immediate and long-term effects on us. In following a systematic inquiry model, we understood the connection between teaching and research more clearly, and developed strategies and methods which directly allowed us to change our teaching while we were doing research. This had a direct impact on the school community in which we worked. Our individual attitudes toward teacher-research and its validity have evolved through the research process, and will have a continuing effect on both our own and our colleagues' teaching.

Denise: When I presented my results to my colleagues, they were amazed and impressed with the documented evidence I had collected on departmentalization; as a result we were granted another year to continue the program. The systematic inquiry helped me reflect on my current teaching practices. I've always just done my teaching. Teachers don't have time to reflect, they just teach. It was really eye-opening to have the chance to reflect.

Lori: I began to identify what was meaningful for LEP students by looking at them in a holistic view which included personal strengths, feelings and other cognitive abilities. After reading Thomas Armstrong's (1994) work regarding the theory of multiple intelligences developed by Howard Gardner and its implementation in the classroom, I examined the students' seven intelligences. I was able to determine specific strength areas for each student and general areas of strength for LEP students as a whole. Looking at my students as multi-dimensional learners allowed me to develop a concrete LEP curriculum for my classroom. The *why* and *how* of student learning became my concern. I based my teaching on the strengths of my LEP students rather than on their weaknesses.

Vicki: My inquiry was not in isolation from my teaching. By bringing my teaching under scrutiny through journaling and talking with other teachers I was able to see progress, patterns of reaction, and ingrained responses to events in both my students and myself. I felt that I was just beginning to understand that systematically observing my students was a valid way to do research. My many pages of anecdotal notes seemed like an ungainly tool and only after much reflection on them was I able to begin to formulate a statement of the research I had done.

Jacquelyn: My classroom inquiry project helped me to hear my students' voices and to make changes in my math curriculum according to their 'real' needs and interests. I was defining student needs and deciding on what ways to meet them on the strength of my training and intuition. Because teacher-research is systematic and in context, I could analyze the results of changes in my own landscape, make sense of them and learn from them in a very personally meaningful way.

Maria: Teacher-research enhanced my classroom teaching, strengthened my oral and written articulation of what was occurring in the classroom, and in this way improved my practice. The daily journal writing along with my conversations about teaching and learning processes in the classroom served to transform my teaching on a daily basis. What has become evident to me in the examination of this process is my growth as a researcher, a student of bilingual education and a classroom teacher.

Myriam: Despite the resistance and skepticism from this group of teachers, I knew that the impact of the changes introduced in their classrooms would produce enough evidence for them to reconsider their attitudes toward teacher research. In fact, this was true for some of the skeptical teachers. Nonetheless, many of them had doubts about considering their research as 'academic' or 'real' research. Their reliance on journals and other 'subjective' ways to document their projects were incompatible with their ideas of 'valid' research. This is not to say that they did not consider teacher research as relevant to their teaching. I have learned from teachers attending other master's programs that the opportunity to compare the traditional paradigm of research on teaching with the teacher research principles and criteria of validity increases their confidence in teacher research as a valid way of producing knowledge about teaching and learning.

Scene Five: The Effects of Our Teacher-Research on Our Classrooms Today

A year later many of us are still engaged in systematic teacher inquiry. Although we have returned to our individual schools, and are teaching once again in isolation, the collaborative spirit has been kept alive by us. Systematic inquiry and collaboration have become tools to develop a new framework as we take on different roles within our communities. Although we are at times frustrated by the constraints of the school day, we still reach out to create new forms of collaboration and larger networks of communication and support.

Denise: I have applied what I learned last year about teacher-research to my self-contained classroom this year. I have started a Six-Trait writing research group as well as a math research group at my school. Having individuals to collaborate with is essential to continuing to challenge and question myself.

Lori: I have now applied what I discovered regarding LEP students to a different group of learners in my classroom. This group of students were, like LEP learners, having difficulty with written and spoken language although their first language was English. I saw little difference in the two groups, yet many of the same results when I examined them as learners. I now view my research as a tool that can be used with all students.

Vicki: This year my program has changed completely, and I am involved in an inclusion setting of my special education students. My special education students are included in four regular education classes out of the five academic core content areas. In addition I am involved in an Internet-based collaborative curriculum in science inquiry. I have broadened my own definition of collaborative work and have temporarily put my research aspirations on hold.

Jacquelyn: My research led me to update my teaching philosophy. I had failed to really hear the students' voices revealing their learning experiences. It takes more than professional knowledge

and commitment to build a student-centered curriculum. I now try to discern students' needs for math by hearing them as they talk about their lives and what is relevant and meaningful to them.

Maria: In examining the data, I am still attempting to connect my study to relevant issues in bilingual education classrooms. My understanding of how classroom practice and research knowledge should inform one another has grown stronger. I have also expanded my academic interests to other related issues and am bringing some of this scope of study to my dissertation. I feel fortunate to have chosen a methodology that is quite complex and rich. I envision that my study will inform practice in which the goal is to optimize children's learning in the classroom by seeing their possibilities, not their limitations.

Myriam: In working with teacher-researchers in the enhancement program, I realized that linking teaching and research is a turning point for assuring teachers' engagement in making classroom inquiry an important component of their own teaching. I have also developed many ways to link my own teaching with my research, and inquiry with learning. Consequently, I have involved undergraduate students in the courses on cultural diversity and schooling to engage in inquiry into sociocultural problems in order to learn and develop critical consciousness about them (Torres, Sleeter & Laughlin, 2000). Another turning point for teachers to continue to be engaged in teacher research is the opportunity to find colleagues within their schools with whom to collaborate. Thus, teachers' collegial support enhances the opportunity to learn systematically and intentionally from their teaching. This paper is the result of a reflective dialogue among colleagues who shared a common experience and/or purpose.

Scene Six: How We See Ourselves as Teacher-Researchers in the Future

The efforts we have made in the area of teacher-research have changed our ways of looking at children and at ourselves. Our teaching methodologies and styles of curriculum delivery have been transformed. We are actively attempting to encourage others at our sites to develop their own strategies of teacher-research. We have become empowered to talk with more fluency about teacher and student needs and we are effecting change at our sites by pushing against the established practices to allow positive changes to occur.

Denise: I see myself constantly questioning what I am doing and how it is helping or hindering my students. I am keeping track of my teaching in a journal, something I had never done before. I am more confident and have taken on a new role of helping other teachers do inquiry in their own classrooms.

Lori: As a teacher-researcher I plan to continue investigating Limited English Proficient students in my classroom and the role I play in the development of their intellectual strengths and characteristics. Due to my involvement in this particular research topic I am now in the beginning stages of pursuing an English as a Second Language endorsement.

Vicki: I have plans to do research on my classroom next year to give myself more information about the effect of inclusion on my students. I find that I am more observant of children in my room and I pick up non-verbal cues more often. The assimilation of this information gave me the courage to demand that the special education children that I teach be included in regular

education classes for four out of five content areas. This inclusion has been a successful venture and as a result of it we are changing the delivery of Special Education services at other grade levels.

Jacquelyn: I had an extremely positive experience with teacher-research. It is an effective and efficient approach to promote growth for all in the classroom. However, I am overloaded with the administrative tasks associated with special education, which grow every year; therefore it is difficult to make time to do research on my teaching. I will do my best to continue to hear my students' voices and build a meaningful curriculum *with* them.

Maria: As discussed by Goldenberg and Gallimore (1991), the local-knowledge/ research-knowledge dynamic becomes important if we are seeking to improve practice in schools. I hope to continue to work in the area of teacher-research in academia in collaboration with teachers, connecting local knowledge (practical) and research knowledge (propositional or theoretical). Through teacher-research, I hope to enhance my interests in language learning, bilingual education, cultural studies and teacher education.

Myriam: I see myself as an advocate for extending the concept of teacher research to the university and eliminating the caste differences between teacher and professor. I will be examining various ways to link teaching and inquiry, inquiry and learning with the students in my classes. I will be looking for opportunities to engage in inquiry *with* teachers/students rather than *on* or *about* them. I'm really glad that a participatory way of doing research is more and more accepted as 'valid', or at least as an acceptable way to do research.

Reflecting on Our Reflections

The understanding of our own processes while doing classroom inquiry has been for us an important, necessary and distinctive feature of teacher-research. By reflecting and describing these processes, we uncovered our transformation and growth as professionals in education. The collaborative reflection on such processes of transformation has enhanced and broadened our perspectives as teacher-researchers. Of course, the impact of this experience on our careers cannot and should not be isolated from the whole experience in the Teacher Enhancement Program, including the careful tailoring of the environment to facilitate and encourage collaboration, reflection, journaling, support and challenge, among participants and between participants and staff.

Up to this time we have distilled some important components in our processes of transformation by doing classroom inquiry:

- **Collaboration:** Peer collaboration has been of great help and significance for all of us. We were able to build a community of inquirers to support and challenge each other, as well as to broaden our perspectives and the articulation of our own inquiry. For Maria, involving a critical friend, the classroom assistant, and other mentors (i.e., professors, other graduate students) has helped her to make sense of her work as a researcher and to make connections between teaching and research.

- *Re-socialization*: Teacher-research was not appealing to some of us on our first contact with it because of our previous socialization with the idea of research. Research had been characterized by a very clear-cut standard procedure, the scientific method. In contrast with this rigidity, teacher-research looked messy, at best only relevant for the teacher and her classroom -- it was not 'real' research. Cochran-Smith and Lytle (1993) point out that embracing a new paradigm of knowledge and research, as is teacher-research, requires a "re-socialization" on the part of teachers as well as on the part of the academic community.
- *Choice vs. Requirement*: Another important factor that contributed to our initial skepticism and resistance to engage in classroom inquiry was its character as a required activity in TEP. We (Denise, Lori, Vicki, Jacquelyn) did choose to participate in the program, but we did not choose its component activities. On the other hand, Maria chose teacher-research as her paradigm for doing her dissertation. When entered by choice or by requirement, the engagement and the processes of doing teacher-research could be quite different. Despite initial skepticism toward the idea of teacher-research, we began to see its value when we observed the changes in our classrooms. This gave us an idea of how insurmountable teachers' resistance to engage in teacher-research could be when it is a top-down decision. Cochran-Smith and Lytle (1993) and Fleischer (1995) indicate the value of keeping teacher-research as a choice by teachers regarding their professional development, and not a top-down administrative mandate.
- *Primary beneficiary and transferability*: There is no doubt in our minds that the first beneficiary of doing teacher-research is the teacher by improving his/her understanding and practice in the classroom. This has been a "Path of Empowerment" as Kincheloe (1991) has proclaimed. The knowledge we were able to generate began in the study of our practice and ended by improving it. Although this teacher-generated epistemology is highly contextualized and thus is not generalizable to other situations, we found each other's inquiry experiences insightful and useful to us, to other teachers and in general to all the educational community. Hence, *transferability* rather than *generalizability*, as Anderson, Herr and Nihlen (1994) indicate, emerges as one of the key criteria of validity in teacher-research.
- *Enhancement of our role as teachers*: Even when we focused our inquiry on a small group of students, the insights we gained and the actions we took impacted the whole classroom, as well as our teaching perspectives. Based on the knowledge gained by studying our practices systematically, we now feel more able to know our students in different ways, and to articulate and justify our decisions in teaching. In brief, our roles as teachers have been enhanced across different dimensions. For Maria, her future in academia requires a research agenda in which teacher-research has served to open up other paradigms in the realm of teacher education. We concur with Goswami and Stillman's (1987) synthesis of the important changes teachers experience by doing classroom inquiry. That is, we became better theorists of our own practices, more able to connect educational theory and assumptions with practice, more capable of articulating our intentions and assumptions, and better critics and users of educational research conducted outside the schools. These are real bases for professional development and for "changing schools from within" (Wells, 1994).
- *Institutional barriers to teacher-researchers*: Pioneer teacher-researchers have had to push boundaries at the institutional level both inside and outside the schools. At the school level, the support of teacher-researchers in terms of time availability is very minimal or nonexistent. We feel that there is increasing demand that our time be devoted to activities different from either teaching or doing research. The time necessary for reflecting and writing about our inquiries is simply not available. In order to be able to reflect on our inquiry experience and to write this paper we had to work beyond the school schedule. In addition, the school structure and organization keeps us working in isolation, which precludes a sustained collegial dialogue that

may support us in our inquiry endeavors. Jacquelyn, for example, found that the one-hour lunch period, a precious time for collegial interaction and support, is going to be reduced to half an hour, thus eliminating the possibility of collegial interaction. Nevertheless, we are very proactive in creating networks inside and outside schools to maintain and support our inquiries.

Other institutional barriers have to do with the communication and publication of our studies, since most of the conferences and journals are controlled by mainstream researchers. Nonetheless, some doors are opening and we are ready to enter those doors. However, there is still a lot of resistance in the colleges of education to acceptance of teacher-research as a 'valid' approach for a dissertation. Maria faced questioning about teacher-research as a dissertation approach in addition to the long waiting time for the approval of her proposal by the human research review committees, despite the fact that she was going to study her own classroom processes. All of these difficulties are undermining the growth of the teacher-research movement despite the good intentions and efforts of many teachers and teacher advocates.

Concluding Remarks

By reflecting on our process of transformation in doing classroom systematic inquiry, we have gained important and long-lasting insights that have enlightened our practice. We want to remark on some of them:

- Although starting was not easy, the engagement in teacher inquiry and subsequent commitment to it were facilitated by seeing the changes in our own classrooms. The benefits were there for us as teachers.
- We see collaboration among teachers as a *sine qua non* condition for supporting, moving and sustaining our inquiry efforts. This collaboration or network may be at the school, district and/or national level.
- We became aware of the multiple constraints we face because of the isolation in which we work, our overloaded role as teachers, and other organizational and structural barriers of the school system. In addition, we know that the institutional validation of teacher-research is only beginning. We feel we are moving forward in this pursuit.

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