

Practice Makes Practice, or Does It? The Relationship between Theory and Practice in Teacher Education (An Educology of Teacher Education)

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Abstract

This study examines the role that theory and practice play in the preparation of new teachers. It presents multi-layered observational, anecdotal and performance data relating to a group of undergraduate “interns” in an urban elementary teacher education program. These data lend support to the hypothesis that the understanding by new teachers of the relationship between theory and practice influences (1) the way they position themselves as professionals, (2) the conceptual stance they take in developing curriculum and (3) the degree to which they come to see themselves as change agents who can make a difference in the lives of children. Observational data are provided for four interns during their student teaching experience and two years later when they are teaching on their own. The authors conclude that education is theory all the way down and that educologists in teacher education programs have a particular obligation to address theoretical issues in their work with future teachers.

Introduction

One of the problems in re-imagining the educology of teacher education lies in how we talk about theory and practice. Often theory and practice are spoken about as if they are opposites of each other, and sometimes they are-- in the sense that each has to compete with the other in terms of time. Even when there is general agreement that both theory and practice are necessary, someone will inevitably ask: *But really, how important is theory? What contribution to teacher preparation do field experiences make? If forced by time constraints to make a choice, how much of one or the other is enough?*

The very discourse we use legitimizes certain perspectives and conceptually positions us (Gee, 1996; Luke & Freebody, 1997; Lankshear, 1997). As literacy educators, i.e. as educologists of literacy, we see curriculum metaphorically as an opportunity to live the life we want to live and be the people we want to be (Harste, 1993). In this paper, we extend the metaphor to the educology of teacher education and invite readers to consider what sorts of literate beings they want to have leading classrooms in the 21st Century. The theory-practice debate as it has rhetorically and historically been cast becomes dysfunctional when the educology of teacher education is reconceptualized as an opportunity for future teachers to live the lives they want to live and be the people they want to be. At stake now are new visions of what is possible in the name of school reform and the reform of teacher education as the educology of teacher education.

Educological studies of student teachers do not paint an optimistic picture of the ability of new entrants to reform public education. Britzman's study (1992) concluded that *practice makes practice*. Britzman found that, regardless of

how innovative the teacher education program was, many student teachers adopted teaching practices which reflected those of the mainstream practitioner rather than those advocated in their educology courses. Goodman (1985, 1986) has argued that part of the problem lies in how we conceptualize the educology of teacher education:

Even though there is no simple technology of teaching, we have for a number of years conceptualized teaching as a series of techniques for management and instruction, and teacher education as the transmission and practice of these techniques in a supervised setting. [1986, p. 109]

Compounding the problem, Harste, Leland, and Schmidt (1997) maintain:

... is the fact that most prospective teachers are not enrolled in a teacher education program at all, but rather take a hodgepodge of course work from a hodgepodge of professors having a hodgepodge of theoretical orientations, and are placed for practicum experiences in a hodgepodge of settings. The only clear bet is that what student teachers believe and what their supervising teachers believe about teaching and learning will differ. [p. 1]

Make no mistake about it -- we are interested in both public school and teacher education reform, although the very term *reform* is problematic in that it has come to mean that someone from the outside is coming in to correct things that those on the inside cannot manage to do. Rather than a quick fix (Harste & Leland, 1998), this study looks at a particular kind of educational reform, one that involves ongoing renewal by educators themselves. Building from insider efforts to envision public education in terms of what kind of literate beings we wish to create, we re-envision teacher education in the same terms. Rather than seeing theory and practice as opposites or as framing devices, we see them as perspectives that permeate this work.

Living Practical Theory and Theoretical Practice in Public and Teacher Education

One daunting implication of this analysis of the current state-of-practice is the realization that in order to re-envision teacher education, one must simultaneously re-envision public education. To study such possibilities we worked with a group of teachers from the Indianapolis Public Schools (IPS) who wished to create their own magnet school. The school opened in 1993 with a curriculum dedicated to holistic, inquiry-based education within a multiple ways of knowing framework (Harste, 1993; Short, Harste, & Burke, 1996). Two years after The Center for Inquiry (CFI) opened, we added a field-based teacher education component, and together with the staff, took responsibility for the preparation of 16 preservice teachers (interns). This included all of the interns' professional educology courses and supervision of their field experiences and student teaching. Theoretically, both curricula -- the CFI's and the teacher education program's -- were the same. Interns took all of their educological foundations and methods courses on site at the CFI, and they increased their time commitment over the course of the program. They began with two days a week during the first semester, two and a half days during the second semester, three days during the third semester, and five days a week during the fourth.

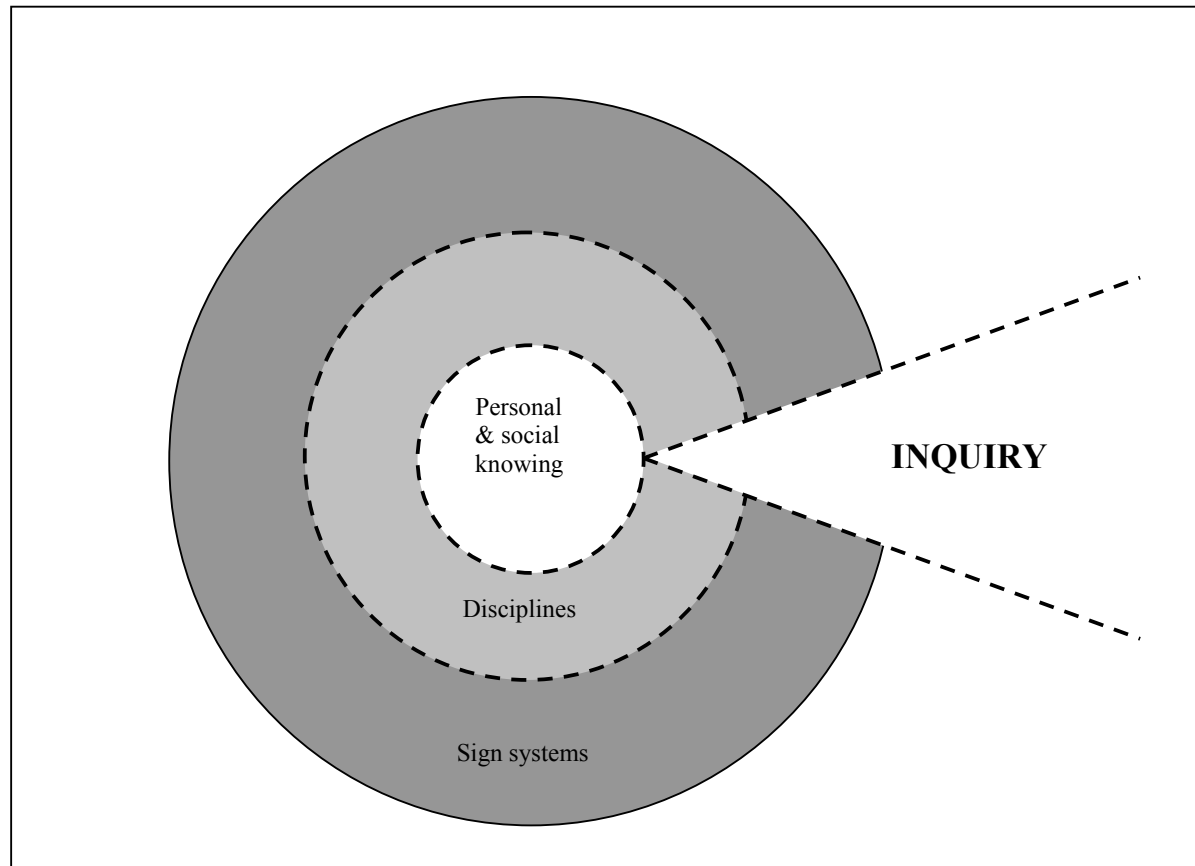
Undergraduate interns at the CFI lived an inquiry-based curriculum in their on-site course work and simultaneously saw how such a model was implemented in the classroom. While our various visions of *what could be* played a big role in the design of both the school and the teacher education setting, what was not clear was how much of an impact

these frameworks would have on the thinking and behavior of the undergraduate interns involved.

Theoretical Foundations

Three conceptual models underpinned the school's curriculum and the teacher education program. Figure 1,

Figure 1: *Education for Democracy*



Education for Democracy, poses the whole of education as inquiry (Short, 1993; Short, Harste, & Burke, 1996). This model is purposefully drawn to challenge some common assumptions about the role that the disciplines should play in education. One assumption that we wanted to interrogate is the pervasive belief that learners are well served by organizing curriculum around the disciplines.

The model in Figure 1 suggests a new vision of curriculum that is organized around personal and social knowing. The basic argument is education is more effective when curriculum is built upon the inquiry questions of learners.

The second argument that the model generates relates to the first, but involves questions like, *What knowledge and whose knowledge is of most worth?* Placing the disciplines in the second ring and not in the center of the model, makes the argument that disciplines, while important, are valuable only in so far as they offer perspectives that inquirers might take as they explore questions of personal and social worth. The outer ring completes the model and makes another point. Rather than being language-based, or what Siegel (1985) has called *verbocentric*, education should involve all of the various ways that humans have created to make and share meaning including art, music, mathematics, drama and so on. While some of these *sign systems* also constitute fields of study or disciplines in their own right, what they share in common is their tool-like qualities. As tools, they are used by experts in and across disciplines to create meaning. Together, then, sign systems constitute a human meaning potential. Seen semiotically, sign systems are a literacy tool kit which educators (and educologists) use to build conceptual models for framing their thinking (Davis, Sumara, & Luce-Kapler, 2000).

Although all sign systems are available to all cultures, not all cultures value all sign systems equally. To some extent, the respect for individual sign systems in a society determines whose voice will be heard. Given these realities, the model highlights the political nature of literacy, and it is indicative of how literacy policy directly impacts schooling in a democracy. The model advocates expanding our notions of literacy to include all of the ways that humans have created to mean. This allows access to education for all individuals, not just for those who focus primarily on language as a meaning-making device. The wedge cutting through the three rings indicates that both multiple sign systems and multiple disciplines ought to be readily available as resources for learners as they pursue inquiry projects and other forms of focused study that reflect their interests. Inquiry is the smallest unit of instruction in this model (Short, Harste, & Burke, 1996).

Figure 2, *The Inquiry Cycle*, metaphorically casts learning as a cycle of inquiry by highlighting the key underlying processes in inquiry (Harste, 1993; for other frameworks see Henkin, 1998; Wells, 2000; Beach & Myers, 2000). The cycle suggests that learning begins by supporting voice, or the articulation of what is currently known, and ends in reflection, interrogation, and new social action. It is important to note that *voice* is seen as a educology-of-mind construct with educology-of-society roots. Learners need to be supported in taking a stand and in speaking their minds while at the same time interrogating how societies and literacies have positioned them. By highlighting the underlying processes in inquiry, the model suggests that curricular engagements should support either complete cycles of inquiry or in-depth understandings of key learning processes. More broadly, Figure 2 also

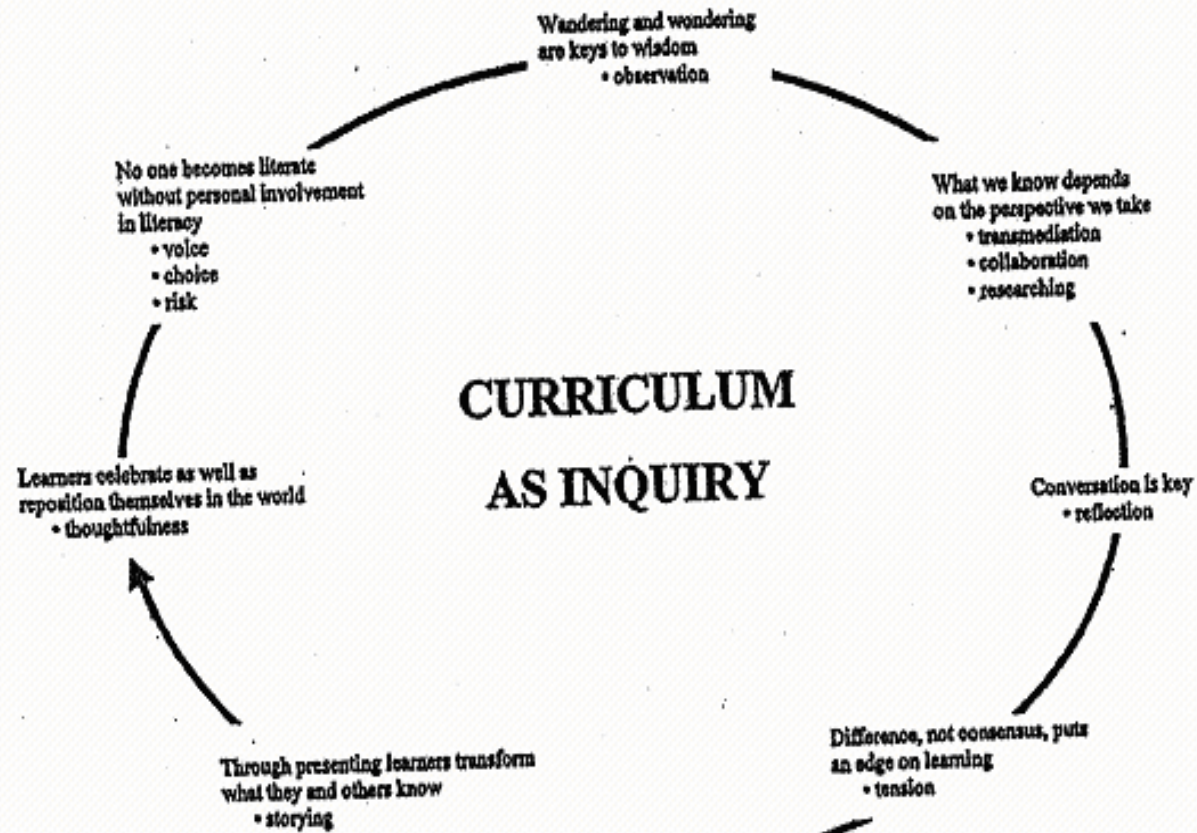
suggests that curriculum should be anchored in learning and that the proper goal of education is the creation of learners who know how to inquire. It is important to notice that the inquiry cycle begins and ends in the articulation of one's stance, thereby showing that: (1) teaching and learning are theoretically based, and (2) educology is theory, from start to finish. Both teachers and teacher educologists begin by supporting learners as they attempt to articulate what it is they know and end by supporting learners in their efforts to re-articulate and re-position themselves in the world, based on what they have learned.

Figure 3, *Multiple Ways of Knowing*, can be read in two ways. An outward-to-inward reading of the model suggests that dance, art, music, mathematics, drama, and language are each alternate ways to make and share meaning. An inward-to-outward reading of the model implies that every act of communication involves multiple sign systems. As literate individuals, we have learned to orchestrate these various sign systems as we make and share meaning in a series of multi-modal acts. By this model, education ought to support the development of each and every citizen's communication potential as well as tap into and capitalize on alternate ways of knowing. Music does not do what art does, nor does art do what language does. Together, all of the sign systems qualitatively contribute to a more in-depth knowing and understanding. To the extent that different cultures have different ways of knowing, diversity and multiple literacies enrich society.

Curriculum

Practically, these models guided the development of the curriculum that was offered to pupils in the elementary school and to undergraduate interns in the on-site teacher

Figure 2: Curriculum as Inquiry



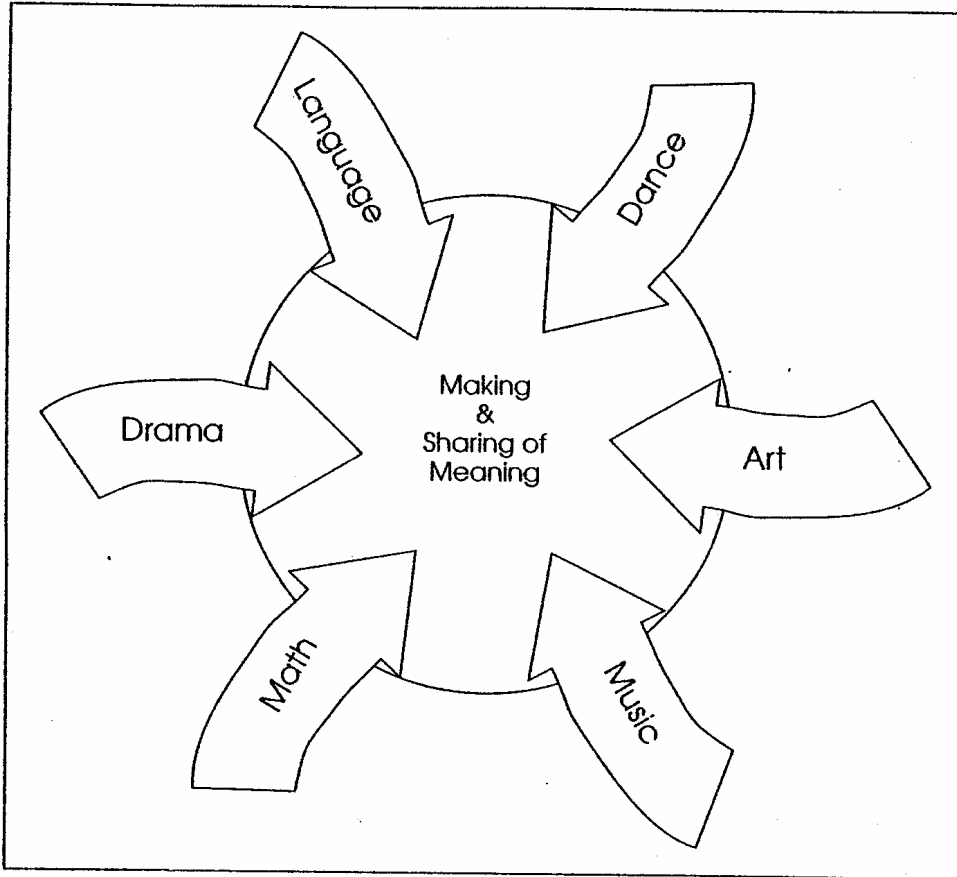


Figure 3. Multiple Ways of Knowing (Harste, Short, w/ Burke, 1996)

education program. The curriculum of the elementary school consisted of four major time blocks. *Writer s Workshop* provided time for daily uninterrupted writing in

journals as well as time to compose stories and take them to published form. In addition, pupils were encouraged to use writing as a tool for thinking when attempting to comprehend difficult readings, to understand mathematical equations and to conduct research on topics of personal and social interest.

Literature Study consisted of both intensive and extensive reading. Children were encouraged to read widely and to collaborate with others in literature discussions. Storytelling, sketching what students thought stories meant, daily oral reading of stories, and process drama were integral parts of the reading program.

Math Time featured the use of several commercial programs that emphasized problem solving. While correct answers were important, of more importance was the fact that children were encouraged to find as many different solutions to problems as they could. In an effort to make math relevant, teachers and children also explored *math investigations* (Schmidt, 1997) which encouraged children to pursue topics of personal interest such as *How much would it cost to redecorate my room? What would it cost for my family to go to Disneyland?*

Inquiry blocks of time throughout the day provided opportunities to pursue questions of personal interest and to select topics of study within a whole class theme. Initially, students were provided inquiry booklets as organizational devices or tools that helped them gather, structure, present, and reflect on the information they were acquiring. Teachers used curricular invitations to develop research skills, to build background information, to expand interest, and to support collaboration and independence.

Although Writer s Workshop, Literature Study, Math Time, and Inquiry constituted the bulk of the curriculum,

CFI teachers and pupils also took part in a national gardening project that featured problem solving in science. In an effort to make the community an integral part of the school, CFI parents and interns offered Discovery Clubs once a week during the school day. This provided an opportunity for children to explore an area of interest. Discovery Clubs featured alternate ways of knowing and encompassed such diverse topics as karate, karaoke, camping, cooking, creative dramatics, dancing, gardening, carpentry and sports.

The on-site teacher education program offered undergraduate interns the opportunity to explore inquiry-based instruction by experiencing such a curriculum first. Often, what they tried out in their educology classes for teachers in preparation (for example, engaging in a literature discussion), became the focus of their work with students in the classrooms in which they worked. Because we wished to re-envision what teacher education and the educology of teaching ought to be, we assumed responsibility for all coursework handled by the School of Education. This included all of the various methods courses like reading and language arts, science, social studies, mathematics, art, music, special education, and multicultural education as well as foundations courses like the history and philosophy of education and educational psychology. We also took responsibility for all field experiences, student teaching, and several research seminars. For purposes of organization we thought of our new vision of teaching as a new discourse and saw conversation as a powerful tool through which to enter this discourse world.

We began our planning by thinking about the conversations that we wanted these preservice teachers to have (Applebee, 1997). The conversations we wanted to

nurture were presented as focused studies in which the disciplines (traditionally taught through methods courses) were perspectives embedded in conversations as they developed. The result was a series of focused studies in which we explored questions like *What does it mean to be literate?* and *What does a truly integrated focused study look like in practice?* Each focused study provided instructional engagements in strands that roughly paralleled the inquiry cycle (see Figure 2):

1. *Composing*: Exploring your voice and your current stance.
2. *Making Connections*: Reading professional literature in an attempt to understand both your own position and where others are coming from.
3. *Seminar*: Hearing the voices of teachers and educologists who are currently working.
4. *Research*: Planning and conducting mini-inquiry projects that can be done in the field while this unit is being taught.
5. *Multiple Sign Systems*: Using art, music, math, process drama, and other sign systems to gain new perspectives on the topic.
6. *Demonstration*: Purposefully putting our evolving personal theories of literacy and literacy learning to test by focusing on tension.
7. *New Curricular Directions*: Positioning ourselves anew in relation to a topic by developing and field-testing new curricular engagements and invitations.

Although both the elementary school faculty and the teacher education faculty were new to inquiry based education, each had volunteered to be involved in the program and had made a personal commitment to actively

explore what such a model might look like in practice. The two full-time university faculty and their graduate assistant were committed to helping teachers develop inquiry-based curriculum for children in their classrooms and the 6 full-time teachers making up the CFI staff were committed to working side-by-side as co-learners with the undergraduate. To this end, Tuesday and Thursday afternoons, each week, from 3:30 to 5 were devoted to professional development. It was here that teachers and interns formed themselves into study groups to explore topics of interest and worked together to plan curriculum and to share information on students, teaching, and classroom management. Several themes held interest due to particular concerns voiced by the faculty. Some of these themes became yearlong teacher-intern study group projects:

1. *How can teachers create and maintain a sense of community in an inner-city setting?*
2. *How can teachers manage and support a multi-age group of children from kindergarten through grade 5 as they pursue personal inquiry topics?*
3. *What are the best ways to organize and manage multi-age classrooms?*
4. *How should teachers address issues relating to spelling in process-centered, inquiry-based classrooms?*

Physical Context

Because it affects the study that we are reporting here, it is important that readers understand that the Center for Inquiry was a school within a school at the time this study was conducted. Physically, the CFI occupied one wing of School 92. Enrollment in the CFI was 120 pupils, whereas enrollment in School 92 was 623. Because central administration refused to assign a principal to a school of

fewer than 500 students, the CFI was officially administered by the building principal. Nonetheless, it is important to understand that the CFI was, so to speak, *in the face of traditional education on a daily basis*, and although CFI teachers were exempt from some district policies because of the school's special status, there was constant pressure to conform. Undergraduate interns often complained when CFI teachers appeared to give in to administrative pressures to skill and drill children for the up-coming Indiana State Test of Educational Performance (ISTEP) by conducting daily oral language activities and timed math tests, and by focusing on test-taking strategies. Reports such as these indicate that the theoretical match between the school curriculum and the teacher education curriculum was less than perfect. However, the match was philosophically much stronger than any others that we have encountered in the educological literature on teacher education.

Further, there is evidence that the CFI and the teacher education program had a great deal of effect on teachers in School 92. Over a five-year span, all 34 teachers in School 92 at some time participated in inservice programs offered by University faculty or CFI teachers. In part, this progress was possible because we used interns as an incentive. Teachers in School 92 were invited to participate in after-school professional development activities to begin to explore education as inquiry. In exchange for their participation and involvement, undergraduate interns were assigned to their classrooms to help them in the implementation of inquiry-based instruction. The net result of these placement policies and the way the CFI was positioned in the larger school meant that undergraduate interns had two types of field placements. Sometimes they worked in CFI classrooms where the instruction they were

seeing paralleled what they were being taught in their educology of teaching classes, and sometimes they worked in School 92 classrooms, where instruction often was diametrically opposed to what was being taught in their educology program. We were particularly interested in seeing how the interns negotiated the more traditional school classrooms during one of their student teaching experiences. Under these conditions, we can best determine to what extent *practice makes practice* and to what extent practice is mediated by educological theory.

Method: Studying the Relationship between Theory and Practice

Going into this study, we hypothesized that if preservice teachers were provided a seamless curriculum of theory and practice both in their field experiences and in their college coursework, then they would be more likely to be able to articulate and implement a coherent educology, i.e. a coherent theory about the educational process. Given the experience of a unified teacher education program, we wished to understand the relationship that exists between a person's ability to articulate educological theory and his or her ability to implement a program of instruction based on that theory. There were five phases to the research project reported here. Phases I, II, and III constituted the original study; phases IV and V were added to address questions which evolved from the original data.

Phase I involved observations of all interns during student teaching. Each intern was observed for a half day on three different occasions by three different researchers. In-depth field notes were taken during each observation and some teaching episodes were videotaped. Toward the end of student teaching, hour-long interviews were conducted

with selected students. Using these data sources, thick descriptions of the undergraduates' instructional behavior were constructed. Four of these descriptions were subsequently chosen as examples of the *stances* identified in Phase II and are included in this paper. Three of the reports (the ones for Holly, Janet and Anna) are rather straightforward summaries of our field notes and interviews. The fourth report (for Emily) summarizes a single event that occurred during the course of student teaching.

Phase II involved analyzing Phase I data using intercontextuality theory as an analytical framework (Beach, 1996). According to intercontextuality theory, people cannot truly understand the ideologies under-girding their current positions unless they also understand the counter-positions that are being denied. Not only do texts reside in context, but different contexts presuppose different discourses. Said differently, the tension that exists between alternate discourses means that the everyday participation in social events always involves the taking of a stance within an envisioned set of competing discourse worlds.

As a function of this analysis, we created a taxonomy of five different discourse worlds that we felt captured the different *stances* that undergraduate interns demonstrated in the teaching episodes we observed. In this analysis we defined *stance* as the positioning of oneself within a particular discourse world for purposes of justifying one's identity, behavior, and agenda.

Phase III involved interviewing all 16 undergraduate interns at the end of their third semester and asking them about *what mattered* most to them in their teacher education program. Interviews were audiotaped, transcribed, and analyzed. Working with the interns' statements and in light of our observations of their classroom behaviors, 20

uniquely different *what mattered* statements were created. The research team discussed how the various statements might be theoretically aligned with the different stances identified during Phase II, and eventually assigned a theoretical orientation to each statement. The statements were then typed on cards, and given to each student as a stack at the end of the teacher education program. Students were asked first to select 4 cards (out of the 20) that represented what they saw as most important, and then to justify their selection in terms of the three theoretical models that formed the foundation for the program (see Figures 1, 2, and 3). Given their selections and our pre-assignment of a theoretical orientation to each card, these data were studied to confirm or disconfirm our identification of *stance* during Phase II of data collection.

Phases IV and V address long-term effects. The four interns that we cite as exemplars in this study were observed two years later in an effort to answer questions about whether or not what we found in Phases I, II and III held. Phase V reports standardized testing data for children at the Center for Inquiry; this information is provided for individuals who see such data as the *bottom line*.

Phase I: Observational Data

Part of the educology of education-as-inquiry is the contention that teachers need to develop their own personal educology, i.e. their own personal theories about the educational process. Although interns were immersed in an education-as-inquiry educology in CFI classrooms and in their educology courses in their teacher education program, they also experienced alternatives to this educology in some of their field placements, in their work as substitute teachers in this and other school systems, and in their own

experiences as students. Although we know there is no one-to-one correspondence between teaching and learning, we assumed that by providing preservice teachers with a consistent educology, they would be stronger in both the sense of being more cognizant of their beliefs and of understanding how beliefs affect practice and vice versa.

The four students we describe below represent four distinct stances we saw repeated across interns as they positioned themselves as teachers. It is important to remember that with the exception of Emily, all of the interns we report on here were student teaching in a traditional (as opposed to CFI) classroom. These descriptions suggest that becoming a teacher is a complex event. The novice teacher must orchestrate the sense she has made of professional and personal experiences, as well as her personal sense of agency, in light of the constraints she believes to be operating in each teaching context.

Holly: "I just went by the curriculum in first grade."

During the first eight weeks of the semester Holly was assigned to student teach in a primary classroom in the traditional wing of the larger school. Holly described the cooperating teacher's classroom program as consisting of worksheets: *At first everything was worksheets. They'd do at least eight worksheets a day, and I did it for maybe the first week just to please her.* Even though Holly's cooperating teacher's program consisted largely of skill-driven worksheets, Holly was able to make adaptations to the classroom program as early as the second week of her student teaching. According to Holly, the initial changes to the schedule consisted of eliminating most of the worksheets and *integrating reading and writing*. By this, Holly meant that she added daily journals, independent reading, and listening centers to the language arts program. Later, Holly

was able to add several free-choice reading periods and to begin a home reading program. Holly was determined to have students take books home to read with their parents. Holly's supervising teacher argued that too many books would be lost if they allowed them to go home. In the end, Holly was able to negotiate this issue by getting parents to agree to pay for any books that might become lost. Since it only cost five dollars to replace a book, this plan was acceptable to both the parents and Holly's supervising teacher.

Holly continued to follow the cooperating teacher's spelling program and to use the little books that came with the district's basal reading program as the primary material for reading instruction. In an exit interview Holly shared how she was attempting to integrate more literature into the classroom. What Holly meant by this was that she had introduced story telling and several free-choice reading periods. During these free-choice times, children could select any of the extra books that came with the basal reading program to read independently. A second free-choice reading period consisted of silent sustained reading. Children selected a library book from those that Holly had collected and read this book by themselves or quietly with friends. Storytelling was a big hit in the classroom with both the children and Holly's supervising teacher. Several of the videotapes we collected show Holly telling stories with props and actively engaging students in the storytelling process themselves.

One of the videotapes we made of Holly teaching shows her working with a small reading group while other groups worked on reviewing new words that had been presented in other lessons, listened to a story on tape, and worked with a chart board to learn this week's new words. The students

with whom Holly was working were engaged in round-robin reading. Holly corrected every error on the spot, and appeared to be recording the errors in a notebook as well. It was not clear that these notes were organized in any way or that she intended to use them for planning future instruction. When children lost their place, Holly admonished them to pay attention and follow along. Holly's supervising teacher was a strong disciplinarian, one who could be heard raising her voice to children throughout the day. Holly, too, assumed this *I'm in control* stance by making sure that all the children were absolutely quiet prior to beginning an activity and that everyone worked through activities in a step-by-step fashion. Holly said that one of the things she had learned from student teaching was the need to make sure that children saw and respected her authority.

Holly said she thought it was crucial for children to feel free to share their opinions and interests and that these would be respected in the classroom. To this end, one of the first changes she made in the physical environment of the classroom was to remove all of the supervising teacher's Walt Disney posters and replace them with children's work. While Holly did not change the focus of instruction in the room, she did manage to accomplish what the supervising teacher wanted in a more benign and humane manner. Holly felt she was able to make these changes because they did not really alter the district's curriculum:

She [the cooperating teacher] said, these [pointing to the district's curriculum guide] are the things that will be on the test coming up. These are the things that they should know. Period. So, I just went by the curriculum for first grade, and made up my own lessons.

Holly did not attempt to change some program areas. During our observations, we saw Holly conduct what had become a ritualistic daily calendar activity in the school.

This involved identifying the date, the weather, and the number of days school had been in session. Holly also continued the cooperating teacher's skill-driven daily oral math and language activities, which had been mandated by the principal in preparation for district-wide standardized testing. Rather than copy sentences and problems from the board, Holly put these items on a worksheet that she handed out to the students. In this way she had a record of what the students had done as well as something to grade.

Holly said she felt she needed to follow the teacher's math program, but found ways to make the experiences more concrete for the students through the use of math manipulatives.

I used the math books, but I didn't always use the worksheets. I put problems on the board and gave them manipulatives... I did a lot of invitations with math. I took them to the exploration room and set up cards [activity centers].

Holly said she felt very constrained when it came to making changes in the curriculum because of testing:

Because of the testing, I felt that it really wasn't my position to say, "Well, I want to do this". Because she's frantic. This is her job on the line. So I told her, "I'm going to have to go under what you want to do during the first four weeks of my student teaching." She said that this is what they need to know-- this is what they need to cover.

When asked what she had learned from her experience as a student teacher, Holly said she had learned that testing can be stressful and a powerful deterrent to learning. She said she felt that if teachers had to prepare students for standardized testing, it would be better to do practice worksheets throughout the school year rather than to cram everything in at the last minute.

Janet: "I wish I had pushed myself more during student teaching." Janet selected a primary classroom in School 92 as the site in which to do her student teaching. She knew

this teacher and had worked in this classroom during her initial field experience. In her interview she shared how excited she was

It was real easy with her because we got along well when I was in here in the first of the year. It was real easy. I could talk with her about anything at all. That's why I'm so glad I was able to get in here because I don't think I could have asked for a better student teaching experience.

Janet described her cooperating teacher as caring about kids and as open to new things. To support her argument she cited the fact that her cooperating teacher had spent a lot of time visiting classrooms in the CFI and in other ways had expressed an interest in trying inquiry-based instruction.

During classroom visitations we had the opportunity to observe Janet conducting a daily calendar lesson very similar to Holly's, a spelling lesson, a basal reading lesson, a creative writing lesson, and an invitational session in which children used the arts to extend reading, math, and science activities. For the most part, Janet tried to set up activities in which children had choice. Her demeanor was quiet and respectful of the children in the room. Janet worked long hours each day getting materials ready for instruction; she spent time creating a pleasant and attractive classroom environment. Bulletin boards were teacher-created but contained books children had written following a predictable pattern. A number of tradebooks stood upright on the tops of the bookcases that lined one wall. Although not well marked, Janet had created a theater area, a writing center, and a library reading area in the classroom. Children had no trouble talking about any of these areas and what went on in them. Children's desks were arranged in groups of 4 to form workspaces.

One of the basal reading lessons which we observed consisted of the students reading a play aloud as a whole

group. When the students pronounced a word incorrectly, Janet asked them to go back and reread the word correctly. There were times in the lesson when Janet interrupted students to ask about the meaning of particular words. At the end of the lesson, Janet invited students to vote for the culminating activity they wanted to do. The students elected to do a play with puppets and act out the parts themselves. When we later asked Janet how the play activity went, she responded:

Oh, they loved it because we videotaped it. We played it back and they could have watched that thing fifty million times. They thought it was soooo wonderful. They wanted to share this tape with everybody.

During our interview, Janet explained the reading program she had in place. Each Monday she sent home a list of vocabulary words taken from the basal reading story that would be the focus of reading instruction for the week. Janet expected students to work on this story each day as well as complete a comprehension activity she took directly from the teacher's guide. On Fridays, students did something creative with the story like a group choral reading. In addition they often completed a comprehension activity that involved writing. On one of the days we visited, students wrote descriptions of the setting, each character in the story, and drew pictures showing what they thought their favorite character looked like. Often this work was displayed in the room. By the end of the semester, Janet was using every opportunity she had to integrate the arts into the basal reading program. For example, on one occasion she had students create piñatas in response to a story.

The spelling lesson which we observed Janet teaching involved the 'ou' sound. After introducing the sound and its

spelling, Janet shared the list of spelling words that students were to learn. After having the students read through the list of words, Janet asked them to use each word in a sentence and draw an accompanying picture. When we asked Janet how she selected the spelling words she responded:

She [the supervising teacher] has a book and I just go through and pick different sounds. Well, actually, at the beginning she gave me all the different sounds she wanted me to cover, and I just did them.

Janet followed a similar practice in making decisions about what to teach for language arts. Once again she reported that her supervising teacher had a language workbook which covered topics like sentence order and word tense (*was, were, is, are, have, had*, etc.). Curriculum decision making was a matter of covering each skill in the order they were presented in this guide.

For math, Janet followed district's guidelines, covering those concepts that were outlined in the math textbook that had been adopted by the district. Rather than use the workbook pages, Janet tried to enhance lessons by reading books, using manipulatives, and playing games that reinforced the skill being taught.

Despite the cooperating teacher's need to have grades (one reason Janet gave for why her cooperating teacher had not radically changed her program), Janet was able to make significant changes to the on-going curriculum by squeezing in free-choice reading time:

Sometimes we get some free-choice reading time squeezed in. I bring in a crate of library books every week. That was something new I asked if I could do. They took to it real well. They would buddy up, or just go anywhere in the room... I'm really surprised what they'd pick up in there.

By the end of the semester Janet was able to create what she called *group time* and work it into the schedule. During this period, students could write stories of their own choosing and explore different centers in the classroom that

focused on topics like science, math, social studies and health through music, art, and drama. Janet said that both she and her supervising teacher had a strong interest in using the arts to enhance and support learning. She maintained that her supervising teacher's interest in the arts had been initially triggered by visits to CFI classrooms.

During our interview, Janet shared how problematic it was to be teaching in a traditional classroom. The setting itself seemed to provide excuses for not doing more:

It was easy to get sucked in by the traditional way. How do I plan for all of those subjects? I don't have time to make everything inquiry-oriented because I don't have that much time to plan for all these subjects every single day.

At one point, we talked with Janet about how she might envision her classroom next year. At no time during this conversation did Janet mention textbook materials or skill-driven worksheets. Instead, she described a creative writing program and an exploration center where children could follow their own interests in science, social studies and health. Janet concluded that above all else, she didn't want learning to feel like it was *doing school*. After describing the program she envisioned for next year she asked:

Can I really pull this off? It's all up here [pointing to her head] and it's trying to get it. It seems like you should be able to do that -- making sure kids have the skills and are prepared for the test-- and still do it the way we want to do It — in a multiple-ways-of-knowing, inquiry-based fashion -- without having to do the drill and kill.

Our final interview ended in a conversation in which Janet discussed all of the various ways teachers might encourage students to read and write, how skills might be integrated into a holistic curriculum, and how the arts might be used to enhance the overall program. This line of thinking must have put Janet in a reflective mood as she concluded by saying, *I wished I had pushed myself more during student teaching.*

Anna: "Stand firm in your beliefs and fight for them. Anna selected a kindergarten in School 92 for her first student teaching assignment. She said that she liked this classroom because it reflected an environment where students' questions were valued and reflected in the classroom curriculum. Originally, Anna was to be placed in another kindergarten, but she lobbied for this classroom because of earlier visits.

I was in here in the very beginning... I love this classroom. When she started the year, it was bees -- their whole thematic unit. She wanted to teach them bees so they wouldn't be afraid of the bees that were in the room. Then, a lot of the pictures and videos were a lot to do with apples and how bees help apples. So, they went into apples.

Because of administrative pressure on teachers to do well on the district's standardized tests, Anna found that the curriculum had changed drastically when she arrive in January to start her student teaching. The classroom now included worksheets for developing letter recognition, flash cards, a teacher-generated word list, and a teacher-generated daily message – all carefully orchestrated around a letter of the week:

In the beginning [of the semester] it was this, this, and this. I was told I had letter "O". I had winter projects. I had snowmen projects. I had Martin Luther King projects. I mean it was just a whole list of everything, and it was like there was no way I could get to all these different themes I was supposed to be covering.

Anna's only hope, at that time, was that the cooperating teacher told her that she was open to learn new things, and if Anna had a better way to do things, then she should let her know. Anna took these comments as invitations to make changes. Worksheets were eliminated from the daily group time and instead assigned as homework. Anna combined the letter of the week with the theme of the week so that

there was more time in the day to include engagements of her choosing. She also selected weekly themes that both reflected student interest and met the letter of the week requirement. For example, when *Letter P Week* came around, Anna saw that children were already involved in puppets and so selected puppetry as the theme. Word lists became student-generated rather than teacher-generated. A word wall and games were introduced as a way to handle flash card drills. During one of our observations, we saw several students using the word wall as they wrote in their journals, another innovation Anna added to the classroom.

Other changes we observed included group time. Here students cycled through exploration centers. During the theme, Markets and Nutrition (*Letter M* and *Letter N Weeks*) -- students were working in a supermarket exploration center, a nurse's station, and running a classroom mail center. During *Letter R Week*, Anna created a classroom restaurant that was so popular, the 5th graders who visited the room for Buddy Reading gave up reading together to play restaurant.

Anna began each morning and afternoon by telling a story or reading a book which she enacted using simple props. Children were highly engaged and seemed to have internalized reading as inquiry in that they often interrupted the reading to ask questions and discuss what was happening. Often Anna complimented the children by saying that what they had asked was a very good question: *The very thing good readers do constantly*, she told one student. During group time, the props for various books were made available as an invitation for the children to choose. By the end of the semester Anna was well on her way to owning her own collection of children's books.

Over the course of the semester, Anna managed to integrate all of the curriculum areas. Exploration time included opportunities to conduct science experiences, explore nature and learn about the community. Children moved from one activity to another in an almost seamless fashion. Being highly organized, Anna developed a system whereby each curricular invitation had its own plastic box in which artifacts, books, and manipulatives could be stored for easy access. When we asked Anna how she was able to make changes in the classroom program she responded:

I think I pretty much just told her my reasoning behind the things I did. She's been very open to it. She'd always ask for clarification or more about it, or if I had a book about it, she'd ask me to bring it in. And I've always tried to start conversations by saying things like "Well, when we did this"... "I've seen this"... "When I've seen this done. That's always how I'd start out.

Anna claimed that as the semester progressed, not only her cooperating teacher, but also the other kindergarten teachers became more open to new ideas. Whenever we met Anna's cooperating teacher in the hallway, she always commented on how much she enjoyed having Anna in her classroom and how much she was learning from Anna. On one occasion, the school principal shared how Anna had taken on a leadership role at one of the staff meetings by suggesting that teachers invite parents to become inquirers with them in helping their children learn.

At the end of student teaching, Anna identified as one of her values the necessity of taking a critical stance towards teaching and what is being taught in schools. Anna's advice to others: *Stand firm in your beliefs and fight for them.*

Emily: The Nappy Hair Incident. Emily's first student teaching assignment was in Joe Turner's multiage fourth/fifth grade classroom. Joe is a veteran CFI teacher who can tolerate a good deal of chaos. He believes in

regular town meetings run by students and feels that if the meetings don't go well, then that's a learning opportunity. He also has been known to criticize other teachers on the staff for their lack of imagination. For example, when the issue of how to improve students' spelling came up at a joint staff meeting of CFI and School 92 teachers, he came back from the meeting shaking his head.

Mrs. So-and-so thinks all we have to do is put more pressure on kids and emphasize spelling tests. Can you believe it? Like more spelling is what these kids need! Their whole life is coming apart here in the inner city, and all we can think about is spelling and doing more of what didn't work in the first place! Some teachers are just never going to change with the times.

Joe's room was interesting in that he had a group of African-American girls (Emily called them a *clique*) that clearly ran the show. They were outspoken. They interrupted classmates to make points. They worked like beavers on inquiry projects that interested them, but did so in their own noisy fashion. Joe didn't mind. Emily did. Things came to a head when Emily took over the town meetings. Like Joe, she opened the town meeting by reading a book. Unlike Joe, she was bothered by the fact that the African-American girls fixed each other's hair as she read. *I find it disrespectful*, she said to us. *They disturb the others and I'm not having it! I'm not letting these girls turn this classroom into a glorified beauty parlor!* When she brought this issue up at the town meeting, students siding with her were interrupted before they got to make their case. Emily responded by saying, *Fine, if you are going to be disrespectful and not listen to each other, then I'm leaving. You can just run this town meeting on your own!* With this, she left the classroom. When she came back, the class was furious. Even the group of girls involved in fixing their hair thought she had a responsibility

to stay and keep order. *We didn't get anything settled, and you don't have a right to just walk out!* they complained.

Over the next several weeks the dispute raged on. Several of the African-American girls brought in articles they found on Internet to defend their right to fix each other's hair during town meetings. Holding a quote by Maya Angelou, one of the girls stated, *Black women have a special relationship with their hair, don t you know? It says so right here.* To Emily's credit, this incident caused her to rethink her position. Community-school relations became the urgent topic of her next personal inquiry project. She was particularly interested in learning about how community mores, which differed from school mores, were honored or ignored in other educational settings.

At the end of eight weeks, Emily was reassigned to another classroom to finish her student teaching, and Rita, another intern, took Emily's place. Having heard about *the hair problem* from Emily, she found the book *Nappy Hair* (Herron, 1997) and brought it in to read at her first town meeting. *Nappy Hair* is the story of an extended African-American family's picnic. A new baby makes her debut at the picnic and is declared by family members to have *the nappiest hair in the world*. The text consists of what members of the family said about the baby to each other at the backyard picnic. Each statement, *Brenda, you sure do got some nappy hair on your head*, is followed by the refrain, *Ain't it the truth? Don't cha know!* The book was a true hit. Two of the girls worked it up as a reader's theater and took their production to several of the other classrooms in the CFI. The videotape of their reading shows not only their adroitness with black English, but the audience's rapt attention -- including two white girls in the front row fixing their hair.

When we visited the classroom two weeks into Rita's student teaching, Kiera, one of the African American girls involved, whispered, *Psssst, Dr. Harste, come here*. When Jerry responded *Yes, what can I do for you?* Kiera stated that she had *a bone to pick* with him for moving Emily to another classroom. In disbelief, Jerry asked, *After you fought with her for the last 8 weeks, you now want her back?* Kiera replied coolly that they had never been fighting with Emily, but had simply been *helping her become a teacher*.

Phase II: Stance

Figure 4 is a chart outlining the five different stances we found interns to have taken according to our analyses of field data, any available videotapes and exit interviews. We began this analysis by looking through our field notes and listing for each student what we did and did not see happening in terms of change. We then attempted to develop a rationale, based on what interns had said, as to why these changes were or were not made. For example, we noted that Holly had changed her cooperating teacher's schedule after the first week by eliminating most of the worksheets and attempting to integrate reading and writing. We also noted that she appeared to be modeling these changes on what she saw going on in CFI classrooms but that she offered no theoretical explanation for making the changes. Holly did not have problems teaching the skill sequences that her supervising teacher had laid out for her other than she thought there were *more fun ways to teach* than what she had seen her supervising teacher using. She also said that she knew we wanted to see children working together and their work up in classrooms and that she therefore tried to include *more collaboration and student*

voices. When we analyzed Holly’s data in terms of why she had not made more changes, we found that Holly perceived her cooperating teacher to be under a good deal of pressure by the principal to have her students do well on the state standardized test. Because of this situation, Holly felt that she could not change things very much. At no time did she question the implicit assumption that was being made by both the teacher and the principal that the function of schooling was to do well on these tests. When questioned as to why she did not make more changes in the reading program, Holly indicated that *a lack of books and materials* had stopped her as well as her perception that the teacher *did not trust the kids to be responsible*.

Figure 4: Stances

		<---Wannabee	Wannabee---		
			>		
Stances by Dimension	Benevolent Skills	Selective Chameleon	House Decorator	Inquirer	Budding Social Reformer
Theoretical	Sees inquiry as a new way of teaching skills and making learning fun	Willing to explore inquiry as an occasional curricular activity within a discipline	Sees inquiry as a methodology that applies to some curricular area and not others	Uses inquiry as a vehicle for learning (both self and children)	Is exploring how to use inquiry to make institutional change
Reflective Practitioner	Is reluctant to submit own beliefs about schooling to critical reflection	Reflects narrowly. More interested in how they look than in children’s learning	Some evidence of using reflection as a tool for professional growth and educational critique	Reflects on student learning as a vehicle for understanding, generating and evaluating practice	Uses reflection for purposes of rethinking schooling

Curricular	Makes curricular decisions on the basis of pragmatics rather than theory	Sees some theoretical differences between alternate conceptions of curriculum but is confused about what these differences mean for practice	Sees what is good about inquiry but cannot envision a workable structure outside of the disciplines	Uses focused studies and children's questions as the starting points for instruction they initiate	Sets up environments for inquiry despite obvious constraints including administrative mandates and how the current curriculum has been organized
Social	Uses groups as a variation in routine. Is governed by the expectation of others. Wants to be seen as an authority figure	Uses groups cooperatively to more effectively reach objectives. Changes position depending on who is asking. Issues of management and control determine choices	Thinks that both cooperative learning and collaborative learning are the same. Is very concerned about expectation of authority figures	Uses others to outgrow self. Values collaboration for students and for self	Sees new possibilities for how various stakeholders might work together to improve education
World View	Thinks about instructional methodology as either working or not-working. Uses the arts as a variation in routine and for decoration	Selects methodology according to context but doesn't see how something done in someone else's classroom might be applicable here. Uses the arts as enrichment.	Selects methodology according to discipline but doesn't see how something done in reading might be applicable to science. Uses the arts as ways to support learning	Sees a variety of methodologies as instances of an inquiry curriculum. Uses the arts to help learners gain new perspectives	Sees education as inquiry as a philosophical stance that permeates everything that is done. Sees the arts as alternate literacies

By working with the data in this way, we discovered that interns held very different opinions about things even on the same subject. We determined, for example, that Holly saw inquiry as a new way of teaching skills and making learning fun, while Emily used inquiry as a vehicle for learning for both herself and her children. Figure 4 lays out five dimensions along which we found interns differing:

1. *Theoretical orientation*: The role inquiry plays in educational reform.
2. *Understanding the teacher as a reflective practitioner*: The role reflection plays in teaching.
3. *Understanding curriculum*: The relationship of theory and practice in curricular planning.
4. *Understanding the social nature of learning*: How social factors affect learning.
5. *World View*: The extent of their gaze or worldview.

In analyzing the data further, we found that various positions entailed alignment on several factors. For example, interns who *saw inquiry as a new way of teaching skills and making learning fun* also were *unwilling to submit their own beliefs about schooling to any critical reflection*. Not surprisingly, these interns were *also confused about what these [theory to practice] differences mean*, were *reluctant to share own beliefs*, and selected curricular activities in terms of *what makes me look good*. Figure 4 shows other such alignments.

Although four interns were deemed to be *Inquirers* by this analysis, what was surprising to us was the range of positions that interns took, given their many common experiences. From what we could tell, two interns failed to change any of their basic beliefs about schooling. For them,

inquiry was a more benevolent way to teach a skill curriculum, while making them look savvy and educologically up-to-date. In sharp contrast to these two interns were two other interns who in a sense not only took on an inquiry perspective, but went beyond the thinking of both the university and school faculty in terms of what an inquiry model of schooling might change. We named this set of interns *Budding School Reformers* and literally stood back in amazement as they pushed administrators and seasoned teachers into rethinking their notions of schooling. We named 8 of the interns *Wannabees* in the sense that they had internalized parts of an education-as-inquiry educology, but were unable to get their act together completely.

Overall, what these data suggest is that 14 out of the 16 interns in this program were able, at least on occasion and in some curricular areas, to think and operate theoretically when it came to classroom instruction. Eight interns could only do this for the reading and writing portion of their curriculum, and then sometimes only on occasion, though they did seem to have the ability to make their rooms appear as if they were doing inquiry-based instruction in other areas of the curriculum as well. At one point in this study we characterized 4 of these 8 interns, *House Decorators* and the additional 4 *Chameleons*, given their selective ability to say what they thought listeners wanted to hear. In the end we decided to combine these two categories into one category which we characterized as *Wannabees*, as this name seemed to capture the true state of things and focused on the positive progress interns were making in terms of implementing and managing an inquiry-based curriculum. Six of the 16 interns were able to operate in a theoretically consistent manner across all curriculum areas. Two of the 6 (the *Budding School Reformer* category) began to use inquiry as

a perspective for addressing aspects of schooling we had never managed to reform ourselves, like school-community relations and parent involvement.

Phase III: What Mattered

At a debriefing conference at the end of the third semester, interns were asked individually what they thought really mattered most about being in this program. Several interns asked if we wanted them to respond in terms of their work in schools or in terms of the teacher education program itself. Although we had anticipated using only one response per student, we abandoned this idea and allowed interns to list as many high priority reasons as they wished. Their responses were taped, transcribed, and analyzed for patterns. Figure 5 shows the interns' responses in order of frequency by names we thought captured the essence of what they were saying.

Figure 5: *Categories of Intern What-Matters Statements*

Learning how to conduct inquiry-based education	(N=9)
Being part of a progressive educational community	(N=6)
Feeling current and connected to the profession	(N=4)
Being field-based and actively involved in classrooms	(N=4)
Being treated as a professional	(N=3)
Having the kinds of opportunities that I think make me a better teacher	(N=3)
Learning how to set up environments that support literacy	(N=3)
Learning how to work with diversity and special learners	(N=2)
Experiencing first-hand what collaboration means	(N=2)
Having the opportunity to build meaningful relationships	(N=2)

A surface reading of Figure 5 would suggest that what mattered most to students was learning practical techniques related to implementing inquiry-based instruction. What is not self-evident, however, is that interns have already

educologically had to conceptualize education as inquiry in order for this to be their concern. This is probably more obvious when one envisions the *what-matters* categories that seem practically oriented as questions instead of categories. In this case, a question such as *How do you conduct inquiry-based education?* presupposes that education is best conceived educologically as a process of as inquiry (for further clarification of this point see Langer, 1980).

Another way to read Figure 5 is to look at how categories fall out in terms of size. *Learning how to conduct inquiry-based education* is the largest category, having 9 what-matters statements attached to it. The second largest category is *being part of a progressive educational community* with 6 statements. The third largest category is a tie, with both *feeling current and connected to the profession* and *being field-based and actively involved in classrooms* each having 4 statements. This pattern continues, suggesting that it mattered to interns that they were part of something bigger, namely, an educologically re-envisioning of both the theory and practice of public schools and teacher education (57 percent as opposed to 43 percent).

One of the things we noticed in working with intern statements on what mattered was that often there were subtle theoretical differences between statements, even when they dealt with the same topic. Using the range of intern responses as our cue, we developed 20 revised statements that we thought captured the theoretical differences we noted between statements as well as how various interns holding various stances perceived these differences. Needless to say, this process was fairly arbitrary, but important, as it forced us to explicate our own

beliefs as well as put them to the test. Figure 6 displays our predictions of how various theoretical statements align themselves with the 5 different stances that we initially identified interns as taking during Phase II research.

Figure 6: *Aligning Theoretical Statements by Stance*

Budding Social Reformer

Learning to take a critical stance towards teaching and what is being taught in schools.

Learning to work with others in an effort to create social change.

Being able to read, discuss, and become part of a progressive educational community.

Being in a school setting where a multiple ways of knowing curriculum is being advocated as supporting diversity and improving access for students not previously well served by schools.

Inquirer

Learning to build curriculum from children.

Being in a program that allows kids to explore their own research questions.

Being encouraged to reflect on a daily basis for purposes of developing personal theories of learning and improving classroom practice.

Experiencing collaboration as a way of learning for our students and us.

Home Decorator

Being able to experiment with the inquiry process during Friday groups and other times.

Experiencing a program where children's literature is used to supplement the curriculum.

Exploring multiple ways of knowing as tools for enriching the school program.

Being in a variety of classrooms where different organizational structures are modeled so that we can pick ones we like.

Selective Chameleon

Exploring what math, science, social studies and other curricular areas might look like when taught differently than when I was in school.
Being in a setting where you were allowed to try out ideas from a wide variety of sources (e.g. Instructor magazine, fellow students, college professors, workshops, etc.)
Learning to use choice to open-up options within a prescribed curriculum.
Having the opportunity to take new ideas and work with them until they work.

Benevolent Skills

Learning to set up and make curricula more acceptable by giving children choice.
Developing new ways to teach skills while making learning enjoyable.
Learning how to manage a classroom, maintain effective discipline, and keep order.
Learning how to include the arts (storytelling, art, music, drama, and movement) within the expected curriculum.

These statements were typed on 3x5 cards and put into a packet that was given to interns at the end of their second student teaching experience. Interns were asked to look through these cards and identify 4 which they felt best represented what they saw as important about the program from their own perspective. Figure 7 lists in order of frequency of selection those statements that were the most often chosen.

What these data show is that on the whole, interns selected theoretical statements from the *Inquirer* stance more frequently than they did other stances. This set of data then reconfirms the conclusions that we reached in Phase II

research that 16 out of the 18 interns had adopted (at least in part) an inquiry perspective.

Figure 7:
Frequently Selected Theoretical Statements by Stance

Being encouraged to reflect on a daily basis for purposes of developing personal theories of learning and improving classroom practice (N=12).	Inquirer
Learning to build curriculum from children (N=10).	Inquirer
Experiencing collaboration as a way of learning for our students and us (N=8).	Inquirer
Being in a program that allows kids to explore their own research questions (N=6).	Inquirer
Experiencing a program where children's literature is used to supplement the curriculum (N=6).	Wannabee (Home Decorator)
Exploring multiple ways of knowing as tools for enriching the school program (N=6).	Wannabee (Home Decorator)

To further explore these data, Figure 8 lays out the frequency of theoretical statements selected by stance against what we predicted given our identification of interns' stances in Phase II. If these data fell out as we predicted, we should expect that those interns we identified as *Budding Social Reformers* would choose theoretical statements we identified with this category, interns we identified as *Inquirers* would choose theoretical statements we identified with that category and so on. Figure 8 compares predictions of this nature against what really

happened when interns were asked to identify which statements they saw as particularly important.

Figure 8:
Selection of Theoretical Statements (Prediction vs. Reality)

Stance (Number of interns we identified holding this stance during Phase II Research)	Total number of predicted hits in each category against actual number of hits. (64=total number of statements)	% of statements which should have been selected given our prediction from Phase II research results	% of statements which actually fell in these cells	% of miss
Budding Social Reformer (N=2)	8 predicted 12 actual	12.5	19.0	Plus 6.5
Inquirer (N=4)	16 predicted 27 actual	25.0	41.0	Plus 16.0
Home Decorator (N=4)	16 predicted 10 actual	25.0	16.0	Minus 9.0
Selective (N=4) Chameleon	16 predicted 8 actual	25.0	13.0	Minus 12.0
Benevolent Skills (N=2)	8 predicted 7 actual	12.5	11.0	Plus 1.5

Because we identified 4 interns as holding the *Inquirer* stance during Phase II research, we predicted that 16 inquiry statements would show up (4 interns × 4 inquiry statements = 16). In reality, 27 inquiry statements were selected, suggesting that overall, interns understood the rhetoric of inquiry even if they were not able to convince us that they could practice it when we observed them in the classroom.

If one were to predict an intern's stance on the basis of the data in Figure 8, one would assume that by far the most frequent stance interns would have assumed in their student teaching would have been that of *Inquirer*. The second most frequent set of statements selected were those of *Budding Social Reformer*. Given Phase II observations of interns' behavior in classrooms, these predictions did not turn out to be accurate. Yet, to the extent that articulation precedes action, these results have to be read positively. While they do not match the reality of the moment, they bode well for the future. When read as a set of ideals, these statements can be seen as an image towards which interns can grow and against which they can self-correct.

We were also interested in finding out how well interns were able to articulate their choice of statements in terms of the educological models which provided the foundation for both the teacher education and CFI programs. In order to keep this component of the study manageable, one student was identified for each stance and the rationales for each of the 4 statements selected by these representative interns were compiled. To judge which rationale statements were the most articulate, we enlisted the help of 10 university instructors who were exploring an inquiry-based approach to teacher education in their own teaching. Specifically we asked raters to identify the most articulate rationale statements and, conversely, the least articulate rationale statements on the list. Six (of the 16) rationale statements were identified as being highly articulate; each received 8 or more votes. Parenthetical notations after the statements identify which theoretical model the student was talking about in the rationale as well as the stance of the student relative to findings in Phase II of the study.

1. *Democracy and diversity are respected when we value each child's personal inquiry questions and we use a variety of disciplines and sign systems to gain perspective and to question who benefits by what we believe (Figure 1, Education as Democracy; Budding Social Reformer).*
2. *It is important to take a critical stance; to critique what is included in the curriculum in terms of relevance and who benefits. Stand firm for your beliefs and fight for them. Questioning and investigating are focal points in inquiry. (Figure 1, Education as Democracy; Budding Social Reformer).*
3. *Each child comes to school with a vast amount of knowledge. It is the teacher's responsibility to respect and to build from this knowledge base. If a teacher can find a child's interests, then he or she can use these interests to excite the child and in this fashion support growth, learning, self-esteem, understanding, and the asking of new questions (Figure 2, The Inquiry Cycle; Inquirer).*
4. *The learning process is endless when children develop their own research questions. The cycle represents endless learning to me. When children are really interested in, or immersed in, a particular research question they take ownership of it. New questions surface which allow for further learning and investigating (Figure 2, The Inquiry Cycle; Inquirer).*
5. *Multiple ways of knowing are not extras. They are an integral part and basis of the curriculum. Multiple ways of knowing are crucial to being able*

to support and facilitate all students learning (Figure 3, Multiple Ways of Knowing; Inquirer)

6. *Bringing out different meanings from other ways of knowing such as music, art, dance, and process drama expands one's knowledge and provides opportunities which enhance learning. (Figure 3, Multiple Ways of Knowing; Budding Social Reformer).*

Inquirers and/or Budding Social Reformers made all 6 of the statements identified as *articulate* by the raters. Although it was optional, 6 of the 10 raters identified these three statements as *least articulate*:

1. *Kids making the decisions increases interest and learning by a multitude. (Figure 2, The Inquiry Cycle; Selective Chameleon)*
2. *Both teachers and students are valuable resources. It is silly not to use them! (Figure 2, The Inquiry Cycle; Benevolent Skills)*
3. *I like the option of being able to experiment and not just stick to a single textbook or a single way of presenting information. (Figure 3, Multiple Ways of Knowing; House Decorator).*

It is important to note that Budding Social Reformers and Inquirers made all 6 of the most articulate statements, and interns in other categories made all 3 of the *least articulate* rationale statements. These data lend support to the hypothesis that interns who were able to articulate what they were doing educologically had also been identified as demonstrating more educologically consistent ways of interacting with children in classrooms.

**Discussion: What Phases I, II, and III
Contribute To Our Understanding of the
Relationship between Theory and Practice in
Teacher Education**

We found stance to be a powerful way of looking at how our students have both been positioned and have positioned ourselves within the fund of knowledge of educology and within the processes of education and literacy. Unlike most concepts, stance is a concept that speaks to relationships. Just as one cannot understand teaching without understanding learning, so too, one cannot understand identity without understanding the tension that exists between discourse worlds. What follows is a series of statements we think we can conclude as a result of this study and are reasons for reaching these conclusions.

Teachers who can educologically justify their practice are much more likely to accomplish change. While several phases of this research directly address this issue, Phase III data make it clear that interns who were the most successful in making change in their classrooms were also the most articulate about why this change was educologically important. Anna is a clear case. Living within the constraints of flash cards, Letter-A day routines and a prescribed set of topics, she was able to build curriculum from the inquiry questions of learners and offer students real choices. She was also able to make learning active, highlight reading, writing, and other ways of knowing, and help the teachers with whom she was working to become more educologically consistent in their own practice.

The greater the understanding of the relationship between educological theory and educational practice, the more seamless the curriculum. One of the significant differences between Anna and Janet, for example, was that

Anna was able to organize curriculum around themes as opposed to disciplines. Under the umbrella of a theme, Anna's classroom flowed from activity to activity whereas Janet's was forever stopping and starting. Anna's children moved within an overarching theme; Janet's children move from subject to subject. The corollary of this conclusion was stated by Janet, and that was that the less the understanding, the more likely one is to get *sucked into doing school as it has always been done*. Both Janet and Holly seem to be clear examples.

What may not be so obvious is that this tenet is as true for teachers as it is teacher educators. With new understanding such as this study provides, the teacher education program reported on here continues to grow. As a result of this study we are experimenting with ways to support the development of a critical, multiple ways of knowing, inquiry-based curriculum (Leland, Harste, Ociepka, Lewison, & Vasquez, 1999; Leland & Harste, 1999; Harste, Vasquez, Lewison, Breau, Leland, & Ociepka, 2000). We already have a new cohort of interns student teaching over two semesters.

Educological theory serves both as a vision and as a self-correcting device in the educational process. Interns who were effective change agents used educological theory as a vision of *what might be*. It was this vision that drove them to find ways to align educational practice. Other interns either let the matter of permission stop them or did not seek permission because of their lack of educological vision. Janet said that experiencing first-hand what a multiple ways of knowing curriculum could do for children caused her to wish that she had done more. Suddenly, she could educologically envision a different educational world. Janet, then, shows how educological theory, or one's

educological envisioning of *what educationally might be*, can serve as a self-correcting device in the educational process. Comparing *what is* to *what might be* creates a new agenda.

While Holly did make some changes in her supervising teacher's classroom, many of the changes were superficial. Her explanation that she took down the supervising teacher's Walt Disney posters to put up children's work because she knew this is what we, her instructors, would like to see, is professionally unacceptable as she is neither taking educological nor personal responsibility for her teaching decisions. While Holly has rhetoric for why she does things, it is not anchored in an educological understanding of the relationship between educological theory and educational practice, but in political pragmatics, where instructors, as a general rule, hold arbitrary power over undergraduates. Without an educological rationale for what she is doing, Holly is extremely vulnerable to the next expert or next new idea, no matter how misguided either might be.

Tensions between educological theory and educational practice drive the learning process. Two of the newest insights in the educology of language education are the notions that there is not a single literacy but *multiple literacies* (Street, 1995) and that we are socially constructed as particular types of literate beings (Luke & Freebody, 1997). These data show that few of the interns studied took on a critical literacy perspective or went as far as we would have liked them to go in terms of analyzing the systems of meaning that exist in society to position them as literate adults. (For more on the relationship between critical perspectives and these interns, see Leland, Harste, & Youssef, 1997). Not surprisingly, we found few if any

examples in this data of interns working to help students understand how literacy is positioning them. Such a curricular focus is not so much a matter of front-loading the curriculum as it is having a critical perspective and using what opportunities naturally arise in the classroom to support the interrogation of beliefs and the taking of new social action (Vasquez, 1999, 2000).

The Nappy Hair Incident is representative of how the concept of stance and the taking of a critical perspective might advance a new vision of teacher education. There are, we believe, three lessons to be learned about the relationship of educological theory and educational practice in teacher education from this incident. First, educological theory and educational practice are constantly evolving. Even when our educological models of the educational process represent the best that we currently know, there is more to be learned and more that we need to address. For this reason our models of education should be both open and constantly under review. Critical literacy does not make invalid an inquiry-based model of education, but rather highlights an aspect of the learning cycle that has not received the attention it must receive if we are to understand learning in its most powerful sense. Whatever educological conceptions of education we use to anchor our programs of teacher education, they need to be open to change over time. Models, like education, are always in the making. Second, learning is signaled by a change in one's educological conception of educational models as well as in one's educational practice in the teaching and learning process. Although Emily began in one place, the evidence indicates that she grew and began to think about classroom management in a new way. Practically, as her educological conceptual model changed so did her educational practice.

She became less confrontational and began to position herself as a learner. Third, Emily's positioning of herself as an inquirer allowed her a self-correction strategy. Through inquiry, she began to demonstrate to the students that she, too, was a learner. The problem with this example, from a critical literacy standpoint, is that it doesn't go far enough -- which brings us to several other important conclusions that bear on this event.

Time seriously constrains the development of strong relationships between sound educological theory and sound educational practice. Part of what is problematic with teacher education is our inability to be as flexible with time as we need to be. If Emily had been given more time in Joe's classroom, she probably would have been able to engage the children in a very different conversation. Moving to a new placement for the second half of student teaching meant that she did not have an opportunity to do this. The result is that the grounding for a critical literacy agenda was set, but not enacted. No social action was taken. In terms of theory-practice relationships, what we are left with is educological theory but no educational practice; the result is a less satisfactory educative experience than might have been.

One can only guess how more time would have affected Janet. Although she was still thinking about curriculum in terms of disciplines and still seeing the arts more as enrichment than as an integral part of the learning process, both she and her cooperating teacher were beginning to move. Like young children learning literacy (Harste, Woodward, & Burke, 1984), Janet and her cooperating teacher were just beginning to take the risk of exploring the world of possibilities that an expanded definition of literacy affords.

Practical concerns like management and control are also artifacts of time and relationships. Underlying the interns' ongoing concerns about implementing an inquiry-based curriculum were the twin issues of management and control. What these data suggest are that in order for interns to accept fully an educological model of education-as-inquiry, they needed to be able to envision educologically how such a model might be implemented by them in a classroom complete with whatever nightmarish non-support they might encounter. Over and over again, it became clear that for interns who did not see classroom behavior as negotiated, notions of success rested on whether or not students behaved in a manner that was acceptable to them and to what they thought significant others, like supervising teachers and the school principal, expected. At the core of this egotism was the matter of control. Whereas an education-as-inquiry model of education is built on the premise that children ought to be in charge of their own learning and that education ought to build off the inquiry questions of learners, the model assumes that teachers will be willing to negotiate curriculum. Interns identified as holding the Benevolent Skills, Selective Chameleon and Home Decorator stances did not understand this educological theory and educational practice relationship. In their own mind's eye, their identity rested on their ability to maintain order, not on their ability to create an educational environment which supported learners taking charge of their own learning. Again, it was political pragmatics over educological theoretical conceptions of *what might be*. Their focus was on themselves rather than on relationships between teaching and learning and educological theory and educational practice.

The issue of management and control is another artifact, then, of time and relationship. Not having enough time to develop informed and meaningful relationships with either their cooperating teachers or with the students in the class means that issues of management and control cannot be negotiated. This, too, in part is Emily's problem. Despite our best efforts at educologically re-envisioning teacher education, we didn't go far enough. By concentrating two student teaching placements in one semester, we did not create an environment within which interns could develop the kind of relationships that could truly change things. As it stands right now, interns experience only a mild dose of relationship building. Using the metaphor of a literacy tool kit, management is really a matter of deciding which organizational tools work best from context to context. How well these tools work depends on how their use has been negotiated, and this in large part relies on the kinds of relationships that have been constructed.

The number of constraints which interns found theoretically problematic acted as barometers of their understanding of the relationship between educological theory and educational practice. To a large degree, interns in this study faced many of the same constraints. They all worked in a building where the principal wanted teachers to skill and drill kids in preparation for the upcoming standardized state test. They all worked with supervising teachers who were positioned to understand that their children's test scores would be seen as an evaluation of themselves and their teaching competency. They all had to acknowledge the district-wide basal curriculum in reading, mathematics, spelling, and the English language arts. But in spite of the many constraints they shared, they ended up doing very different things. In analyzing these data, one

pattern we identified was that when practices educologically bothered any of the interns, they managed to make change. This finding was true for all interns, with the pattern holding across all stances, from Budding Social Reformers to Benevolent Skills. What separated Benevolent Skills from Budding Social Reformers was the number of things that did not educologically bother them.

The more constraints interns saw as to why they could not make changes, the less likely they were to have an understanding of relationships between educological theory and educational practice. Anna, you will recall, was bothered by almost all of the decisions that had been implemented since her last visit to this classroom. Holly on the other hand had many of the same things happening in her classroom but was not educologically bothered by them. Rather than use educology as a point of critique, she turned to pragmatics and justified not making any real changes because of the physical constraints like a demanding principal, a reluctant supervising teacher, and district policy. Janet, too, felt constrained in her attempts to implement an inquiry-based program by the number of disciplines she had to include. Her perception of a set of disciplines as a constraint indicates that she was still putting disciplines at the center of curriculum. By identifying constraints, we have a window on what aspect Janet did not understand of the relationship between educological theory and educational practice.

Because the educational process is theory driven all the way down, educators, and especially educators of educology, have a particular obligation to make their educological theories explicit. This study lends credence to the notion that teachers are more effective when their classroom practices match the educological theories which

they hold on literacy, learning, curriculum and schooling. It further lends credence to the notion that it is the responsibility of educologists within teacher education programs to support teachers-in-preparation in developing internally consistent educological models of theory for guiding sound educational practice.

Many teacher educators might question whether we ought to be giving teachers educological theories or whether it is the responsibility of each professional teacher to develop his or her own educology. They might argue that in teacher education, we ought to expose teachers to as many educological theories as possible and let each prospective teacher decide for him or herself which aspects of educology to espouse. While these are different perspectives on the issue of educological theory in teacher education, it is important to note that each of these views assume that educological theory is important. Our earlier research on the teaching of reading (Harste & Burke, 1977; DeFord, 1978) has shown that teachers consistently operate out of an educological theory of reading whether they are conscious of it or not. We suspect the same holds for teaching more generally and that what is true for teachers is also true for teacher educators.

The real issue is how explicit we want to make our educological theories. This study supports the notion that teacher educators, and especially teachers of educology within teacher education programs, ought to be explicit about their educological theories of literacy, learning, curriculum, and schooling as well as provide settings in their teacher education classrooms and in the public schools where prospective teachers can see and experience such educological theories guiding educational action.

Some would see this approach to teacher education as biased, yet as professionals, we would argue that educological theories and educational practices we advocate represent the best of what is currently known. As responsible teacher educators and teachers of educology, we are asking prospective teachers to do what we do; namely, to plan instruction in light of the best information available. To see teaching and teacher education as inquiry is to understand that in addition to taking an educological stance, one also has to assume that some part of one's current educological theory is wrong. The trick is to find out which one it is. *Education*, some wag once said, *is like constantly rebuilding your ship while sailing the high seas.*

This study demonstrates the pervasive and powerful role that educological theory plays in teacher education. To the degree that prospective teachers were cognizant of the differences between what they believed about teaching and learning and what actually took place during their or their supervising teacher's instruction, practice did not generate practice. In fact, there is ample evidence that for teachers aware of the difference between educological theory and educational practice, educological theory served as an anchor, a self-renewing strategy, and a point of reflection.

**Aligning Educational Practice with
Educological Theory is Never Easy,
But Worthwhile Nevertheless.**

This study shows that aligning educational practice with educological theory in teacher education, while worth the effort, is not easy. Not only did we have to create our own public school, but we had to create our own teacher education program. Further, what may not be self-evident is that three of us devoted two full days to this program each

week, teaching college classes on site as well as supervising students in public school classrooms. Needless to say, this calls for a level of dedication and commitment to teacher education not typical of faculties in schools of education (i.e. schools of educology) at major universities. Probably one of the reasons schools of education have trouble preparing quality teachers is not that there are not faculty willing to put forth this effort, but rather that the university neither values nor takes the job of teacher education very seriously.

Beyond long-term, serious commitments between university and school, other things in this study inhibited the alignment of educological theory and educational practice. As is evident in the case study reports, students often found the instructional materials they were given to work with less than ideal. Instructional materials, whether in reading or science, were educologically at odds with what prospective teachers had come to believe about language and learning. Classroom schedules were also an issue. Interns constantly complained that they were not given the time to develop the lessons they wanted to teach in the manner in which they wished to teach them because of time constraints imposed on them by classroom schedules and district mandates. Then too, as is evident in this data, district wide testing not only limited what could be done at certain times during the year, but violated what students had been taught about quality programs of assessment and evaluation. We came to see these inhibitors as social and political constraints in that school policies beyond the classroom and our program affected our work as teacher educators and teachers of educology.

Other inhibitors were psychological, but just as real. Positioning teachers and prospective teachers as co-learners

proved difficult. Try as we might, old models of how classroom teachers and teachers in training were to work together prevailed. Interns were as bad at positioning themselves as were the classroom teachers. Both groups were prone to position the classroom teacher in a super ordinate position and the intern in a subordinate position, when it was exactly this hierarchal arrangement that the education-as-inquiry model of education was attempting to disrupt.

As is evident in the case study of Emily, interns' perceptions of schooling, of community, and of culture affect what behaviors are and are not valued. In this regard, it is interesting to note Kiera's comment to me that she was not fighting with Emily, but rather helping her become a teacher. Kiera, too, has an educological theory about education and specifically her role in the preparation of teachers. While her stance is not one that has often been considered in the literature on teacher education, it is clear that it should be if we wish to understand the complexity of teacher preparation. While it may not be so evident in the data we have presented, over and over again interns were positioned by the perception children had of teachers. The fact that students wanted things done the way their regular teacher did them is a constraint unless you envision a classroom in which such decisions are not arbitrary but negotiable.

Phase IV: Two Year Follow-Up

In presenting this study at various research conferences (Harste, Leland & Schmidt, 1997, 1999), the one question audiences invariably ask is, *Have you gone to visit the graduates of your program to see if what you found still holds?*

Phase IV, while not part of our original design, was a two-year follow-up. Specifically, the 4 interns used as exemplars in this paper during the reporting of Phase I of the study were located and observed teaching 2 years later. Although only one classroom observation was made for each teacher, the data collected begin to address this question of sustainability. As was done during Phase I, a thick description of each former intern's teaching was made after an observation and interview by one of the authors. Notes were condensed and summarized to provide a portrait of the classroom, and summaries were returned to the teachers for comment and correction. As a research team, we studied this set of data to see to what degree we might answer the question as to whether or not the effects reported in Phases I, II, and III held over time.

Holly: Three Years Later. Since graduating from our teacher education program in 1996, Holly has taught in two private Christian schools. Her first position (1-year) was teaching 5th grade on a half-day schedule. Her current position is as a 2nd grade teacher. During the interview, Holly discussed her current teaching position and some of her concerns as a teacher in this school. Her biggest complaint was that the required curriculum (textbooks) and the philosophy of the principal did not support her ideas and desires "to teach with a whole language method" as she had learned to do in her undergraduate program. *The principal really expects us to use the phonics book and the kids must know their sounds,"* she said. *This really frustrates me. I can't use the whole language method the way I would like to because I need to use the required materials.* She also mentioned that her instructional assistant was much harder on the children than she would be and that this was often a problem as they worked in the room together.

Holly had 14 second graders (all African-American) in a very large and airy classroom. The desks were placed side by side in pairs, allowing lots of space for the students to move around. There was a gathering area by the calendar in the front of the room and a large crescent-shaped table used for reading groups. The room was quite colorful with charts to designate helpers and track behavior, a word wall, cursive alphabet letters, and a number of posters. However, there was a noticeable lack of children's work on display. When we asked Holly about this, she replied that she had forgotten about putting up student work and would get around to displaying their papers soon.

As soon as the children had put away their lunch boxes and jackets; Holly instructed them to prepare for D.E.A.R. time. The children scrambled around finding their reading materials and then looked for suitable places to sit and read. Some chose to read with partners; others were reading alone. Once they were settled, Holly and her assistant each took one child aside and began to have these children read from the Dolch word list. While each child identified the words on the list, the teachers kept track of words that were known and unknown. We found out later that all primary students in this school are required by the principal to know all the words on this list. Proficiency with the Dolch words was how Holly determined the make-up of the three reading groups that were currently operating in her classroom. Later on in our discussion of her reading program, Holly asked me if we thought the child she was testing that day might be dyslexic because she was misplacing vowel letters (e.g. smell for small). We suggested it might just be the child's dialect, and Holly agreed that that was possible and that she would look for more evidence regarding the child's dialect.

As soon as Holly had finished testing the child with the Dolch word list, she got up and began to go around the room asking individual children about what they were reading that day. After about 20 minutes, the students were asked to return to their desks. At this point the children were invited to share anything that they had read with the whole group. Three of the boys gave a vivid account of the snake they had read about and two of the girls read a short poem that they had found. During the entire D.E.A.R. time and sharing experience, the students were very engaged and respectful of the quiet reading time and the ideas that were shared.

After the students had put away their self-selected books from D.E.A.R. time, Holly called Tonya's group, which consisted of 3 girls and 1 boy, to the reading table while the rest of the class went to the calendar area with the instructional assistant. While the instructional assistant discussed the days and dates on the calendar and then did a math activity regarding the use of coins, Holly led the reading group in a round robin reading of a story from the basal text. During this oral reading activity, the children were asked to read a page aloud, discuss what they read, and identify specific vocabulary words. Holly demonstrated how to use a dictionary to help the group define a word that was new to them. At the end of the group session, Holly gave each child a sheet of drawing paper and asked the students to retell the story in sequence by drawing eight pictures and writing sentences to match. This work was to be done individually at their desks or for homework. During the next 10 minutes Holly talked about the two other reading groups that she had worked with in the morning. She said that each group was using a different text, but all the groups operated in the same way as the group we observed.

Janet: Two Years Later. Janet now teaches first grade at a public elementary school in Indianapolis. Her school is a Title 1, urban, inner-city school housing a student population consisting of largely African-American children (92 percent). Because of her interest, Janet had volunteered to take the low reading group, which was made up of 13 children from all three of the first grades in the school.

There were four distinct instructional segments in the lesson we observed. When we arrived, Janet was sitting with the children in the carpeted area playing the harpsichord. While Janet provided the accompaniment, her teaching assistant held up a book with the lyrics to *Down by the Bay*, and the children gathered around singing the song. As the children sang along, they used visual clues in the book to predict which animal would be the next one to stop *Down by the Bay*.

Following the singing, students participated in the word identification game. Once the boys' team had correctly identified ten flashcard words in a row, the girls took their turn. Although no dialectical pronunciations of words were allowed (*Say it correctly!*), children were completely engaged in the competition and helped each other identify words quickly and correctly.

The third phase of the lesson involved oral reading of a basal story. Children were asked to use the table of contents to find the page number of the 5-page chapter story they were to read orally and in unison during this session. After all of the children had found the correct page (*You'll be ready to read when your book is open and your finger is on the first word*), Janet led the children in the reading, making sure that everyone put some vocal inflection into their voices. When they reached the end of the chapter, the books

were passed back to Janet without any discussion of the content or meaning they made of the text.

As soon as the books were collected, Janet stood up and moved a small easel into place facing the group still seated at the carpet. Attached to the easel was a large sheet of paper with three columns on it. Children were to place three strips of paper containing sentences from the story they just read in correct order. They were to identify which part belonged at the beginning, middle, or end of the story. When students finished this activity, they were sent back to their homerooms. As students left Janet commented, *This is the first time we've talked about beginning-middle-end, but we'll be talking much more about it.*

Throughout the lesson, behavior was a challenge. In preparation for the word identification activity, two children were dismissed from the group for walking around rather than sitting in place and waiting patiently on the carpet. Although they were asked to rejoin the group later, three other children were told to take their seats during the beginning-middle-end sequencing activity.

Anna: Two Years Later. We found Anna teaching first grade at the same public elementary school where she had done her teacher education with us. At the time of the observation, she had 19 children in her class, 16 of whom were African-Americans. During her interview Anna said:

The most important thing I learned in the cohort program was to view myself as a life-long learner. I continually assess my philosophies, successes, failures, and future goals. I always ask myself, *What went well? What needs to be changed?* I try to provide every learner with what they need to be successful. I teach my children to use several cueing systems when confronting an unfamiliar word. Trade books, phonics, shared reading, guided reading, journaling, literature and author studies all have a place in

my classroom. Every child is unique and it is my duty to include many different strategies to accommodate all types of learners.

During the period of observation, Anna worked with two small groups and then with the entire class on reading. Her instruction was peppered with questions: *Who has a discovery about this word? What did you discover about this character? What are you still wondering about?*

While meeting with small groups of children to talk about the trade books they were reading, Anna encouraged children to rely on their own resources for figuring out new words. She consistently refocused any and all *what-is-this-word* questions in terms of what strategies they might use to figure it out. Students moved easily from one strategy to another. When sounding out a word did not work for one child, she skipped it and read on, and then went back and filled in the missing word. *Did you guys notice what Tequila just did?* Anna stopped and invited the group to analyze a child's successful attempt to figure out a word. When someone suggested she looked at the pictures to figure out the word, Anna responded, *Good observation, she used that picture to help her predict what would be on the page. That strategy worked for her, didn't it?*

As part of her instruction, Anna included work on phonics as well as on the syntactic and semantic cueing systems of language. One group worked with word builder tiles, on the daily message, a cloze activity that required the children to use their knowledge of semantics and syntax to figure out a missing word in this sentence: *We will take another _____ today.*

At another point during the observation, children were invited to meet with Anna for literature discussions. While some groups were reading the same book, others each had a different book from a text set that Anna had created around topics of interest. Anna began each literature discussion

with an invitation to *talk about your book*. Later children took turns reading their favorite part aloud. Anna collected assessment data throughout her literacy period. She took continuous notes as children built words with tiles, read aloud, and talked about their stories. At various points throughout the lesson, Anna encouraged children to reflect upon how well they had done and whether they needed to choose a more or less difficult book next time.

Emily: Two Years Later. At the time of our follow up, Emily was teaching sixth grade social studies at a public middle school in an Indianapolis suburb. She worked with a team of three other teachers who were responsible for mathematics, science, and language arts. Emily taught four periods each day to a largely Caucasian population (20 percent African-American). Over the course of any given day, she worked with over 100 students. At the time of our observation, Emily was teaching a unit on Mexico. As students entered the classroom they looked to the overhead where Emily had written the following directions:

1. Find a KWL chart in your basket. [KWL standing for *What I Already Know; What I Want to Know; What I Learned*].
2. List 10 things you know about Mexico in column 1.
3. We will share in five minutes.

Students knew to look up at the overhead as they came into class and needed no further directions to get to work. As they conferred with each other and recorded ideas on their individual KWL charts, Emily took attendance. After five minutes Emily asked students to share what they already knew about Mexico. During a post interview Emily explained why so little direction was needed:

With [content areas, like] social studies, they're so used to reading the chapter and then answering the questions at the end of the chapter that it is hard to break them of the habit. This time we did a mural project where I gave them the textbook and asked them to pick out interesting pictures. I hoped that as they did this they

would read. That way, today they had a starting point. They were already interested in the topic.

Emily said she chose the development of a mural as an initiating activity for this unit because so many of the students in her class have artistic talent, and they are particularly interested in images and their meanings. While the social studies text did not provide a particularly in-depth portrait of Mexico, it did address, Emily said, broad topics of Mexican economy, the geography of Mexico, and its people and culture.

After sharing what they knew about Mexico, students were asked to brainstorm questions about Mexico they were interested in pursuing as research projects. Emily asked them to think about what makes a good research question, jot their ideas down in *column two* of their KWL charts, and later, to circle the one question that most interested them. Before giving the go-ahead to start researching, Emily took time to introduce the students to various resources in the classroom, including the encyclopedia, various social studies textbooks, a collection of trade books she had borrowed from the library, and a set of magazines she had collected containing articles on Mexico.

After this, students immediately went to work while Emily circulated around the room asking students what they were researching and offering whatever information she had on the topic herself as well as other resources or research strategies they might use. One student, for example, wondered if there was as much school violence in Mexico as there is in the United States. *That study may be too current for these books. Do you have an Internet account?* Emily asked. Since this student's inquiry question was one that obviously would have to be researched outside the classroom, Emily suggested that, for today, he might want to conduct a survey of what his classmates thought. The

implication was that in light of what he eventually found out, such data would provide an interesting starting point for presenting the study later on.

Throughout the observation, it was obvious that students in Emily's class felt a sense of community. They not only freely shared ideas, but readily helped each other as problems or questions arose. Further, students demonstrated through words and actions that they understood what to do and what was expected of them in the classroom. The placement of resources and materials allowed students to access what they needed without a lot of interruption or movement. Emily used a red, green, and yellow stop sign image on the overhead to regulate noise and to make students aware of how in-class time was important for the work they had to do.

What Phase IV Contributes to Our Understanding of the Relationship between Theory and Practice in Teacher Education?

Although the data collected in Phase IV is based on only one classroom observation, what seems clear is that teachers who understood the relationship between educological theory and educational practice during their preparation program (Anna & Emily) still understand and use that relationship to guide their teaching. Teachers, on the other hand, who had a fuzzy understanding of educological theory and educational practice relationships during their preparation program (Janet & Holly) still do not understand. Their approaches seem eclectic at best, if not traditional in the sense of reflecting district mandates and common-sense approaches to instruction (Mayer & Boomer, 1990). On the positive side, it is clear that all four of these teachers take teaching very seriously. Beyond that, however, differences

abound, with teachers who were more educological as interns far outshining those who were not.

Anna wants children to see reading first and foremost as a meaning-centered activity. In addition, she wants children to have a repertoire of strategies at their disposal for unlocking unknown words they encounter in print. Anna's teaching behaviors speak to the fact that she believes that children who are consciously aware of the reading process and who know what options are available to readers in terms of unlocking unknown items in print, have more control over the reading process. Trade books and literature discussions are a central component of her reading program. All of these notions were clearly part of the educological framework which guided Anna's teacher preparation program.

Emily's teaching is almost the personification of inquiry-based instruction. While some may say that this is due to the subject matter she was asked to teach, this argument does not seem very compelling in light of how social studies is typically taught. Note particularly that Emily said she had a lot of work to do in getting students over the notion that social studies was simply a matter of reading the text book and answering questions. While there is no evidence that Mexico as a topic of study came from students' interests, Emily managed to open the study up so that students could pursue their own inquiry questions. The KWL framework she used with her students was one introduced in her undergraduate preparation program as a simplified version of focused studies based upon the inquiry cycle. In her interview, Emily was concerned about her ability to see all of the work going on in small groups, arguing that there was just too much administrative work to do during each class period: *I am disappointed with my role in terms of*

participation. In the beginning of class, I have to do attendance, I have to write passes, I have to do this, I have to do that. I think that's something I can work on.

Emily said she has been working hard to get routines in place, and from her assessment, things seem to be working: *I think the students feel that I know what we're going to do. It's not like they come in here thinking we're not going to do anything today so let's go crazy. I think the structures [I have put in place] have helped.*

While Janet uses what she understands about a multiple ways of knowing (something she learned in her preservice program, see Figure 3) to integrate reading and music in her teaching, this educology is not carried through effectively. From what we can tell, Janet sees music as a motivator rather than as an expanded form of literacy and the focus of a good language arts program. The summary statement we wrote of her teaching reads, *This all too brief integration of music and literacy was followed by the reading lesson.* Rather than explore reading as inquiry with her children, Janet focuses her reading lesson on phonics, vocabulary building, and sequencing. Her practice is characteristic of a skill-based model of reading.

In contrast to Anna and Emily, Janet's teaching seems less child-centered. Either students performed at the level she expected and acted in the way she expected or they were dismissed from instruction. Unlike Emily, who seems to be constantly reflecting on her teaching in terms of how best to serve students, Janet demands conformity to her standards of behavior and language.

In many ways it is hard to believe that Janet was part of the program under study. As is evident in this report, there is little evidence that the educology undergirding her undergraduate teacher preparation had an effect on her

current teaching. When one looks across all four phases of this study, it is clear that by not having understood how educology ought to guide practice and vice versa, Janet has become vulnerable to the immediate pressures and mandates of the system in which she teaches. When we attempted to place a new intern in her classroom this past year, thinking that we needed to continue to support her development as a teacher, Janet reportedly told the student, *Well, you can come and work in my classroom, but the theories you learn in the program simply don't work with the children here.* While a statement such as this is disappointing, it is important to understand that it was and is Janet's lack of understanding of the relationships between educological theory and educational practice that has led her to this conclusion and made her feel vulnerable to the administrative mandates of the district in which she teaches. What is important to note is that Anna is under the same constraints. Both teachers work in a setting where there is pressure both from central administration and the principal's office to raise test scores.

Phase V: Give Us the Bottom Line

Another question which constantly gets raised is whether the specific educological frameworks we used made any difference on pupil learning in the schools. While we have lots of anecdotal evidence that it did, this does not seem to satisfy everyone. There are also questions about our position that we are not advocating a particular educological framework so much as exploring what a common educological framework (within and across a teacher education program and its practicum sites) has to say about the quality of teachers that get produced. These questions have some merit as it should be clear to anyone reading this

report that none of the investigators believe that all educological models of literacy, learning, curriculum or schooling are equal. Without a doubt, we began this project, and continue in it, hoping to reform both teacher and public school education.

Since we did not request test score data on pupils over the course of this study, answering this question is somewhat difficult. For the most part what we have are official school by school comparisons and official statements from the district office. In 1996, the Office of Research, Evaluation, and Assessment within IPS released a report showing the percentage of students falling below the Indiana State Test of Educational Performance (ISTEP) School 92, within which the Center for Inquiry was located, was reported as having 45 percent of its 3rd grade population not meeting this expectation in English and language arts and 61 percent of its 3rd grade population not meeting this expectation in mathematics (IPS Report 7.31.96).

Three years later, in 1999, the Center for Inquiry received the International Reading Association Award for the Exemplary Reading Program in Indiana. Only one award per state was made. As part of the documentation process for this award, standardized test scores were requested. Although we do not know mean scores or standardized deviations, the following conclusions were reported: On the Fall, 1999 ISTEP, 87% of CFI 6th graders received a passing score as compared to 36% of 6th graders district-wide. Despite the fact that CFI is an urban school with a high (85%) minority population, CFI students also outscored students in schools making up the first ring of suburbs surrounding Indianapolis. Lawrence Township was reported as having 65% of its students receive a passing grade; Perry Township, 65%; Franklin Township, 68%; and

Decatur Township, 54%. According to the Spring, 1999 Terra Nova [a version of the California Test of Basic Skills] results, CFI first graders scored at the second grade level (2.0), 2nd graders scored at the 3.4 level, 3rd graders at the 5.1 level, 4th graders at the 6.6 level, 5th graders at the 8.4 level, and 6th graders at the 8.1 level (State Exemplary Reading Program Submission, 1999).

Although equivalent data on the Terra Nova is not available for other schools in the district or in the state, both the ISTEP and the Terra Nova data reported suggest that on traditional measures of achievement, CFI students are doing much better than can be expected given other schools in the district.

Given the amount of pressure most schools are under to raise test scores, these data suggest that the addition of a teacher preparation program on-site in the school did not set back student performance. If anything, we have evidence that students did better. While we can make no claims that the educological framework of our school or our teacher education program made these differences, we can argue that they did not automatically lower standardized measures of student achievement. There are, of course, lots of questions that cannot be answered by standardized test scores reported in this fashion. What remains to be sorted out is how much socio-economic status and parental choice accounts for these increases in test scores. Last fall, the IPS School Board voted to give the Center for Inquiry its own building in the heart of downtown Indianapolis. With this change has come an influx of students as well as a changing demographic population. Given our experience in conducting and presenting this study, we have asked for and received permission to study standardized test scores more

closely. It will be interesting, for example, to know the kinds of items on which students are or are not performing.

In addition to standardized test results, other outside measures of program achievement exist. In 1995, the Teaching to Learn/Learning to Teach program at Indiana University-Purdue University, Indianapolis (IUPUI) was named a Promising New Program by the Association of Teacher Educators. In 1999, the core campus Indiana University teacher education program was selected as one of 8 exemplary programs by the National Commission on Excellence in Elementary Teacher Preparation for Reading Instruction (Keating, 1999).

Concluding Thoughts

Just as one must first be a philosopher to be a scientist, so too it is necessary that teachers imagine what *could be* if they wish to change *what is*. While teacher education is a complex business, what this study suggests is that how we conceptualize problems affects the discourse we use and hence our approach to finding solutions. In our efforts to re-imagine schools and teacher education, we can no longer position ourselves as guests in the schools. This study demonstrates that when teachers and university faculty work together to re-envision the kind of people we want to be and the kind of profession we want to become, good things can happen.

Carolyn Burke (as quoted in Harste, 1993) says that the function of curriculum is to give perspective. One of the problems with re-envisioning curriculum in teacher education is our starting point. *Practice makes practice*, this study suggests, only if and when relationships between educological theory and educational practice are not understood. That this may be the general case only speaks

to how far away from *curriculum* most current programs of teacher education are. When the study and the program reported here are seen as a practical instance of *what might be*, and this vision is used to elevate expectations, see problems as possibilities, and as Maxine Greene (2000) says *e-envision the possible*, then we will have made progress. And, we can take to heart from one of the lessons these interns taught us. While it is true that our rhetoric may be ahead of our practice, this phenomenon is both a harbinger of greater things to come and an artifact of a deeper understanding of the relationship between educological theory and educational practice in teacher education.

Bibliography

- Applebee, A. N. (1997). Rethinking curriculum in the English language arts. *English Journal*, 86: 3, 25-3.
- Beach, R. (1996). *Stances in engagement and resistance in responding to multicultural literature*. Paper given at the annual meeting of the National Reading Conference, New Orleans.
- Beach, R., & Myers, J. (2000). *Constructing social worlds in the English classroom: An inquiry-based approach*. New York: Teachers College Press.
- Britzman, D. P. (1992). *Personal relevance with a vengeance, or what could go wrong in English education*. Invited address at the Mid-Winter Seminar on Teacher Learning and Teacher Knowing sponsored by the National Council of Teachers of English Assembly on Research and the National Conference on Research in Language and Literacy, Chicago, IL.
- Berghoff, B., Egawa, K. A., Harste, J. C., & Hoonan, B. T. (2000). *Beyond reading and writing: Inquiry curriculum and multiple ways of knowing*. Urbana, IL: National Council of Teachers of English.
- Davis, B., Sumara, D. J., & Luce-Kapler, R. (2000). *Engaging minds: Learning and teaching in a complex world*. Lawrence Erlbaum.
- DeFord, D. (1978). *Teachers' Theoretical Orientation to Reading*. Unpublished doctoral dissertation, Indiana University.
- Gee, J. (1996). *Social linguistics and literacies: Ideology in discourses* (2nd Edition). London: Taylor & Francis.

International Journal of Educology, 2002, Vol 16, No 2

- Goodman, J. (1985). Field-based experience: A study of social control and student teachers' response to institutional constraints. *Journal of Education for Teaching*, 11, 26-46.
- Goodman, J. (1986). Making early field experience meaningful: A critical approach. *Journal of Education for Teaching*, 12, 109-125.
- Greene, M. (2000). *Releasing the imagination: Essays on education, the arts, and social change*. Jossey Bass.
- Harste, J. C. (1993). Literacy as curricular conversations about knowledge, inquiry, and morality. In M. Ruddell & R. Rudell, *Theoretical models and processes of reading* (4th Edition). Newark, DE: International Reading Association.
- Harste, J. C., & Burke, C. L. (1977). A new hypothesis for reading teacher education: Both the teaching and learning of reading are theoretically based. In P. D. Pearson (Ed.), *Reading research, theory and practice* (Twenty-sixth Yearbook of the National Reading Conference). Chicago, IL: National Reading Conference.
- Harste, J. C., & Leland, C. H. (1998). No quick fix: Education as inquiry. *Reading research and instruction*, 37:3, 191-205.
- Harste, J. C., Leland, C., & Schmidt, K. (1997). *Practice makes practice, or does it? Using intercontextuality theory to understand the role that theory plays in teacher education*. Paper presented at the annual meeting of the American Education Research Association, San Diego.
- Harste, J. C., Leland, C., & Schmidt, K. (1999). *Practice makes practice, or does it? Understanding the role that theory plays in teacher education*. Paper presented at the annual meeting of the American Education Research Association, New Orleans.
- Harste, J. C., & Vasquez, V. (1998). The work we do: Journal as audit trail. *Language Arts*, 75:4, 266-276.
- Harste, J. C., Woodward, V. A., & Burke, C. L. (1984). *Language stories and literacy lessons*. Portsmouth, NH: Heinemann.
- Harste, J. C., Vasquez, V., Lewison, M., Beau, A., Leland, C., & Ociepka, A. (2000). Supporting critical conversation in classrooms: A review of more than 50 picture books and young adult novels. In Kathryn Mitchell Pierce (Ed.), *Adventuring with books* (4th Edition). Urbana, IL: NCTE.
- Henkin, R. (1998). *Who's invited to share?* Portsmouth, NH: Heinemann.
- Herron, C. (1997). *Nappy hair* (Illustrated by Joe Cepeda). New York: Alfred A. Knopf

International Journal of Educology, 2002, Vol 16, No 2

- IPS Report 7.31.96. (1996). Indianapolis, IN: Office of Research, Evaluation and Assessment, Indianapolis Public Schools.
- Leland, C., & Harste, J. (1999). *Is this appropriate for children?* Books that bring realistic social issues into the classroom. *Practically Primary*, 4:3, 6-10.
- Leland, C., Harste, J., Ociepka, A., Lewison, M., & Vasquez, V. (1999). Exploring critical literacy: You can hear a pin drop. *Language Arts*, 77:1, 70-78.
- Leland, C., Harste, J. C., & Youssef, O. (1997). Teacher education and critical literacy. In Charles K. Kinzer, Kathleen A. Hinchman, and Donald J. Leu (Eds.), *Inquiries in literacy theory and practice* (46th Yearbook). Chicago, IL: National Reading Conference, pp. 385-396.
- Keating, G. (1999). National commission on excellence in elementary teacher preparation for reading instruction. *Reading Today*, 9:41.
- Langer, S. (1980). *Philosophy in a new key: A study in the symbolism of reason, rite and art* (3rd Edition). Cambridge, MA: Harvard University Press.
- Lankshear, C. (1997). *Changing literacies*. Philadelphia, PA: Open University Press.
- Luke, A. & Freebody, P. (1997). Shaping the social practices of reading. In S. Muspratt, A. Luke, and P. Freebody (Eds.), *Constructing critical literacies*. Cresskill, NJ: Hampton Press, 185-225.
- Mayer, J. & Boomer, G. (1990). *Uncommon sense: Theoretical practice in language education*. Portsmouth, NH: Boynton Cook.
- Schmidt, K. (1997). Math investigations. Presentation made at the annual meeting of the Whole Language Umbrella conference, Seattle, WA.
- Short, K. G. (1993). *Curriculum for the 21st century: A redefinition*. Speech given at the annual meeting of the National Council of Teachers of English, Pittsburgh, PA.
- Siegel, M. (1985). More than words: The generative power of transmediation. *Canadian Journal of Education*, 20:4, 455-475.
- Short, K. G., Harste, J. C., & Burke, C. L. (1996). *Creating classrooms for authors and inquirers*. Portsmouth, NH: Heinemann.
- State Exemplary Reading Programs (2000). Newark, DE: International Reading Association.

International Journal of Educology, 2002, Vol 16, No 2

- Wells, G., w/ Davis, G., Donoahue, Z., Hume, K., Kowal, M., McGlynn-Stewart, M., & Tassell, M. (2000). *Text, talk, and inquiry*. New York: Teachers College Press.
- Vasquez, V. (1999). *Negotiating critical literacies with young children*. Unpublished doctoral dissertation, Indiana University.
- Vasquez, V. (2000). Building community through social action. *School Talk*, 5:4, 2-4.