

Research Report #8

Apprenticeship for Teaching: Professional Development Issues Surrounding the Collaborative Relationship Between Teachers and Paraeducators



Robert S. Rueda, University of Southern California
Lilia D. Monzó, University of Southern California
2000

Abstract

This report discusses findings from a study that examined issues surrounding the collaborative relationship between Latino paraeducators and the classroom teachers with whom they worked. Specifically, the study examined the types of activities that the paraeducators engaged in, the input they had in classroom instructional activities, the assistance they received from teachers and others, and the factors that detracted from or fostered collaborative relationships.

The participants were drawn from two large public elementary schools in Southern California that serve predominantly working-class Latino language minority students. The school sites were chosen for their affiliation with the Latino Teacher Project (LTP), a program designed for the recruitment and retention of Latino teachers. The program supports preservice teachers monetarily through a stipend and through part-time positions as paraeducators in schools. LTP is based on an apprenticeship model as an added approach to teacher education. Paraeducators are assigned mentors at the schools who are experienced teachers.

Thirty-two paraeducators were observed and interviewed for the study. The teachers the paraeducators worked with were also interviewed, regarding their perceptions of the paraeducators' role. Between March 1998 and February 1999, eight to ten observations were made of the paraeducators working directly with students on language arts activities. Notes from classroom observations and informal conversations and interview transcripts were analyzed using a grounded approach.

Findings reveal that a lack of interaction between teachers and paraeducators allowed little time for paraeducators to ask questions of the teachers or for the teachers to assist the paraeducators in the development of effective teaching strategies. Both paraeducators and teachers indicated that more opportunities for teacher-paraeducator interaction would be very beneficial.

The findings also suggest that the school cultures are not structured to support collaboration between teachers and paraeducators, and that a hierarchical structure of social relations exists that influences how teachers and paraeducators relate to each other.

A critical finding is that teachers are not aware that paraeducators possess a knowledge of the students' culture and community that is essential for tapping into students' prior knowledge and interests.

Policy implications for professional development and areas for further research are discussed.

Introduction

Many researchers have described the complex professional development issues related to teaching in culturally and linguistically diverse classrooms (García, 1999; Zeichner & Hoeft, 1996). Some studies indicate that teacher education students are overwhelmingly white, monolingual, from small towns or suburban communities, have very little direct intercultural experience (American Association of Colleges for Teacher Education [AACTE], 1987), and often lack the necessary skills and strategies for teaching culturally and linguistically diverse students (Garza, 1991). One approach favored by some researchers for equipping preservice teachers with the skills needed for teaching this population is to have them learn to teach by working, discussing, and reflecting with other teachers in real classrooms where children are present and teachers face numerous everyday pressures (Darling-Hammond, 1998, 1995).

This approach is consistent with a sociocultural approach to learning and development, or an apprenticeship model in which social relationships are used as the foundation for helping learners move through the "zone of proximal development" with the assistance of one or more competent others (Vygotsky, 1978). One often unrecognized example of this apprenticeship model is the collaborative relationship that exists between paraeducators and teachers who work alongside each other in classrooms, especially when the position of paraeducator is viewed as a step toward becoming a teacher. Within an apprenticeship model, the roles of learners and more competent others can be interchangeable. This creates a reciprocal relationship in which paraeducators, often members of the communities in which they teach, assist teachers in developing instruction that is culturally compatible to the needs of the students. Despite the wide use of paraeducators in classrooms and the potential of this role for professional development, there is little empirical information on this group.

This report discusses findings from a study that examined issues surrounding the collaborative relationship between Latino paraeducators and the classroom teachers with whom they worked. Specifically, the report describes the types of activities that the paraeducators engaged in, the input they had in classroom instructional activities, the assistance they received from teachers and others, and the factors that detracted from or fostered collaborative relationships. Implications for professional development and suggestions for further research are discussed. Before describing the study findings, relevant research and theory are briefly reviewed.

Teaching Language Minority Students

One factor related to the low academic performance of Latino language minority students is inappropriate instruction (García, 1994; Garza, 1991). Teacher education programs and professional development have generally promoted teaching strategies that are effective with white middle-class children but often fail to support the learning of diverse students. Reyes (1992) argues that for teachers to be able to reflect and modify according to student needs, they must have some knowledge of instructional approaches for teaching culturally and linguistically diverse students. Others (Gutstein, E., Lipman, P., Hernandez, P. & De los Reyes, R., 1997; Darling-Hammond, 1998; Garza, 1991) suggest that teachers must know their students well enough to make learning interesting and meaningful for them.

Krashen (1992) and Cummins (1989) surmise that teachers serving language minority students often do not organize instruction in a manner that allows students to use the second language in interesting and meaningful ways, thus limiting their opportunities for second language development. This assertion is supported by a study of regular and special education classes of Latino English language learners. Results indicated that the type of interaction found most often in both settings was "no talk" (Arreaga-Mayer & Perdomo-Rivera, 1996). Arreaga-Mayer and Perdomo-Rivera also found that students were "passively" engaged during instruction, a finding that reveals the inability or unwillingness of teachers to make learning appealing and significant to students.

Research on teachers who work with language minority students in urban settings has found that teachers are often overwhelmed with the diverse needs of their students. They are unsure whether academic difficulties are caused by language proficiency or a lack of comprehension of the content (Gersten, Darch, Davis, & George, 1991; Gersten, Morvant, & Breugelman, 1995). As a result, teacher attrition rates in schools serving linguistic minorities are high (Darling-Hammond, 1995), creating a pool of teachers for language minority students in urban settings that is made up predominantly of novices.

A Sociocultural Perspective on Professional Development and Teacher Education

The work of Vygotsky (1978, 1987) and neo-Vygotskians (Rogoff, 1995; Tharp & Gallimore, 1988) has given teacher educators a more dynamic view of learning and development, as well as a better understanding of why teachers have difficulty applying what they learn in education courses and workshops in their classrooms. Vygotsky (1987) discusses learning as a process that occurs through social interaction with a more

competent other during participation in culturally meaningful, productive activity. This presumes that tasks are completed collaboratively, as the learner gains competence and is able to take greater responsibility for the more cognitively demanding parts of the task (Rogoff, 1995).

Further, Vygotsky (1978, 1987) contends that such participation must occur at a level that produces learning and stimulates development. He defines this particular level of participation as falling within the learner's zone of proximal development, or the range between the level of difficulty at which an individual can perform independently and the highest level at which he can perform with assistance. Tharp and Gallimore (1988) point out that continuous assessment of the learners' level of performance is essential to ensuring that they have access to the assistance that is responsive to their developmental needs.

Teacher education programs and other professional development efforts are more commonly being guided by this theoretical framework. Teachers are learning to teach by teaching in real classrooms with assistance from more experienced teachers (Darling-Hammond, 1995; 1998; Kang, 1996; McLaughlin, 1991). Within this framework, teaching is seen as a developmental process that takes place as teachers engage in the everyday tasks of planning, developing instructional strategies, and interacting with children and colleagues within the context of the school culture (Doyle 1990). Ackland (1991) adds that teaching expertise is fostered through a collaborative relationship with colleagues.

Over 300 teacher education programs now incorporate some form of practicum in schools where preservice teachers work alongside "master," or experienced, teachers. Professional development schools are also providing teacher education courses that are taught within public school settings to help bridge the gap between theory and practice. In these schools of education, students take methods courses in elementary or secondary schools, and then apply what they have learned in classrooms where they work in collaboration with a master teacher (Darling-Hammond 1998; McBee 1998). Mentoring programs for new teachers are also increasing. These programs pair novice teachers with experienced teachers who provide instructional and often moral support (Bartell 1995; Mantle-Bromley, 1998).

Another example of this apprenticeship is the paraeducator who works alongside a classroom teacher on a daily basis. For the most part, paraeducators in regular classrooms have been absent from the literature. However, with greater demand for professional development that begins early, is long term, and is grounded in actual classroom

experience, the relationship between teachers and paraeducators as a context for learning becomes a positive area for inquiry and a potential model for the preparation of teachers of language minority students. The preparation and development of teaching competence in paraeducators is particularly important as the benefits of small group instruction have become widely accepted. Their ability to be effective teachers of small groups maximizes the instructional time of students.

The Collaborative Relationship: A Context for Learning

Critical to the success of these programs and to the professional development of teachers is the nature of the relationship between the novice and the experienced teacher (Martin, 1997). Phelan, McEwan and Pateman (1996) have shown that a collaborative relationship is not always easy to achieve and is dependent on contextual factors. They studied two teams that paired a student and an experienced teacher to assist each other through a reciprocal collaborative relationship. The students would learn to teach as they engaged in teaching in collaboration with a more experienced teacher. The teachers would learn new strategies while working with the students. While one team was successful at creating a collaborative relationship that allowed both the teacher and the student to develop professionally, the other team was unsuccessful at establishing a relationship from which both could learn. In this case, constraints on collaboration were related to the student's difficulty with management, and the teacher's subsequent need to reassert her position of authority. This had a negative impact on the student's self confidence and, hence, her willingness to be an active member of the collaborative process by offering ideas and suggestions.

McNamee (1990) found through a 6-year study of a head-start literacy intervention project that building a close working relationship was essential to creating zones of proximal development for herself and for the teachers with whom she worked. She points out that the collaborative relationship she established with the teachers took "a great deal of time to develop," and that in the beginning the teachers did not share in conversations with her. As a white university professor with very different experiences from those of the teachers who were black and lived in an inner city community, she believed that this lack of openness may have been the result of cultural differences. The challenge in creating zones of proximal development was in creating a sense of collective ownership over the intervention.

Reciprocity and Cultural Compatibility

Reciprocity in the collaborative relationship is often described as the learner reciprocating by assisting the more competent other in assisting the learner through cues and questioning (Tharp & Gallimore, 1988). That is, the more competent other assists the learner through cues and questioning, but the learner helps the more competent other carry out this process by indicating when assistance is needed. There is an inherent difference in power when reciprocity is conceived of in this way. Tharp and Gallimore (1988) discuss this issue briefly, acknowledging that a collaborative relationship is more conducive to development in the absence of authority. The discussion, however, does not consider the negative effects that differences of authority have on the collaborative relationship.

Vygotsky (1978) contends that there are multiple zones of proximal development. A truly collaborative relationship would involve multiple zones where each individual provides assistance in her respective area of expertise. We believe that such reciprocity between teachers and paraeducators is possible. Some evidence suggests that teachers with similar cultural or community experiences to those of their students may be more likely to offer culturally compatible instruction (Au & Kawakami, 1994). Because paraeducators tend to be of the same or similar cultures and communities as the students in the classroom, they can serve as valuable resources for teachers by tapping into the "funds of knowledge" of their students. Funds of knowledge refers to the practical and intellectual knowledge gained through participation in household and community activity. It constitutes the collective knowledge found among social networks of households that thrive through the reciprocal exchange of resources (Moll et al., 1992; Moll & Greenberg, 1990; Gonzalez et al., 1995).

A number of researchers have discussed the importance of cultural compatibility in instruction for ensuring the full participation of ethnic and linguistic minorities in the classroom (Au & Kawakami, 1994; Trueba, 1989, 1993; Heath, 1983; Phillips, 1972, 1982; Tharp, 1989; Delgado-Gaitan, 1987). Phillips (1972) found that children on the Warm Springs Indian reservation were reluctant to speak in class, because classroom social interaction was organized in a way that was at odds with the values and norms of their community. Children on the Warm Springs reservation valued participation that emphasized cooperation, and leadership styles that were less hierarchical. In contrast, opportunities for interaction in classrooms were controlled by the teacher and organized along more individualistic lines in which students were expected to set themselves apart from the group and to speak in front of the class. Teachers, unaware of these cultural differences, regarded the children as linguistically deficient. Results from other studies of

Native American students (Yamauchi & Tharp, 1995; Mohatt & Erickson, 1981), Native Hawaiian students (Au & Mason, 1983), African American students (Heath, 1983) and Latinos (Laosa, 1981; Delgado-Gaitan, 1987; McCollum, 1989) have also found differences between home and school interaction styles that have an impact on students' opportunities to learn. However, there is also some evidence (Mohatt & Erickson, 1981; Au & Mason, 1983) that teachers of different backgrounds can learn about the culture of their students and develop instructional strategies that are relevant to their students' needs. The KEEP project in Hawaii was particularly successful in training teachers to create curricula that drew on the prior knowledge of their students and to develop instructional strategies that were sensitive to the norms and values of Native Hawaiian children (Tharp & Gallimore, 1988). Teachers in a working class Latino community in Arizona have also been successful in incorporating the funds of knowledge of students into instruction by collecting inventories of the household and community resources of their students (Moll, et al., 1992).

Methods

The data presented in this report is drawn from a larger study that examined the funds of knowledge of 32 Latino paraeducators and new teachers. After some time in the field, it became evident that the extent to which paraeducators applied their funds of knowledge in instruction was dependent on the activities that they engaged in during the time they spent in the classroom. At this point, the relationship between teachers and paraeducators and how decisions were made regarding instructional activities became a focus for exploration.

Setting

The participants were drawn from two large public elementary schools located in Southern California, both serving predominantly working-class Latino language minority students. The school sites were chosen for their affiliation with the Latino Teacher Project (LTP), a program designed specifically for the recruitment and retention of Latino teachers. The program supports preservice teachers monetarily through a stipend and through part-time positions as paraeducators in schools. LTP is based on an apprenticeship model as an added approach to teacher education. Working as a paraeducator is a requirement of the program. Paraeducators are assigned mentors at the schools who are experienced teachers. Because each mentor often has more than one mentee, paraeducators are not necessarily placed to work with their mentor in the classroom.

Both schools operated on full-year schedules. In general, paraeducators were placed in regular assignments where they worked throughout the year. When their classes went "off track," the paraeducators were placed in other classes with teachers who did not have a regular classroom aide. This meant that the paraeducators worked with at least two teachers during the school year. It was common to reassign the paraeducators to new teachers and sometimes new grade levels each academic year. Because data were gathered throughout 2 academic years, each paraeducator worked with up to four different teachers during the data collection phase of the project.

Participants

Thirty-two paraeducators were observed and interviewed for the study. Eight had become teachers within the previous 3 years, all were bilingual Latinos, and only two were male. To compare whether paraeducators working toward or planning to become teachers were treated differently or given greater opportunities to collaborate with teachers, the participants were originally categorized into four groups of eight: (1) former paraeducators, now new teachers, (2) paraeducators not enrolled in teacher education programs, (3) paraeducators enrolled in teacher education programs, and (4) career paraeducators who had been working as paraeducators for at least 10 years. However, because of the cross-over between the groups of paraeducators in and not in teacher education programs, and the belief held by many of the teachers that the schools now hired only paraeducators who were interested in teaching as a future career, groups 2 and 3 were combined into one.

One and in some cases two of the teachers the paraeducators worked with were interviewed about their perceptions of the role of the paraeducator. Because paraeducators worked with a number of teachers during data collection, deciding which teacher to interview was difficult. In some cases, the teacher with whom the paraeducator was observed most often was interviewed. In other cases, the teacher the paraeducator spoke about during interviews was the one interviewed. One administrator from each school was also interviewed.

Data Collection

Observations

Between March 1998 and February 1999, eight to ten observations were made of the paraeducators working directly with students on language arts activities. Observations averaged 45 minutes. Careful note taking during and immediately following the

observations maximized the accuracy of the data. While a total of eight research assistants conducted observations, a core team of three conducted the bulk of the observations.

Informal Conversations

Because the research assistants were assigned to specific participants, they were able to build cordial relationships with them. This resulted in many informal conversations that took place in the school hallways, in the yard during recess, and in a few cases over lunch in nearby restaurants. Notes on these conversations were written up immediately following the meetings.

Interviews

Semi-structured interviews were conducted with each participant privately to maintain confidentiality. All of the interviews were tape recorded and ran from 45 minutes to up to 6 hours, with the majority lasting approximately 2 hours. These interviews were conducted by four research assistants and later transcribed.

Data Analysis

Notes from classroom observations and informal conversations and interview transcripts were analyzed using a grounded approach. This approach involves generating initial themes from the data, which become the basis for further analysis. This approach contrasts with others in which the researcher operates with a previously developed hypothesis or with prestructured analytical categories (Spradley, 1980). Regular discussions of findings that took place in meetings and in informal conversations between the researchers led to the broad category or theme, "Role of the Paraeducator in the Classroom." Observations and interviews were then coded by the types of activities and the roles in which the paraeducators engaged. Findings revealed significant differences, and the interviews were further coded for beliefs teachers held about the role of the paraeducators. Many instances in the interview transcripts and field notes were coded regarding the interactions between paraeducators and teachers, and these codes were then clustered to form the categories "The Nature of the Paraeducator-Teacher Relationship" and "Institutional Factors Impacting Collaboration."

Findings

Role of the Paraeducator in the Classroom

The classroom activities the paraeducators engaged in varied widely and appeared to reflect how the teachers perceived the role of the paraeducators, rather than the experience, interests, or strengths of the paraeducators. Teachers tended to use all the paraeducators they worked with in similar ways, giving them regular responsibilities in the classroom. Teachers who used paraeducators to prepare materials most of the time generally used all of the paraeducators they worked with in this same way, regardless of the experience or career goals of the paraeducator. Similarly, teachers who gave paraeducators the opportunity to plan their own small group lessons tended to do the same with most of the paraeducators with whom they worked.

It is likely that the time demands on the teachers prevented them from developing an individualized plan of tasks and activities that met with the paraeducators' interests and experience. Structuring the classroom activities to meet with the paraeducators' strengths and interests would also mean that the teachers had to restructure them for themselves. Furthermore, some teachers worked with a different paraeducator each month. Under these conditions, close collaboration would seem impossible.

Teachers also indicated that they had received no information or training from the schools on the types of activities in which the paraeducators should or could be engaged. Although there are explicit state guidelines stipulating that paraeducators hired with Title I funds are to work directly with students, these regulations were not always enforced. The school administrators that we spoke with were aware that in a few classrooms the paraeducators were engaged primarily in providing teachers with clerical support. The administrators suggested that it was difficult to regulate how the paraeducators were used, because the teachers tended to use the paraeducators in areas where they needed assistance.

Overall, three roles stood out: clerical support, implementor of teacher plans, and apprentice. It is important to note that while paraeducators in most cases took on one of these roles in the classroom, in almost every case the paraeducators filled more than one role. The roles of clerical support and implementor of teacher plans were evident in almost every class, but the role of apprentice was much less common.

Paraeducator as Clerical Support

The clerical support role involved preparing materials, running errands, grading papers, and performing other clerical duties. This was the typical role performed by paraeducators in every classroom, but the amount of time spent on clerical duties varied

significantly from class to class. The amount of time paraeducators spent preparing materials increased around holidays and each time classes went on or off track. During these periods, paraeducators spent at least a couple of days and sometimes an entire week preparing the classroom, putting up bulletin boards, or taking them down. In most classrooms, however, paraeducators spent about 1 hour out of each 3-hour shift fulfilling clerical duties during regular work days.

Paraeducators in upper grade classes (4th and 5th) spent more time fulfilling clerical duties. One teacher who seemed to have her paraeducators doing large amounts of clerical work indicated that the amount of grading required in the upper grades was very high, and that she had to use the paraeducators for clerical duties in order to get the grading completed.

The paraeducators who worked in classes where they spent significant amounts of time performing clerical work generally encountered "to do" lists each morning when they arrived. They spent a good deal of time away from the classroom or sitting at a corner table working independently, which allowed little opportunity to assist or interact with students. Most paraeducators had stories to tell about working with teachers who used them primarily for clerical support. Each revealed considerable dissatisfaction with not being able to work with students and resentment at not being utilized to greater advantage.

Paraeducator: While she [the teacher] worked with a group and the other three groups worked independently, I just walked around and supervised. I didn't work with the kids. We had a lot of kids in there that were transitioning [into English], so they needed a lot of help with writing and reading. One time, I tried to tell her that I could work with a group that was having a lot of difficulty, and she just said, "Oh no, I have other plans for them." I was there for a month. I would walk around, and she had me a lot of times running errands or cutting paper or making copies, just getting stuff organized for her.

Paraeducator: In the classroom I'm in right now, I don't work with the kids. I do tons of paper work. I don't like it. I can do a lot more than correct homework and make little coloring books with them [the students]. I think I have a lot more potential, and I don't think I'm here to do that [paper work]. [The teacher] does a really good job with the kids, but she's keeping me from going ahead. I could be progressing also. You progress

also as a teacher, as a TA. Everybody is learning and growing. I feel that she's sort of held me back.

Unfortunately, the paraeducators did not feel comfortable suggesting to the teachers that they could take on a more meaningful role. Only four paraeducators, all in teacher education programs, discussed indicating to the teachers that they could work with a group of students or that they were studying to become teachers and wanted to learn by working directly with the children. Teachers, on the other hand, commented that they would like to see the paraeducators take greater initiative and have the confidence to ask questions. Clearly, there was a lack of communication between the teachers and the paraeducators that hampered the paraeducators' opportunities for engaging in more meaningful classroom activities.

Paraeducator as Implementor of Teacher Plans

The most typical scenario was that of paraeducators engaging in clerical duties but also working with students during language arts instruction on a regular basis, often participating in a small group activity that they would repeat for each reading group in the class. Typically, paraeducators were informed upon arrival to the classroom what they would be working on that day. Teachers would give the paraeducators specific activities or lessons to do with the students. While the paraeducators had some control over how the activity was completed, how the information was presented, and what assistance they provided to the students, they were not involved in planning the lessons and had little input into the content of student learning.

Teacher: She knew what to do, because I had a planning book for her. I would write things in there for her everyday. I'd say, "Today I'd like you to work with this group on this particular topic. Today I'd like you to continue working on whatever pages." We have the plans for them to follow. I always allowed her to add on it. I had to prepare for her. That would be my task to make sure that the lesson would be ready so that she only went across, point A I need to cover this, point B, point C. She never planned anything. I think that's not her role. Her role is to come in and follow up what I have. Unless she's really creative and she knows exactly what she's doing, then of course please go ahead if she's an expert on what we're doing. So the objectives were all laid out. As time went on, I didn't have to be so specific on the objectives. She knew what to do. She knew what I expected, what kinds of questions to ask.

Teachers who typically prepared lessons for paraeducators to follow viewed the paraeducators primarily as a source of support for teaching the students. These teachers did not seem to be aware that the development of the paraeducator as a future teacher was an important goal of having paraeducators in the classroom.

Teacher: The TA really allows me to reach students more effectively. In a 30-1 classroom, there's a limit to how much time I can spend with each individual student. The TA can really facilitate meeting those individualized needs. Mostly, this is done by allowing the reading time to be designated into three instructional groups so I can teach students at their instructional level.

Teacher: The role of the TA is to make it easier for the teacher to give a more diversified kind of learning, to work in small groups. It allows the teacher to free up her time so that she can give more attention to the children. And to give individualized instruction.

The activities these teachers planned for the paraeducators primarily involved teaching or reinforcement of basic skills, such as grammar and phonics. The work involved completing or correcting worksheets or specific pages from the workbook of the basal program being used. Around holidays, paraeducators were typically found working with students on holiday-related crafts. Reading instruction was almost exclusively the teacher's domain, unless the paraeducator was working with the lower reading group, in which case reading became an exercise in decoding. Paraeducators had almost no opportunity to engage in content-based lessons.

Because paraeducators are hired with little or no initial preparation, teachers are limited in the types of activities they can plan for them to work on with the students. It is understandable that the teachers would give these novice teachers lessons that they could follow straight from a workbook. Another reason that paraeducators are asked to teach a narrow range of skill-based activities may be the emphasis on standardized testing and the stress that it places on teachers. When paraeducators engage in teaching basic skills on a daily basis, the teacher has extra time to focus on more challenging concepts. During the study, almost every paraeducator leading a small group was engaged in test readiness activities with the students during the month prior to administration of the Stanford 9.

Paraeducator as Apprentice: Constructing Knowledge Through Participation

We found eight classes in which paraeducators were regularly encouraged to take on greater responsibility, including lesson planning, and had opportunities for assistance through social interaction with teachers. Three of these were in the pre-kindergarten classes with pupil-free Fridays that were used for teachers and paraeducators to plan together. This suggests that the time factor and the grade level may affect the opportunities paraeducators have for being more involved in decisions regarding content.

Of the other five teachers, two gave their paraeducators a general area of the curriculum, such as grammar and phonics, and asked that them to develop the lessons. These paraeducators were given materials and books that would help them to prepare their lessons. One of these teachers regularly helped her paraeducators brainstorm ideas. The teachers who allowed the paraeducators to plan their own lessons indicated that given the opportunity all paraeducators were able to develop creative lessons.

Teacher: In my classroom, the TA is another teacher. I rely on my TAs to teach skills. It mostly involves reading, because that's when they're here. I like them to be pretty autonomous. I don't like to have to give them lesson plans every day, and I have found that when you let them create their own they will. We communicate about what I want to have done but not the way I want it to be done. For example, we are working on short vowel words. I want you to think about any way you can teach consonant-vowel-consonant words. Do you want to play around the world? Do you want to have flash cards? Do you want to play concentration? Do you want to create a game of your own? How are you going to affect learning in something that is relatively mundane, because consonant-vowel-consonant words can be very boring but it's a stepping stone to being a good reader. I have found that I look over and they have done really neat things, some things I wouldn't have thought of myself.

The other three teachers did not have the paraeducators developing their own lessons very often, but they did allow them opportunities to discuss teaching strategies, made time for planning together, and sometimes provided feedback.

Teacher: [The paraeducator is] a teacher: a facilitator, a leader, a participant. The teacher and the paraeducator work as a team. It is very hard when it is not because the team works really well. You see it in the children. You can see it as far as scores, attitudes in school, attitudes toward quality of work.

Sometimes I can be a leader, say here's the lesson I want you to do A, B, C. There are also times when the paraeducator and I work together. This is where we are, this is where we need to go, how do we best get from point A to point B and there's communication and dialogue back and forth so they get to have their input. There are the times where the paraeducator takes a role as the leader, and also on the paraeducator. It depends on the lesson, on what we are trying to accomplish, and also on the paraeducator. If the paraeducator doesn't feel confident or that they want to be in that role it is not for me to place them in it. So, I've never tried to push them. If they feel confident, it's good for them to take that initiative. I like them to have that initiative. If they might have an area of interest that they like or that they feel really strong in, if it's their idea they should be the leader and I should be the participant and so we learn from each other.

Paraeducators who took on an apprentice role in the classroom were encouraged to develop and implement other lessons of their choice. While these paraeducators were more involved in the planning process, their involvement was limited to the lessons in which they took part. Areas of the curriculum that they were not involved with were generally not accessible to them. Because paraeducators usually worked in the morning hours when teachers offered language arts and sometimes math, they had little access to other areas of the curriculum.

The Nature of the Paraeducator-Teacher Relationship

Interaction Between Teachers and Paraeducators

Teachers and paraeducators seem to have very limited opportunities for interaction. Paraeducators begin their shifts either at the same time as the students or after the students have already begun their school day. Paraeducators on 3-hour shifts in the mornings leave before the students do. As a result, paraeducators and teachers rarely find themselves in the classroom together when the students are not present and demanding their attention. The only time the teachers have away from the students is recess time, but the paraeducators are expected to supervise students in the yard during this time. Both paraeducators and teachers suggest that opportunities for teacher-paraeducator interaction would be very beneficial.

Teacher: I have always wished that we had some time with our TAs, at least on a weekly basis, to evaluate, because they come in when school starts and they leave when we're in the middle of instruction. There's no time to

really spend discussing things. That would be a very desirable thing, to be able to at least have some one-on-one conversation with your TA. I think I would ask, "How do you feel so and so is doing? Do you see anything that I'm missing?" It would be nice to say this is where I wish so and so were going. I would like to ask "Do you have any other ideas?" Which I do. And I'm sure they do have some very good ideas.

Because of the time factor, interactions between teachers and paraeducators usually took place during class time in between activities. During our classroom visits, we observed very few interactions between teachers and paraeducators, and all but two of those we did observe were very brief. Aside from pre-kindergarten classes where the teachers and paraeducators had pupil-free days every Friday, there were two teachers who found ways to meet with the paraeducators to plan or discuss student needs and progress. One paraeducator sometimes came in early on Mondays before students arrived to meet with the teacher. She then left early on Fridays. Another teacher would play a movie for the students once a week, so that she and the paraeducator could sit and plan together for the following week.

Assistance in Instruction

In most cases, paraeducators did engage to some extent in instruction. Given that they received no training prior to employment, assistance from the teacher on teaching strategies was critical to the effectiveness of the paraeducators working with students. However, because of the lack of interaction between teachers and paraeducators, there were few occasions for the paraeducators to ask questions or for the teachers to help them learn effective teaching strategies. The best available means of assistance to the paraeducators was modeling. For those who taught small language arts groups at the same time the teachers were directing their own small groups, it was probably difficult to observe the teachers.

Only one paraeducator indicated that one teacher she had worked with sat down to observe her lesson and later gave her written and verbal feedback on the strengths and weaknesses of the lesson. Some teachers indicated that even though they had their own small group activity to concentrate on, they kept a close eye on the paraeducators as they worked with their small group. One teacher, when asked to describe some of the strategies the paraeducator used in instruction, commented that she could tell that the group was working well and that the activity was taking place but that she did not know the strategies the paraeducator was using.

Teacher: Usually, unfortunately, when she's working I'm also working so I don't sit and listen to what she's doing. I'll certainly glance over and she's always doing what I've asked her to do so I'm certainly aware that she's doing the correct thing, but I don't have the opportunity to watch her really instruct.

Our observations revealed that some paraeducators often lacked knowledge of important instructional strategies that could easily be learned with some assistance from the teachers. For example, during one observation a paraeducator created a story with students by asking them questions and then writing down their responses. However, she did not write exactly what they had said, but rather something similar in her own words that she did not read back to them. This paraeducator was observed using this strategy with three different activities. The teacher, apparently seeing the final product, was convinced that the paraeducator was extremely competent and said that "she never needed any help."

Paraeducator Input into Instructional Activities

Teachers commented that it was very important for them to receive input from the paraeducators about the students' understanding and progress during the activities that the paraeducators led. Paraeducators also said that teachers sometimes asked for their opinions about the lessons that they had planned, and that paraeducators were often given the liberty to make suggestions on how to alter the strategies used in the lesson. Teachers and paraeducators commented that paraeducators were usually allowed to enforce rules and to discipline children, according to the management system set up by the teacher.

Paraeducators did not seem to have any input into the activities that were led by the teacher or on those activities that took place when the paraeducator was not present. Even teachers who had the tendency to treat their paraeducators as apprentices usually sought paraeducator input as a way of assisting the paraeducators in their development and not as an opportunity for the paraeducator to offer feedback to the teacher. Some teachers acknowledged that the paraeducators brought their own knowledge to the classroom but did not seem to connect it with the knowledge of the students. The idea of utilizing paraeducators' knowledge of the students' culture and community for creating lessons that draw upon prior knowledge was not brought up by any of the teachers.

Furthermore, the teachers acknowledged that their paraeducators seemed to interact with students in very effective ways, but they were not aware of any specific strategies the paraeducators used in their classrooms. Interactional strategies that we found through our

observations, such as the use of *cariño*, a demonstration of affection used commonly in the Latino community, and playful language to minimize the negative effects of correcting students' academic and behavioral errors were neither acknowledged nor adopted by teachers.

If teachers were aware that paraeducators could serve as important resources for tapping students' prior knowledge, they would be more likely to seek paraeducator input into the content of instruction and to observe their interactional strategies in order to interact with students in more compatible ways.

Given a social environment that does not validate the diverse funds of knowledge of Latino students and educators, it is not surprising that paraeducators do not feel comfortable providing input. Paraeducators comment that some teachers do not appreciate them making suggestions.

Paraeducator with Interviewer:

TA: One day I overheard a comment, "Who does she think she is telling me what to do. I'm the teacher and what she's giving out her ideas, what is that?" She felt insulted, because the TA gave her opinion about her teaching method and she felt totally offended. There is a huge line there—a big separation between the TA and the teacher. I don't know if they take our ideas in real consideration.

I: Do you think TAs feel comfortable giving their ideas?

TA: No.

I: Do you?

TA: No. (laughs nervously) Not really.

Paraeducators suggested that they usually keep their comments to themselves unless asked, and they indicated that the area of content in which their input is most often sought is the Spanish language. In addition, paraeducators seem to have almost no input on grading, even though many of them work with students on a daily basis in small group language arts instruction and with some students on a more individual basis.

Mentoring

Three paraeducators, all preparing to become teachers, described relationships with teachers who they believed were instrumental in helping them learn and develop as educators. These paraeducators suggested that they had learned the most from working with these teachers in the classroom. They indicated that these teachers were always

supportive and allowed them to attempt lessons or strategies that they had learned in school. The paraeducators described their relationships with the teachers as friendships and said that the teachers gave them advice about teaching and shared stories about their own professional growth.

Institutional Factors Impacting Collaboration

Perceptions of Unequal Power Relations

The relationship between the teachers and the paraeducators was perceived by the paraeducators as one of differential power in which teachers have direct authority and control over paraeducators. This differential power seemed to be embedded in the school cultures. Paraeducators seemed to be held directly accountable to teachers. Indeed, teachers formally evaluate paraeducators, but there are no systems in place that allow the paraeducators to document the activities in which they engage. Without guidelines in place that clearly define and enforce the rights of paraeducators, some teachers schedule their activities without considering the needs of the paraeducators. For example, at one meeting for paraeducators, it was discussed that some teachers were not permitting the paraeducators time to attend a weekly potluck. At the extreme is the case of one teacher who would ask her paraeducator to go fill up her car with gas. The paraeducator felt uncomfortable but did not confront the teacher about it for fear of receiving a poor evaluation. It was not uncommon for paraeducators to be fearful of confronting teachers, because they did not want to create an uncomfortable working environment.

Career Paraeducator:

Uno como asistente tiene que dejarse llevar por lo que el maestro le diga. Uno sabe sus deberes pero uno no puede ir a imponerlos. No debo ir a hacer copias y pasarme toda la mañana, las tres horas, en la fotocopidora o cortando papeles si mi trabajo es estar con los niños. Pero para evitar se hace lo que el maestro le dice.

As an assistant, we have to do what the teacher says. We know what our duties are but we cannot impose them. I shouldn't go to make copies and spend the whole morning, the three hours, at the photocopy machine or cutting paper if my job is to be with the children. But to avoid problems we do what the teacher tells us to do.

We noted this sentiment from a number of paraeducators. For example, at one meeting two paraeducators expressed fear of asking permission from the teachers to attend, because they would likely refuse. These paraeducators opted to say that they had to go to

the restroom and just attended the meeting for a few minutes. This occurred even though the teachers were informed days in advance, which allowed them time to make arrangements to do without the paraeducators during the meeting. On a different occasion, another paraeducator became very nervous when a research assistant went into the classroom to speak to her. The research assistant included the following description in her field notes:

I went into the classroom to schedule an interview with Carmela [a paraeducator]. The students were all seated at the rug with the teacher. Carmela was sitting at the side table correcting papers. I sat down at the table where she was, talking to her quietly. After we had been speaking for about 2 minutes, she began to look nervously every few seconds at the teacher. She fidgeted with the stack of papers she had been correcting, which she had pushed to one side when I sat down. First, she grabbed them and moved them over to her and then pushed them back to the side. About 5 seconds later, again she brought them forward, taking the top one in her hand. She glanced at it, then back at the teacher. At the same time she nodded to what I was saying. She looked very uncomfortable so I stopped and asked if she would prefer if I came by when her shift was over. She seemed relieved by this, nodding immediately and smiling appreciatively, "Sí, es que, usted sabe, tengo que trabajar (Yes, it is that, you know, I have to work)."

All paraeducators discussed that some teachers make it clear that they are in charge in the classroom and have difficulty sharing control. They suggested that teachers who take this attitude sometimes treat them with little respect.

Paraeducator: Some teachers always want to keep a distance from you. They want to make it clear that they are the teacher, and you are only the TA so that whatever they say goes.

Paraeducator: I think the majority of the time teachers complain about TAs too much instead of being more appreciative. They spend their time in the lounge complaining or comparing notes about what they do wrong. If I was a teacher, I would give the TA all my respect and try to get all her ideas.

Career Paraeducator:

Hay muchos maestros que son muy posesivos, muy mandones. Hay algunos que nos tratan por debajo. No creo que deben de ser humillantes.

There are many teachers who are very possessive, very bossy. There are some that treat us as if we are beneath them. I don't believe they should humiliate us.

Paraeducator:

Los niños tenían la tendencia de ir conmigo aunque me veían en una esquina rodeada de papeles. Cayadamente me decían que les ayudara. En una ocasión la maestra me gritó delante de todos los estudiantes, "Tu no eres la maestra. Si necesita ayuda que venga conmigo!"

The children had the tendency to go with me even though they saw me in a corner surrounded by papers. Quietly they would ask me to help them. On one occasion, the teacher screamed at me in front of the students, "You are not the teacher. If he needs help he can come with me!"

A number of teachers corroborate this, indicating that they notice this need for control among their colleagues. They suggest that giving up control may be difficult for some teachers, because they are ultimately responsible for everything that happens in the classroom. One teacher suggests that it is important for students to distinguish between the TA and the teacher.

Teacher: Sometimes a child might not relate to a teacher but might to a TA. Now that might become a problem if the child sees the TA as the teacher and the TA does not help the child understand that the teacher is the one in charge and that the major curriculum decisions and behavior decisions are made by the teacher and not by the TA.

Interestingly, discussions about teachers asserting their position of authority in the classroom and treating paraeducators with little respect seemed to strike a chord with some paraeducators. The majority of paraeducators discussed the inequity between teachers and paraeducators. Some shared stories of past experiences, but said that the

teachers they worked with now were supportive. A few discussed these inequalities but indicated they had been lucky and had never had any negative experiences with the teachers with whom they worked. Past negative experiences with teachers or even hearing about these experiences from other paraeducators seemed to be enough to discourage paraeducators from making suggestions to teachers out of fear that some teachers might not welcome their input.

Of all the observations that took place, a paraeducator was observed attempting to contribute to a teacher's lesson only once. The teacher did not acknowledge the suggestion, and thus rendered it invalid in the eyes of the students. The suggestion came during a whole group English as a second language (ESL) lesson lead by the teacher. She had provided oral information and later asked the students descriptive comprehension questions. The students were having difficulty remembering the facts that had been provided orally, and the paraeducator interjected that one strategy for remembering facts was to take notes. This suggestion to the students came while the teacher had momentarily turned to write on the board.

Paraeducator: In the test you will have paper and can take notes down.

Student: That's cheating!

Paraeducator: It's tuning your listening skills.

When the teacher turned back toward the students, she did not comment on the paraeducator's suggestion. Instead, she proceeded with the lesson without any mention of the possibility of taking notes. Her lack of a response made the suggestion seem trivial or incorrect.

Indeed, one career paraeducator discussed feeling constrained in interacting with students in the presence of teachers, because "you work under a lot of pressure. You don't know if what you say will be acceptable to the teacher or not." This was also noted by a career-ladder paraeducator who was observed in the classroom in the absence of the teacher on two occasions. During one of these visits, the paraeducator was observed working hard to encourage engagement with the task and to show support for the students. On the second visit, he was observed spending more time with the text, explaining English vocabulary that was unfamiliar to the students. His comment regarding this lesson suggests that had the teacher been there, he would have done the lesson as expected rather than suggest to the teacher that the children needed to spend more time discussing the text to make it comprehensible.

Paraeducator: If the teacher would have been here, I would not have done the lesson this way. I know she would not have approved. She wants me to do the lesson quickly. Even the students tell me, "You teach better when the teacher is not here."

Furthermore, the way teachers and paraeducators addressed each other outside of the classroom also revealed the power structure that exists between them. Outside the classroom, teachers tend to address each other, as well as paraeducators, informally by their first names. Paraeducators on the other hand do not generally address teachers by their first names.

Organizing for Collaboration

Collaboration between teachers and paraeducators is not likely to take place in an environment that does not value such activity. Opportunities for collaboration were not built into the organization or culture of the schools. Paraeducators and teachers at both schools did not attend the same meetings or workshops. Even when the discussions concerned both teachers and paraeducators, separate meetings were arranged. One career-ladder paraeducator complained that meetings should be scheduled before school so that teachers and paraeducators could attend together. She indicated that keeping the meetings separate "serves to further separate us, like there is a big difference between them and us." She went on to say that workshops should be offered for the teacher and paraeducator to be "working together, like a team."

Paraeducators and teachers generally do not have the same breaks and thus find it difficult to interact with each other. This is the case at both schools. At one school, there has been an attempt by the administration to integrate teachers and paraeducators. As a result, they have organized Friday potlucks; during which time paraeducators can take time from the classroom to interact socially in the lounge. Observations of these social gatherings reveal that, in general, teachers and paraeducators still sit at separate tables. Paraeducators who work a full-day shift or two 3-hour shifts have the opportunity to interact with teachers in the lounge during lunch. Yet, the same pattern persists, with paraeducators and teachers separating themselves out.

Impact of Teacher Track

While all paraeducators suggested that they preferred working directly with students and enjoyed having some degree of autonomy in the classroom and having their opinions

heard, those paraeducators who planned to become teachers were especially interested in taking on a larger role that would allow them to develop their teaching skills.

Paraeducator: Of all of the teachers I've worked with, none of them are like her [teacher]. I love the place she's given me in the classroom. At the beginning, she made it clear to the kids, "This is your teacher, not your TA. You respect her like you respect me." She told the parents, "This is the other teacher in the room." She'll tell me, "This week I want you to work on phonics with them. Brainstorm any way you want to do it with them. Do it as a game, do it any way you want." I think it's helping me to develop my own ideas. I actually have to go home and figure out how I'm going to do it [the lesson] tomorrow. I actually feel very important in the classroom.

Coordinators at both schools suggested that they were particularly interested in hiring paraeducators who wanted to become teachers or who were going to use their experience as a stepping stone toward a career working with children. At one of the schools, whether or not paraeducators had plans to become teachers had some indirect bearing on which class they were assigned, because career-ladder paraeducators were considered more likely to put extra time and effort into the classroom and school activities. Thus, the coordinator tended to place these paraeducators with teachers who would allow them to be more involved.

Impact of Being a Former Paraeducator

The eight new teachers who were former paraeducators all claimed that having been paraeducators had been key in their development as teachers. They claimed to be aware of how they treated the paraeducators who worked with them, because they had once been in their role. Whether or not this made them more collaborative in their relationships with the paraeducators was unclear. These eight teachers suggested that they treated paraeducators as "teachers," and that they were very open to suggestions and feedback from the paraeducators. All eight teachers used the paraeducators to implement their plans, but they did not discuss having a specific time for planning and discussing teaching strategies with the paraeducators. One of these new teachers said she expected each paraeducator in her classroom to develop one bulletin board. She indicated that she let the paraeducators know that she wanted them to suggest ideas, give feedback, and even develop their own lessons if they felt they were ready. We found more teacher-paraeducator interactions in the classrooms of these former paraeducators than we found in the classrooms of paraeducators working with other teachers. Yet, even in these classes

interaction seemed to be brief during transition times or while students worked independently.

Discussion

The findings of the study reveal that, for the most part, paraeducators do engage in teaching students. Whether lessons are laid out for them or whether they develop their own, paraeducators are instructing children, using questioning strategies, engaging in some management techniques in the small groups they lead, and assessing student learning in order to offer assistance as they execute lessons. Undoubtedly, this has led to growth. Paraeducators who engage only in executing lessons and are not involved in the planning process are likely to have some difficulty understanding why such activities are important, how they connect to other lessons, and how they contribute to the students' overall development.

Paraeducators receive assistance mostly through modeling. They observe teachers giving lessons. They may gain some knowledge of the continuity of planning from the lessons that they observe or are asked to deliver. They may learn from the teaching manuals and materials they have access to in the classroom. However, there is no substitute for the kind of assistance that is received through verbal interaction with a more experienced teacher. Discussions on the development of a lesson can lead potential teachers to understand how lessons develop from a learning objective, how different lessons are organized to support an objective, how the products that they often work on can support an objective through practice or can aid the teacher in assessment and evaluation. Through discussion, paraeducators can examine their beliefs and develop theories about learning and teaching, theories that they can turn to as they continue to work with students. Questioning paraeducators can help them articulate their beliefs about education and can focus them to think about what they encounter in the classroom. Encouraging paraeducators to share their ideas can give them the confidence to test their ideas.

Unfortunately, the findings reveal that most paraeducators do not receive verbal assistance. Without having a good idea of what the paraeducators are capable of doing, it is difficult to model instruction that falls within the paraeducators' zones of proximal development. This is disturbing given that paraeducators, regardless of career track, work with students and should be developing instructional strategies that are going to benefit student learning.

A critical point is that teachers do not recognize that paraeducators possess a knowledge about the students' culture and community that is essential for tapping into students' prior

knowledge and interests. Paraeducators also have interaction styles that are culturally based and may be effective for working with the students. Teachers are unaware of how this knowledge can be incorporated into lessons to make them more meaningful to students and to increase engagement and participation. Furthermore, the teachers do not acknowledge nor adopt the features of interaction that paraeducators use in instruction.

In addition, the simplistic nature of the activities in which paraeducators are usually engaged limits their potential for contextualizing lessons based on the cultural and community knowledge of the students. This may be one reason why teachers are not aware of the resources that paraeducators possess. At the same time, it is important to understand that teachers are constrained in the types of activities they can assign to paraeducators, because of the importance placed on standardized testing and the fact that they are held accountable for their students' scores. Having the paraeducators work on the skills that are often the focus of standardized tests alleviates some of the pressures that teachers face.

The problem of collaboration is related to a school culture that supports a hierarchical structure of social relations. The position of paraeducator falls below the position of teacher within this hierarchy. This organization supports differences in power that directly influence how teachers and paraeducators relate to each other. The school climate is clearly not one that supports collaboration. Tharp and Gallimore (1988) suggest that schools as institutions of learning must be organized so each member of the school receives assistance from those directly above them. Although Tharp and Gallimore do not include the paraeducator in their discussion, paraeducators are clearly part of the school community, and schools should be organized to support the assistance of the paraeducator by the teacher.

Such organization would help minimize differences of power by doing away with traditional evaluations of paraeducators by teachers and implementing, instead, a joint assessment of how the team works together with each writing down their own and their team member's strengths and areas for improvement.

Organizing schools to support collaboration would include making time for paraeducators and teachers to meet daily a priority. The lack of time issue was one that surfaced consistently in the study. In many schools, paraeducators do not supervise students during recess. This time during recess could be used for teachers and paraeducators to meet. Time could also be set aside in the mornings. Paraeducators who work 3-hour shifts could come in a half hour earlier than normal to meet with teachers. This would mean that the paraeducators spent slightly less time with the students, but it would benefit

instruction for the students and would allow the paraeducators an opportunity to be involved in planning.

Organizing schools for collaboration requires the understanding that team building takes time. Keeping a teacher and paraeducator team together for at least 2 years and preferably longer would be very beneficial.

Finally, schools and teachers should follow the job descriptions for which paraeducators are hired. Both teachers and paraeducators should be aware of state guidelines as well as school policies regarding the use of paraeducators. Administrators should be willing to enforce these policies.

Collaboration requires an acknowledgement that both teachers and paraeducators have something meaningful to contribute. The school culture must validate the knowledge that students and educators from culturally and linguistically diverse backgrounds bring to the classroom. For collaboration to be a priority, teachers must understand that tapping this knowledge is essential to the academic success of diverse students. Paraeducators who live in similar communities are a valuable resource for helping teachers access this knowledge.

Policy Implications and Further Research

Clearly, there is a need for the professional development of school administrators, teachers, and paraeducators on the important role that experienced teachers must play in the development of future teachers. Practical training on the types of activities in which paraeducators should be taking part is also very important as are the types of assistance that teachers can provide to paraeducators.

Schools must work to create learning environments that validate the funds of knowledge of diverse educators and allow them to embrace this knowledge, use it strategically in instruction, and share it with their colleagues. This requires training for administrators, teachers, and paraeducators on the significance of creating culturally compatible instruction.

A school culture that recognizes the connection between the knowledge that paraeducators bring to the classroom and student achievement will make it a priority to reorganize in ways that allow teachers and paraeducators opportunities for collaboration, including regular time for weekly planning and interaction.

Clearly power differences have an impact on the development of a collaborative relationship. There is a need to minimize the differences of authority that exist in the classroom and to make teachers and paraeducators accountable to each other. This must begin with clear and explicit guidelines on the rights and responsibilities of both teachers and paraeducators, and a system that supports both equally.

The findings of this study have provided some insight into the constraints on the collaborative relationships that support the professional development of teachers and paraeducators. However, more in-depth studies that follow particular teams of teachers and paraeducators would provide a better picture of how teachers and paraeducators can work together to support each others' professional development. Intervention projects that promote these efforts are needed. In addition, research that examines how age, experience, gender, and culture impact the relationship between teacher and paraeducator would be very useful. Finally, there is a particular need to better understand how diverse funds of knowledge can be legitimized and supported by school cultures.

References

- Ackland, R. (1991). A review of the peer coaching literature. *Journal of Staff Development*, 12, 22-27.
- Arreaga-Mayer, C., & Perdomo-Rivera, C. (1996). Ecobehavioral analysis of instruction for at-risk language-minority students. *The Elementary School Journal*, 96, 245-258.
- Au, K. H., & Kawakami, A. J. (1994). Cultural congruence in instruction. In E. R. Hollins, J. E. King, & W. C. Hayman (Eds.), *Teaching diverse populations: Formulating a knowledge base* (pp. 5-24). New York: State University of New York Press.
- Au, K. H., & Mason, J. M. (1983). Cultural congruence in classroom participation structures: Achieving a balance of rights. *Discourse Processes*, 6, 145-167.
- American Association of Colleges for Teacher Education (AACTE). (1987). *Teaching teachers: Facts and figures. Research about teacher education project*. Washington DC: Author.
- Bartell, C. A. (1995). Shaping teacher induction policy in California. *Teacher Education Quarterly*, 22, 27-43.

Cummins, J. (1989). A theoretical framework for bilingual special education. *Exceptional Children*, 56, 111-119.

Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership*, 55, 6-11.

Darling-Hammond, L. (1995). Changing conceptions of teaching and teacher development. *Teacher Education Quarterly*, 22, 9-26.

Delgado-Gaitan, C. (1987). Traditions and transitions in the learning process of Mexican children: An ethnographic view. In G. Spindler & L. Spindler (Eds.), *Interpretive Ethnography of education* (pp. 333-359). Hillsdale, NJ: Laurence Earlbaum.

Doyle, W. (1990). Classroom knowledge as a foundation for teaching. *Teachers College Record*, 91, 347-360.

Garza, A. (1991). Teaching language minority students: An overview of competencies for teachers. *Teacher Education Quarterly*, 18, 23-36.

García, E. E. (1994). *Understanding and meeting the challenge of student cultural diversity*. Princeton, NJ: Houghton Mifflin.

García, E. E. (1999). *Student cultural diversity: Understanding and meeting the challenge* (2nd Ed.) Boston: Houghton Mifflin.

Gersten, R., Darch, C., Davis, G., & George, N. (1991). Apprenticeship and intensive training of consulting teachers: A naturalistic study. *Exceptional Children*, 57, 226-237.

Gersten, R., Morvant, M., & Breugelmann, S. (1995). Close to the home: Coaching as a means to translate research into classroom practice. *Exceptional Children*, 62, 52-66.

Gonzalez, N., Moll, L., Tenery, M., Rivera, A., Rendon, P., Gonzales, R., & Amanti, C. (1995). Funds of knowledge for teaching in Latino households. *Urban Education*, 29, 443-47.

Gutstein, E., Lipman, P., Hernandez, P., & De los Reyes, R. (1997). Culturally relevant mathematics teaching in a Mexican-American context. *Journal for Research in Math Education*, 28, 709-737.

Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. New York: Cambridge University Press.

Kang, H. (1996). Helping teachers thrive on diversity and change. *Teacher Education Quarterly*, 23, 75-84.

Krashen, S. (1992). *Principles and practice in second language acquisition*. Oxford: Oxford Pergamon.

Laosa, Luis M. (1981). Maternal behavior: Sociocultural diversity in modes of family interaction. In R. Henderson, (Ed.), *Parent-child interaction: Theory, research, and prospects*. New York: Academic Press.

Mantle-Bromley, C. (1998). "A day in the life" at a professional development school. *Educational Leadership*, 55, 48-51.

Martin, D. (1997). Monitoring in one's own classroom: An exploratory study of contexts. *Teaching and Teacher Education*, 13, 183-197.

McBee, R. H. (1998). Readyng teachers for real classrooms. *Educational Leadership*, 55, 56-58.

McCollum, P. (1989). Turn-allocation in lessons with North American and Puerto Rican students: A comparative study. *Anthropology and Education*, 20, 133-156.

McNamee, G. D. (1990). Learning to read and write in an inner city setting: A longitudinal study of community change. In Luis C. Moll (Ed.), *Vygotsky and Education: Instructional implications and applications of sociohistorical psychology* (pp. 287-303). New York: Cambridge University Press.

Mohatt, G. V., & Erickson, F. (1981). Cultural differences in teaching styles in an Odawa school: A sociolinguistic approach. In H. T. Trueba, G. P. Guthrie & K. H. Au (Eds.), *Culture and the bilingual classroom: Studies in classroom ethnography*. Rowley, MA: Newbury House.

McLaughlin, M. W. (1991). Enabling professional development: What have we learned? In A. Lieberman & L. Miller (Eds), *Staff development for education in the 90s: New demands, new realities, new perspectives* (pp. 61-82). New York: Teachers College Press.

Moll, L. C., Amanti, C., Nett, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice*, 31, 132-141.

Moll, L. C., & Greenberg, J.B. (1990). Creating zones of possibilities: Combining social contexts for instruction. In L. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociocultural psychology*. Cambridge University Press.

Phelan, A., McEwan, H., & Pateman, N. (1996). Collaboration in student teaching: Learning to teach in the context of changing curriculum practice. *Teaching and Teacher Education*, 12, 135-153.

Phillips, S. (1982). *The invisible culture: Communication in classroom and community on the Warm Springs Indian reservation*. New York: Longman.

Phillips, S. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In C. Cazden, V. John, and D. Hymes (Eds.), *Functions of language in the classroom*. Prospect Heights, IL: Waveland Press.

Reyes, M. de la Luz. (1992). Challenging venerable assumptions: Literacy instruction for linguistically different students. *Harvard Educational Review*, 62, 427-446.

Rogoff, B. (1995). Evaluating development in the process of participation: Theory, methods, and practice building on each other. To appear in E. Amsel & A. Renninger (Eds.), *Change and development: Issues of theory, application, and method*. Hillsdale, NJ: Earlbaum.

Spradley, J. P. (1980). *Participant observation*. New York: Harcourt Brace Jovanovich.

Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning, and school in social context*. New York: Cambridge University Press.

Tharp, R. G. (1989). Psychocultural variables and constants: Effects on teaching and learning in schools. *American Psychologist*, 44, 349-359.

Trueba, H. (1993). From failure to success: The roles of culture and cultural conflict in the academic adjustments of Chicano students. [ERIC Document Reproduction Service No. 387 285]

Trueba, H. T. (1989). *Raising silent voices: Educating the linguistic minorities for the 21st century*. New York: Newbury House.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1987). *L. S. Vygotsky, Collected works Vol. I* (R. Rieber & A. Carton, Eds; N. Minick, Trans.). New York: Plenum. (Original work published 1934).

Yamauchi, L. A., & Tharp, R. G. (1995). Culturally compatible conversation in Native American classrooms. *Linguistics and Education*, 7, 349-367.

Zeichner, K. M., & Hoeft, K. (1996). Teacher socialization for cultural diversity. In J. Sikula (Ed.), *Handbook of research on teacher education* (pp. 525-547). New York: Macmillan.

The work reported herein and the editing and production of this report were supported under the Educational Research and Development Centers Program, Cooperative Agreement Number R306A60001-96, as administered by the Office of Educational Research and Improvement, U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of the National Institute on the Education of At-Risk Students, the Office of Educational Research and Improvement, or the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

Apprenticeship for Teaching: Professional Development Issues Surrounding the Collaborative Relationship Between Teachers and Paraeducators, Research Report 8. © 2000 by the Center for Research on Education, Diversity & Excellence, Santa Cruz, CA and Washington, DC.