

DOCUMENT RESUME

ED 337 459

SP 033 384

AUTHOR Holt-Reynolds, Diane
 TITLE The Dialogues of Teacher Education: Entering and Influencing Preservice Teachers' Internal Conversations. Research Report 91-4.
 INSTITUTION National Center for Research on Teacher Learning, East Lansing, MI.
 SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
 PUB DATE Sep 91
 NOTE 28p.; Paper presented at the Conference on Curriculum Theorizing and Classroom Practice (12th. Dayton, OH). Occasional broken type.
 AVAILABLE FROM National Center for Research on Teacher Learning, 116 Erickson Hall, Michigan State University, East Lansing, MI 48824-1034 (\$4.75).
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)
 EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS College Students; Elementary Secondary Education; Higher Education; Participatory Research; *Perspective Taking; *Preservice Teacher Education; *Prior Learning; Student Development; Teacher Education Programs; *Teacher Educators; Teaching Methods
 IDENTIFIERS Biographical Analysis; Dialogic Education; *Preservice Teachers; *Reflective Thinking

ABSTRACT

Teacher educators have acknowledged the importance of preservice teachers' biographies but remained largely inarticulate about how shared knowledge of personal histories helps shape preservice teachers' thinking and ultimate practice. This document provides a detailed description of how preservice teachers use their personal histories to generate premises which in turn constitute an internal, reflection-like dialogue between Self-As-Student and Self-As-Teacher as a way of making sense of course work. The report also analyzes the relationship between the personal histories of nine preservice teachers and the practical arguments they employed to defend decisions they made about the potential value of instructional principles encountered during formal studies of teaching. Also explored are the implications these dialogic strategies have for teacher educators. Cooperation and participation in dialogues rather than monologues can enable preservice teachers' arguments to be influenced and their reflections shaped. (Author/LL)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED337459

Research Report 91-4

The Dialogues of Teacher Education: Entering and Influencing Preservice Teachers' Internal Conversations

Diane Holt-Reynolds



National Center for Research on Teacher Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it

Minor changes have been made to improve reproduction quality

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M. Kennedy

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

BEST COPY AVAILABLE

Sponsored by the United States Department of Education
Office of Educational Research and Improvement

1033 384



Research Report 91-4

**THE DIALOGUES OF TEACHER EDUCATION: ENTERING AND INFLUENCING
PRESERVICE TEACHERS' INTERNAL CONVERSATIONS**

Diane Holt-Reynolds

Published by

The National Center for Research on Teacher Learning
116 Erickson Hall
Michigan State University
East Lansing, Michigan 48824-1034

September 1991

This work is sponsored in part by the National Center for Research on Teacher Learning, College of Education, Michigan State University. The National Center for Research on Teacher Learning is funded primarily by the Office of Educational Research and Improvement, United States Department of Education. The opinions expressed in this paper do not necessarily represent the position, policy, or endorsement of the Office or the Department.

National Center for Research on Teacher Learning

The National Center for Research on Teacher Learning (NCRTL)¹ was founded at Michigan State University in 1985 with a grant from the Office of Educational Research and Improvement, U.S. Department of Education.

The NCRTL is committed to research that will contribute to the improvement of teacher education and teacher learning. To further its mission, the NCRTL publishes research reports, issue papers, technical series, conference proceedings, and special reports on contemporary issues in teacher education. For more information about the NCRTL or to be placed on its mailing list, please write to the Editor, National Center for Research on Teacher Learning, 116 Erickson Hall, Michigan State University, East Lansing, Michigan 48824-1034.

Director:	Mary M. Kennedy
Associate Director:	G. Williamson McDiarmid
Program Directors:	Linda Anderson, Deborah Ball, G.W. McDiarmid
Director of Dissemination:	Cass Book
Project Manager:	Anne Schneller
Editor:	Sandra Gross

Many papers published by the NCRTL are based on the Teacher Education and Learning to Teach Study (TELT), a single multisite longitudinal study. The researchers who have contributed to this study are listed below:

Marianne Amarel	Monica Mitchell
Deborah Loewenberg Ball	Harold Morgan
Joyce Cain	James Mosenthal
Sandra Callis	Gary Natriello
Barbara Camilleri	Barbara Neufeld
Anne Chang	Lynn Paine
David K. Cohen	Michelle Parker
Ada Beth Cutler	Richard Prawat
Sharon Feiman-Nemser	Pamela Schram
Mary L. Gomez	Trish Stoddart
Samgeun K. Kwon	M. Teresa Tatto
Magdalene Lampert	Sandra Wilcox
Perry Lanier	Suzanne Wilson
Glenda Lappan	Lauren Young
Sarah McCarthey	Kenneth M. Zeichner
James Mead	Karen K. Zumwalt
Susan Melnick	

¹ Formerly known as the National Center for Research on Teacher Education (1985-1990), the Center was renamed in 1991.

Abstract

Teacher educators have acknowledged the importance of preservice teachers' biographies but remained largely inarticulate about how shared knowledge of personal histories helps shape preservice teachers' thinking and ultimate practice. This report provides a detailed description of how preservice teachers use their personal histories to generate premises which in turn constitute an internal, reflection-like dialogue between Self-As-Student and Self-As-Teacher which preservice teachers use to make sense of course work. It analyzes the relationship between the personal histories of nine preservice teachers and the practical arguments they employed to defend decisions they made about the potential value of instructional principles they encountered during formal studies of teaching. This report also explores the implications these dialogic strategies have for how teacher educators might cooperate with and so shape preservice teachers' thinking/practical arguments.

THE DIALOGUES OF TEACHER EDUCATION: ENTERING AND INFLUENCING PRESERVICE TEACHERS' INTERNAL CONVERSATIONS¹

Diane Holt-Reynolds²

It is often far easier to join a conversation already in progress between individuals who are accustomed to talking together than it is to start up a conversation from scratch with a stranger. Joining an ongoing conversation simply requires paying attention to contextualizations that have already been established, catching the drift of the arguments, and asking for pieces of the conversation missed earlier. While joining in demands considerable social skill, it is a feat most of us are able to achieve regularly without angering or annoying those with whom we wish to converse.

Imagine the reactions, however, should we walk into an ongoing conversation, ignore it as if we were oblivious to its existence, impose on the participants an entirely new topic of conversation, and assume their enthusiastic responses and participation. Young children make this sort of social blunder and are told, "Wait your turn," or "Can't you see I'm talking?" by parents who feel more than justified in so socializing their children.

Preservice teachers seldom feel similarly justified. When our teacher education courses impose topics for reading and study which to them seem irrelevant, unnecessary, and unconnected to any of the issues they assume constitute learning to teach, few of them can or would tell us, "Wait. If you want to be a part of this conversation, listen for a while and then join in. Interrupting and asserting whole new topics just because they interest you is not the way to converse." Course instructors would be most shocked by such a response. Is there indeed a conversation in progress called "preservice teacher thinking" that we have never recognized or heard?

Despite the fact that we have acknowledged Lortie's (1975) identification of education as a field where beginners come to their formal studies after an extended "apprenticeship of observation" we have long acted as if the preservice teachers with whom we wish to converse were internally silent and mentally unoccupied on the subject of "teaching" prior to their arrival in our classrooms. We have greeted them warmly but announced our agenda with little regard for the ongoing nature of the dialogues they already use for thinking about their own future practices.

¹This paper was presented at the 12th Conference on Curriculum Theorizing and Classroom Practice, Bergamo Center, Dayton, Ohio.

²Diane Holt-Reynolds, assistant professor of teacher education at Michigan State University, is a senior researcher with the National Center for Research on Teacher Learning.

Recent curiosity about preservice teachers' biographies (Knowles & Hoefler, 1989) or personal histories (Bullough, 1990; Knowles, 1988, 1989; Knowles & Holt-Reynolds, in press) has shed considerable light on the range of critical incidents (Measor, 1985) which preservice teachers recall and use to shape their emerging beliefs about appropriate classroom practices. While these lines of research are intuitively appealing and enormously interesting, we have been largely inarticulate about how shared knowledge of preservice teachers' personal histories helps us to enlarge, shape, or reformulate their thinking and practice.

The analysis reported here of interview data with nine students of teaching who were engaged with formal course work but who were not yet involved with field applications suggests that asking preservice teachers about their experiences of home, community, and schooling actually constitutes a first step in entering the contextualized, internal, and ongoing "conversation" which is preservice teachers' thinking about their future practices. What follows is a detailed description of the strategies these preservice teachers reported using to make sense of course principles, a discussion of the relationship between those strategies and the practical arguments (see Fenstermacher, 1986) they constructed to support and defend decisions they made about the potential value of the instructional principles they encountered, and an exploration of the implications of those dialogic, reflection-like strategies for how teacher educators might cooperate with, and so shape, preservice teachers' thinking/practical arguments

Dialogue As a Strategy of Reflection

Preservice teachers enter their formal studies of teaching with an array of beliefs about teaching. In order to document, understand, and influence this phenomenon, researchers have raised questions about what preservice teachers believe (Book, Byers, & Freeman, 1983; Clandinin, 1985; Feiman-Nemser & Buchmann, 1986; Hollingsworth, 1989; Zeichner, 1980; Zeichner & Tabachnick, 1981), where they learned it (Bullough, 1990; Grossman, 1988; Grossman & Richert, 1986; Lortie, 1975; Measor, 1985), and what they need to know to become experts (Berliner, 1986; Carter & Doyle, 1987; Clark & Lampert, 1986; Doyle, 1977, 1990; Grossman, 1990; Shulman, 1986).

These are indeed provocative questions. However, as important as it is to understand what beginning teachers believe about "good teaching," to trace the roots of those beliefs, and to predict additional beliefs and knowledge they will need, the question of *how* preservice teachers developed their lay knowledge and *how* they modify and/or use that

knowledge to inform their formal study of teaching (see Hollingsworth, 1989; Holt-Reynolds, 1990, 1991; Knowles, 1988) constitutes a relatively new horizon.

Informally, throughout many years of working with preservice teachers in course work settings, and more formally as part of a study of preservice teachers' responses to particular principles associated with content area reading, I have asked them to describe for me what they do to determine whether an idea they encounter through course work is a "good" or a "bad" idea for their future use as a teacher. The preservice teachers' responses shared here came out of a series of six interviews with each of nine preservice teachers while they were taking a course in content area reading, writing, and discussion for secondary teachers. All were traditional undergraduate students with previous course work in educational psychology and/or multicultural education and some experience tutoring individual students in their subject matter majors—English and math.

Their backgrounds reflected a range of high school contexts. Two had attended private, religiously affiliated high schools. One had attended a very large suburban school, another a correspondingly small rural school. Others had attended public schools of moderate to average size in suburban locations.

Their responses to my questions about how they were making decisions about the value of course ideas, while reflecting their own uniquely personal histories, were not idiosyncratic. Every preservice teacher in this particular study, those who participated in the pilot study (Holt-Reynolds, 1988), and the many preservice teachers with whom I have talked more informally across my eight semesters of association with this content area reading course reported, with quite minor variations, elements of a conversation with Self-as-Student as a primary strategy for thinking about and so evaluating the potential merits of research-based instructional strategies. Their conversations are, in effect, a naturally occurring, lay form of reflection not unlike the professional, acquired forms of reflection suggested by Schon (1983) as an important practitioner skill. What follows is a description of this strategy, or dialogue, and an analysis of this as a method of reflection.

A Strategy: Dialogue

Anyone who has ever taught an introductory teaching course, a general course in educational psychology, or general methods of teaching course will attest to the fact that, even though beginning teachers have no current classroom experiences to summon as counterevidence, they resist with varying degrees of assertiveness many—sometimes most—of the ideas presented in course work. How can they do so? In the absence of current field

experience as teachers, what data do they use to evaluate the ideas they encounter through course work?

The preservice teachers I have asked tell me that as they listen to or read about a description of an activity or format for instruction, they mentally play out an imagined scenario with two fantasy characters, a Teacher using the idea or activity, and a Student engaging in that idea, or activity. Charlie,³ an English major, described in some detail his strategy for thinking about course suggestions.

I get a picture in my head of me standing in front of the classroom and me being a student in the back. I like to see myself as a teacher from the students' point of view. I think, "[This activity] will accomplish things you want as a teacher." Then, I try to picture students' reactions. I think about doing the [activities] myself.

Jude, also an English major, described the same strategy as had Charlie. "I think, 'Let's make up a real situation. Would this work with me?' I would be a student, and then I would jump out of that and think, 'What if I assign this to students?'"

Charlie and Jude are cited here because they gave clear, articulate accounts of a mental role-playing scenario which other preservice teachers also described for gathering the data they needed in order to evaluate the ideas they encountered through course work. All those with whom I have talked explained that they determine what they value for their future practice as a teacher by imagining how a possible activity or format would appear from a student's point of view. Some literally imagined classrooms. Others dispensed with imaginary "scenery" and skipped straight into a dialogue with themselves.

Regardless of the personal liberties any one preservice teacher reported taking with the scenario strategy, all reported "consulting" themselves in their familiar roles as students in order to establish what they believe in their emerging roles as teachers. Each "listens" to the internal voice of Self-as-Student in the imagined context of an activity or assignment in order to understand how a possible instructional decision might play itself out in an actual classroom and to discover whether Self-as-Teacher would profit from implementing that instructional option.

Not only did every preservice teacher with whom I talked describe the practice of inferring their professional, teacher's point of view from data about students' potential reactions to specific teacher practices, they also all used themselves as the dominant if not the exclusive student referent. Occasionally, preservice teachers also reported "consulting"

³Names used are pseudonyms.

as a student voice types of high school students they had known or seen in their own schooling experiences. These uses of the voices of other students, however, have amounted to caricatured voices.

Dave, a math major, is a good example. He decided that many of the instructional strategies he was studying applied to "those scummy kids" from low-ability tracks who he hoped he would "never have to teach." When he evaluated course ideas from the point of view of "those scummy kids," he reached very different conclusions about their potential value than when he evaluated the ideas using himself as the student voice.

Will, also a math major, referred on one occasion to "the heavy metal types." Thinking about possible instructional strategies from their point of view troubled him. He was unable to imagine any successful teaching scenarios with "the heavy metal types" cast in the role of student.

Some preservice teachers also reported scenarios where they imagined a particular student they had known in the student role. Sometimes this other student was a high school student they had tutored; sometimes it was a high school friend whose experience of school had been different from their own. But the use of these voices as referents were rare and always in addition to the voice of Self.

That some preservice teachers reported even isolated instances of basing their scenarios on a source beyond themselves is, however, encouraging. While preservice teachers' internal dialogues appear to be structurally consistent, designed to allow a student's point of view to dominate and so generate the teacher's point of view, variations in whose point of view that student voice reflects do appear to occur naturally (see Knowles, 1990). Self-as-Student is clearly the preferred choice. However, Someone-Else-as-Student may constitute a profitable, developmentally natural next step which teacher educators could consciously foster.

What each of these preservice teachers described is essentially an inductive strategy for reaching a decision about the merits of particular teacher behaviors. It is inductive, even reactionary, rather than proactive because the strategy supports preservice teachers' attempts to "find" their point of view and their voice as a professional teacher by examining what they have already come to believe about classrooms, teachers, and subject matter in their practiced, familiar role as a student. The strategy helps them to create the role Self-as-Teacher in response to their experiences as a student. By basing their projected actions as teachers on how they believe students will react—as represented by a prototypic test case, Self-as-Student—preservice teachers effectively bring into imaginary life a Self-as-Teacher who responds skillfully to their real-life, personal history-based concerns as students.

Jane, Corinne, and Lauren described how imagining a teacher's action from a student's point of view results in evaluating an activity's potential value. Their descriptions illustrate a range of ways that preservice teachers talk about their thinking strategies. "If it's a brand new idea, I try to imagine myself as a student and how I would react to it. If it's something I've seen before, I just remember how I reacted" (Jane).

Jane's reference to her use of specific memories was not unusual. Preservice teachers frequently report actual instances from their pasts where teachers implemented activities similar to those advocated in their professional course work. They recall the effects those activities had on themselves as students. Corinne explained the process explicitly. "You just see what you liked, what got you interested as a student, if I'd want to do [this activity] as a student. Then, you correlate that to how you would teach."

Lauren also talked about her use of remembered events. However, Lauren described a blending of what had been several individual teachers' discrete practices to form a new whole.

What works for me. That's the computer that I put the notion from the professor in and it goes through. "What works for me" is the conglomeration of all the teachers that I've had that I liked that were good, that were not good—what works or doesn't work based on when I was a student and upon what I've seen other students react to.

These particular preservice teachers are cited here not because they constitute the entire corpus of examples of this phenomenon but because, like Charlie and Jude above, they described their mental strategies in language that is accessible, easy to follow and to understand. While others with whom I have talked have been less artful in their descriptions, none have been unable to describe readily the thinking strategies they use. All the preservice teachers that I have interviewed or spoken with less formally talked about judging the merits of the instructional principles they have encountered through course work by imagining how they as students would react to the associated strategies were those used in a class where they were students.

Since this scenario-based dialogue between Self-as-Student and Self-as-Teacher is so pervasive, it is important to note what is missing from these scenarios. No preservice teachers described thinking about their future instruction by using research-based rationales to predict possible effects of instructional decisions. Despite participating in opportunities to read about and discuss each rationale, none reported including a role in their scenarios for the objective voice of educational principles either as a substitute for the student's voice or as a third voice participating in the internal conversation. Yet, all those interviewed were

enrolled and "doing well" in teacher education course work. All had full exposure to the production arguments (Fenstermacher, 1986) associated with the content area reading/writing strategies they were studying. Yet, none of these preservice teachers reported using the professional arguments which surrounded them to inform their thinking about classrooms or their decisions about future practice. Those arguments became, temporarily, the object of their thinking but not a participating third voice that colored their decisions.

This means that the student's point of view, the student's voice, is extremely powerful in preservice teachers' thinking. As preservice teachers describe it, learning to think like a teacher begins with a form of reflection about instructional practices that relies almost exclusively on the point of view of Self-as-Student. In each case above and across both formal and informal interviews with preservice teachers, the student's voice clearly dominated the internal dialogue, led it, while the teacher's voice emerged in response to that lead.

Preservice teachers' strategic use of an internal dialogue as a lay form of reflection has clear advantages. It allows their discovery of their teacher identity to be personal. It creates a safe forum for testing professional theories. It accentuates student outcomes as a criterion for determining the value of those theories. However, it also has characteristics which limit and constrain the range of information available to preservice teachers out of which they form their teachers' point of view.

A Strategy With Limitations

While preservice teachers' thinking can be appropriately understood as a lay form of reflection, there are some potentially dysfunctional and unprofitable characteristics of the form of reflection they report using. These characteristics are both of a structural nature and a content nature. Each will be considered separately here.

Structural limitations. Structurally, preservice teachers' lay form of reflective dialogue is uneven. In preservice teachers' dialogues, the voice of Self-as-Student speaks with considerable authority. But the voice of Self-as-Teacher is not similarly gifted; it does not challenge, override, argue with, or correct the voice of Self-as-Student.

There is little reason to expect that it should. Preservice teachers realize that they have little or no experience in the role of teacher. They have heard teachers talk to students in classrooms for the entirety of their schooling lives; however, that teacher talk is not, typically, filled with professional teacher thinking. It is the voice of Teacher-as-Activity-Director or Teacher-as-Lecturer. It is teachers' classroom talk, not

teachers' thinking about instructional decisions that preservice teachers have overheard. Consequently, with no personal experiences as teachers from which they can feel confident and with no models for Teacher-as-Decision-Maker thinking, preservice teachers' scenarios depend heavily on the only voice they know and trust as accurate—their own voice as Student.

This structural element of preservice teachers' form of reflection limits their opportunity to profit truly from their own dialogic tendencies. It means that, while Self-as-Teacher can listen to and learn from the perspective of Self-as-Student, the perspective of Self-as-Student has no opportunity to be similarly informed by any other voice. The dialogue stops once Self-as-Student finishes speaking. No further exchange or progressively well-informed problem reframing develops. Reflection that began as dialogue ends abruptly in monologue.

One obvious option available to preservice teachers would be to use the voice of professional principles as a synthetic substitute for the authentic voice of Self-as-Teacher until that voice can confidently emerge in its own right. Adopting the language and point of view of research-based principles of instruction could bolster preservice teachers' confidence about their voice as Teacher and help them discover new points of view.

Despite the apparent logic of such a strategy, no preservice teacher has ever reported using this option. The universal rejection of or inability to perceive this strategy prompts speculation about why preservice teachers do not think about their future practices by utilizing the abstract principles we teach them as a voice, or a point of view. Perhaps the objective nature of the abstract principles we teach in teacher education course work lacks elements necessary to prompt preservice teachers to recognize them as a potential voice. Perhaps their impersonal, objective quality makes principles of instruction difficult to include in a highly personalized conversation like the dialogues preservice teachers report. Perhaps we have simply never taken the time to show preservice teachers how to use the abstracted principles of our profession as a voice with which to speak and inform the personal history-based point of view they bring to teaching.

While all of these speculations may have some validity, I suspect that the most powerful reason why preservice teachers do not adopt theoretical points of view in order to inform their student point of view is that its usefulness is based on an assumption about the task of becoming a professional, an assumption which preservice teachers evidently do not share. As teacher educators, we assume that preservice teachers will take the principles of our profession as a "given" against which to adjust their student-based beliefs and points of

view. Evidently, however, preservice teachers assume that the principles of the profession are ideas which must be "proved" against the "givens" of their student-based beliefs.

The structure of their reflection certainly supports this task. It does not support the task we assume they should be addressing, namely, reformulating their beliefs about students as learners. The implications of these very different assumptions about what it means to develop a professional knowledge base are discussed in the final section of this report.

Structurally, preservice teachers' forms of reflection are limited exchanges between unequal voices. But the problems with this lay form of reflection are not confined to issues of structure alone. The content of the dialogues is also problematic.

Content limitations. Preservice teachers report developing the content base for their Self-as-Student dialogues directly out of interpretations they made as high school students about their experiences there. Just as every preservice teacher with whom I have talked has reported a reliance on the voice of Self-as-Student to help them discover their point of view as Teacher, so all have reported developing the content of Self-as-Student's point of view, their lay conceptualizations of classrooms, teachers, and subject matter, in identical ways. All reported drawing heavily from interpretations they had made about what teacher behaviors had been causal in critical events from their past schooling (Knowles & Holt-Reynolds, in press).

Preservice teachers recall moments when, as a student, they experienced either particularly unusual successes or especially noticeable difficulties. As students, they looked to see what the teacher in charge had done to "cause" this event. Since only features of teachers' personalities and presentations were readily observable, as students, they inferred that these were the sole causes of the experience. As Dave described it, "Most of what I know about teaching comes from being a student first, from being an observer."

Dave's emphasis on his own role as an observer was echoed by both Charlie and Jude. "I think about what happened to me as a student, and then how I can use that as a teacher" (Charlie); "I start with myself. I think, 'What gets me interested?' I think about myself in the place of the students" (Jude).

These statements point to the interpretive nature of preservice teachers' observations of teachers. As with the reflective strategy preservice teachers reported using as a way to evaluate course ideas, here again the student's voice or point of view is dominant. Charlie, Dave, and Jude observed teachers' behaviors as students and, from that student's perspective, isolated what they assumed were the elements of that behavior that caused "what happened to me" or "what helped me."

The troublesome point in this strategy is that, as students, these preservice teachers had no access to their teachers' actual thinking or motives. So, they inferred them. As students, they could not possibly know through mere observation what teachers intended, what instructional decisions they made, or what professional principles they were utilizing in their work: As students, they could only know what they saw, heard, and experienced. Their conclusions were actually only skillful, analytical inferences about the rationales behind what they saw their teachers doing.

The actual contents of their attributions for particular experiences of studenting are amazingly similar. Of all the elements of personality and presentation that preservice teachers argue are responsible for their own successes and failures as students, they most frequently identify "interestingness." Almost everyone with whom I spoke believed that students in general learn more when teachers are interesting. Corinne's statement, "You get more out of things that you're excited about than something you dread doing" and Will's "I think it [is] easier for a student to understand if they are interested in the topic" were typical. Like most preservice teachers, they believed this is true because they believed that "interestingness" was salient to or actually causal in incidents when they learned more or had an easier time learning than when teachers were not interesting.

While almost everyone identified "interestingness" as a teacher behavior that "causes" students to learn, other features of teachers' personalities also emerged. Some identified "caring" as an important behavior. Others identified a willingness to "share authority," an ability to make students feel "comfortable," an effort to "involve students" in classroom events. Each of these characteristics of "good" teaching was accessible to preservice teachers through their experiences as students watching their teachers. As students, preservice teachers concluded that their teachers intended to reach instructional outcomes when they behaved in interesting, caring, nonauthoritative, and inclusive ways.

A conclusion like this, a belief that a teacher's efforts to be interesting "caused" learning, seems innocuous enough. After all, students cannot be expected to make completely accurate connections between their successes and teachers' actions. And "interestingness" is certainly an element we hope they include in their future practices. The danger in this apparently harmless conclusion lies in the fact that it appears to account for all the elements of the preservice teachers' experience; consequently, preservice teachers treat conclusions like "I learned because the teacher was interesting" as if these were complete, entirely generalizable explanations for their experiences.

Jeneane, an English major, was one preservice teacher who believed that "interestingness" accounted for her success as a student. She projected from that belief to

a prediction about how her own interesting behavior as a teacher might academically influence her future students. "[Students] may pick up [information] in my class because they are interested."

Dave and Beth, both math majors, reached similar conclusions. "If you are a boring teacher, no one is going to like your class. If a teacher is more interesting and gets everyone excited, [students] are probably going to learn" (Dave); "If students are not interested, they are not going to learn, or they're not going to learn as much. . . . I know if I'm interested in a class or think a professor is particularly good, I'll work harder" (Beth). These are satisfying attributions. They explain the student's experience; they can be tested in subsequent experiences, and they certainly suggest a course for beginning teachers to pursue as they imagine their careers as teachers.

Apparently, many preservice teachers sense no need to search for other, more professional explanations for the classroom successes or struggles that they recall. Minus overt intervention on our part, many tend not to realize that the student-based conclusions they have reached do not reflect the range of teacher thinking they need in order to develop their own expertise as teachers. Instead of adopting research-based principles as new theories that offer more complete explanations than were available to them as students, they tend to maintain their personal history-based, lay conclusions about classrooms and to instead "test" the validity and usefulness of professional principles against them. They believe that all they need to achieve in teacher education is skill at being interesting, caring, and so forth. Once formed, preservice teachers use conclusions like these as generalized arguments to support their decisions about their future practices. Their rationales or arguments are very like the practical arguments Fenstermacher (1986) has identified in the talk of practicing teachers. Preservice teachers use these premises—their personal history-based beliefs about what teachers should do to "cause" particular desired responses in students—to defend the decisions they make about the potential value of the research-based ideas they encounter through course work.

Tracing the effects of preservice teachers' lay form of reflection on their decisions demonstrates how vital it is that we as teacher educators develop ways of overhearing and of participating in their internal dialogues and thus in the decision-making processes that are the results of preservice teachers' discourses of reflection.

The Character of Decisions Reached Through Dialogue-Based Reflection

Preservice teachers do more during their course work experiences than simply imagine how they wish to behave as teachers one day. They actively evaluate the potential

benefits of the instructional principles they encounter. They reach decisions about whether those principles are valid and about whether they will implement the strategies and activities associated with those principles.

The strategies preservice teachers use for reaching decisions about their own future practices and the supporting practical arguments that preservice teachers develop necessarily affect the character of those decisions and arguments. Preservice teachers' decisions about the principles they encounter through course work tend to be personal history based, to reflect lay conceptualizations of "good" teaching, and, conversely, they fail to reflect professional rationales for teacher behaviors.

Decisions Are Personal History Based

It would not be possible for preservice teachers to use imaginary scenarios as improvisations against which to judge the effects of a particular instructional strategy unless they had already discovered specific student reactions that they value enough to try to produce: unless they could compare imagined student reactions to those principles with a preestablished list of reactions they have already decided they want to foster or avoid reproducing in and with their future students. But where would such a list come from? How can Jeneane know that "I want my students to feel comfortable"; how can Lauren say, "I want students to get the tools they need, to see how nifty and exciting literature can be"; how can Jude determine, "Students need to see themselves in literature"; or Beth and Corinne maintain, "I want my students to know that I care"?

The conclusions which form the coherent criterion by which preservice teachers evaluate research-based ideas, these lists of specific student reactions that preservice teachers hope to produce or avoid, were developed prior to their entrance into programs of teacher education. They developed out of the day-to-day conclusions preservice teachers reached about teachers' actions while they were still elementary and high school students. Prior reflections about home and schooling events resulted in personal history-based belief systems which preservice teachers subsequently use as data for deciding whether Self-as-Teacher values Self-as-Student's reactions to the research-based instructional idea under consideration. Decisions that preservice teachers reach through dialogue between Self-as-Teacher and Self-as-Student are, therefore, characterized by their connections to preservice teachers' personal histories.

Decisions Reflect Lay Conceptualizations of "Good" Teaching

Because preservice teachers come to their formal studies of teaching with goals already in place, they also "know" what they need to learn in order to realize their preestablished teaching goals: how to be interesting, caring, nonauthoritative, and interactive. They expect our formal conversation to flow into the lay dialogues they have already in progress. When this is not the case, they often have difficulty seeing any value at all in what we are saying. They cannot fit it into the service of their preexisting goals.

For example, preservice teachers' lay conceptualization of learning as an issue of students' motivation makes them expect our professional principles to address methods for making classrooms "interesting." Conversely, their sense that "interestingness" adequately explains their own learning experiences creates little or no expectation for cognitive explanations of learning. Therefore, preservice teachers have difficulty understanding why we would want them to spend time thinking about instructional methodologies which assume that learning is an issue of cognition. The content of our professional talk is unexpected: it does little to further the line of thought which they were busily pursuing. Quite understandably, it fails to become part of their dialogic reflection strategy.

Decisions Do Not Reflect Professional Rationales For Teachers' Behaviors

Jeneane, a traditional preservice English major and a minority student, provided an especially accessible illustration of how her personal history and the interpretations she placed on her experiences of schooling developed into a set of goals against which she measured the value of course ideas. Her arguments defending her decisions about principles of reading, writing, and discussing as tools for learning the subject matter of English reflected only her own, personal history-based beliefs. Her arguments did not include at even a minimal level the research-based production arguments available to her through her course work.

To understand Jeneane's arguments, a bit of her personal history is necessary. Jeneane graduated from a high school where she was one of five black seniors. She had already identified "comfort" as a condition necessary to learning. She believed that teachers were responsible for creating an atmosphere where all students would be comfortable. She accepted that responsibility as her own and identified it as an explicit goal for herself as a teacher.

People have a tendency to open up or to talk more when they feel they are in a comfortable environment. . . . If you're not in an atmosphere where it's okay to be different, [where] it's okay [to ask a question], you'll probably

learn, but you won't learn as well. . . . I do remember my teachers getting upset and saying, "Look, I explained that." Sometimes I would have said more if I [had] felt more comfortable.

Jeneane had analyzed her experiences as a student and concluded that "comfortableness" was important to her. She believed that one way she as a teacher could help students feel comfortable would be to share authority with them. She hoped that students would feel free to ask questions in her classes, and she saw her own authority as a teacher as a potential barrier to their freedom to admit confusion or to express diversity of opinions.

As she encountered principles which stressed the power of writing as a tool for fostering students' thinking, Jeneane responded with approval. However, Jeneane's rationales, her practical arguments for defending her decision to include journals and ungraded student writing in her instruction—"I would use writing to learn for students to become comfortable with writing and to feel good about their own writing"—reflected none of the rationale for using writing to learn that had been developed in the course.

Jeneane's argument reflected only her original beliefs about what "good teachers" should do in classrooms. The voice of professional principle failed to enter her internal dialogue. What did enter was the method itself, stripped of its principled rationale and mapped creatively into Jeneane's own preexisting rationale.

Her emerging teacher's argument was based solely on her long standing, personal history-based, student conclusions about classrooms she had experienced. The potential third voice of professional principles of practice was absent even though it was liberally available to her. Jeneane came to value writing-to-learn strategies, not because they help students learn subject matter but because, as ungraded activities, they may help students feel "comfortable" about writing.

Jeneane also came to value discussion as a teaching format. The professional argument that students learn from peers was, however, again inaudible in her final argument supporting and defending her decision.

I want to have discussion in a circle so that it doesn't seem like I'm an authority figure and so that they can see that their opinion and ideas are just as important as mine. By having a classroom discussion, the students would [not] see me as an authority figure.

Jeneane saw whole-class discussions as a vehicle for demonstrating her willingness to share authority, as an object lesson illustrating her tolerance for diversity. This was a goal she had developed out of her conclusions about the elements of teachers' presentations

which seemed causal in her own experiences of studenting. Jeneane was uncomfortable in classrooms where tolerance for diversity was not explicit. She concluded, therefore, that her future students would be comfortable if she could find ways to demonstrate her tolerance for differences. Whole-group discussions mapped beautifully onto that preexisting goal.

Neither of Jeneane's goals or rationales is "wrong" or even undesirable. The point here is that in both cases, Jeneane's arguments for using these strategies resonate with her own preexisting, personal history-based goals rather than with the professional arguments her course work had made available to her. She used the course not as an opportunity to expand those goals but as an opportunity to locate teaching strategies that could serve her preexisting goals. Her enthusiastic acceptance of particular methods advocated by the course in no way indicated that Jeneane had enlarged her set of attributions about what teacher behaviors are causal in students' learning. Neither her strategies for reflecting about her future practice nor the content of her arguments changed. No third voice entered her dialogues between Self-as-Student and Self-as-Teacher. No third voice became incorporated into her reflection strategies.

Jeneane was not an isolated case. Other preservice teachers responded in much the same way, reacting positively to strategies because they saw in those strategies a way to foster goals they had already identified as important. Most adopted several writing-to-learn strategies but argued that these would be "interesting" to students.

Some preservice teachers decided that small-group discussions as well as writing activities would be good to use because "[Writing assignments] would be good for a change of pace," (Beth); "The discussion methods we were talking about would kind of throw kids for a loop," (Jeneane); "[Discussion] is a novel thing. If you're getting into a rut, it would be something good to do for a day. . . . It's good to shake them up a little bit," (Jane). As I pushed to have them explain why being different or creating a change of pace would be valuable, these preservice teachers explained that students become "interested" when class is unusual. And "interest" was universally a primary goal.

Preservice teachers' naturally occurring, lay form of reflective dialogue is apparently well insulated against interruption. The net effect of these dialogues is to exclude other would-be participating voices as unnecessary. As teacher educators, we have largely failed to recognize the ongoing dialogues we in effect attempt to modify. By failing to understand preservice teachers as thinking, dialogic beginners with lay concepts and lay skills of reflection, we have also failed to gain entrance into their internal dialogues.

Entering Preservice Teachers' Dialogues

As we think about the implications preservice teachers' dialogic forms of reflection have for our practices as teacher educators, two primary goals present themselves. First, we need to consider how we might gain access to the dialogues in the students of teaching with whom we work are already engaged. We need to find elegant, respectful ways of overhearing their ongoing, internal dialogues. Second, we need to develop patterns of participation in those dialogues. Only as participants can we hope to influence either the structure or content of preservice teachers' internal strategies for reflection.

Gaining Access

We cannot possibly influence or shape the arguments preservice teachers create or the decisions they reach through their reflection-like internal dialogues until we understand the content of those dialogues and arguments. Just as joining an ongoing conversation between two people requires standing close by for a few moments and listening to the flow of that conversation and then being brought up to date by the previous participants on the contextualized elements of those parts of the conversation we have already missed, so joining preservice teachers' reflective dialogues will require "standing close by" and listening for awhile. While it is relatively easy to walk up to two persons who are physically engaged in conversation and to stand and listen, it is far more difficult to find ways to overhear the internal dialogues preservice teachers have with themselves. I suggest three mediums.

Through biographical writing. Since the content of preservice teachers' dialogues is based on personal histories, it is important to develop mediums which allow us as teacher educators to become privy to those histories. Inviting preservice teachers to use journals (Knowles, 1991) and/or special course-work assignments to tell the stories, the critical incidents (Measor, 1985) of their lives, provides us with the opportunity to form a contextualized sense about what aspects of classrooms stand out as most important to them. Biographical writing externalizes and makes accessible the interpretations preservice teachers have placed on their experiences; it invites them to reveal the underpinnings for their belief systems, goals, and arguments about "good" teaching.

Biographical writing may be the primary tool available to us as we look for ways to overhear and then shape preservice teachers' thinking. A piece of writing allows us not only to "catch up" on the dialogue but to ask a question or make a response—to enter the dialogue.

Through discussion. Course work typically provides opportunities for students of teaching to engage in discussions about educational issues. These discussions make excellent

platforms for encouraging preservice teachers to explore not only what they think, but why they believe as they do.

We usually use discussions as mediums for encouraging preservice teachers to discover what they think. Seldom do we use discussions as moments when we can ask them to trace the histories of their beliefs. Discussions where we ask our students of teaching to support their points of view by making explicit connections to life history events and interpretations of those events are excellent mediums for us to use to overhear preservice teachers' thinking.

Making connections between today's belief and yesterday's classroom event is also useful to preservice teachers. Since preservice teachers are frequently only tacitly aware of the links they have developed between particular teacher behaviors and specific student responses—only tacitly aware of the influences their own histories have on their thinking—discussions can often prompt externalizations that are as revealing to the preservice teacher as they are to teacher educators. Such moments are opportunities for preservice teachers to "hear" explicitly and externally the implicit, internal connections they have forged.

Through analytical course assignments. One final medium for gaining access to the internal dialogues of preservice teachers is, of course, assignments. Course work is typically punctuated by written assignments and projects. We ask our students of teaching to do these, at least in part, because we hope to see how they are putting the pieces of our courses together.

But not all assignments are provocative of preservice teachers' belief systems. Assignments that invite preservice teachers to apply course ideas to real or imagined classrooms seldom elicit their rationales. In fact, assignments that require preservice teachers to apply the principles they are studying may actually discourage them from sharing with us the ways in which they believe the principles we are teaching may be weak.

Analytical assignments invite preservice teachers to share rationales. Asking them to describe a "good" teacher and then to explain why that teacher was indeed "good" (i.e., to analyze the behavior of a teacher whose practice they have reviewed as part of a case study either through video, observation, or reading or to analyze the strengths and weaknesses of the assignments practicing teachers give in classrooms) invites preservice teachers to make external the internal arguments they have developed as tools for evaluating ideas. Asking preservice teachers to write their analyses as literal dialogues between *Myself-as-Experienced-Students* and *Myself-as-Inexperienced-Teacher* (Bird, 1991) is especially ideal.

What we need are ways to overhear preservice teachers' dialogues. We need mediums that do not threaten our students and that are not evaluative in the traditional sense. We need strategies for making students of teaching comfortable enough to allow us to "stand nearby" while they talk. We need strategies that allow preservice teachers to contextualize their points of view for us so that we can hear both voices in which they reflect about their future practices.

Developing Patterns of Participation

Gaining access to preservice teachers' internal dialogues is the necessary first step to participation in those dialogues. The character of our participation, however, must not degenerate to mere static in the communication lines. It is not our goal to "scramble" preservice teachers' dialogues, that is, to interrupt them and introduce new content. This, in effect, is what we have been doing unawares—and ineffectively—for too long.

We must develop ways of interacting with preservice teachers that cooperate with the strategies they are already using for discovering their voices and roles as teachers. In order to develop those ways of interacting, the strategies themselves must be our guide.

By expanding the cast of reflective characters—diversifying the voice of Self-as-Student. Since preservice teachers' dialogues are heavily dominated by the voice of Self-as-Student, one way to participate in the dialogue would be to bring the perspectives of students other than Self into the conversation. There is some evidence to suggest that a diversification of the voice of Student occurs naturally for many preservice teachers. In some instances, they report using high school friends, students they have tutored, and siblings in the role of Someone-Else-as-Student. Knowles's (1990) conversations with intern teachers who had extensive life experiences beyond high school illustrate increased reliance on Someone-Else-as-Student to inform their thinking.

Course work opportunities for diversifying preservice teachers' Student point of view include tutoring, one-on-one interviews with high school students who are experiencing subject matter learning in ways that differ from the preservice teacher's experience, and the sharing of writing which describes in some detail preservice teachers' experiences as students learning subject matter that was difficult for them. Case studies of particular high school students might also be used to advantage. The important element to retain in all of these options is the authenticity of the Voice of Student.

By directly informing the voice of Self-as-Student—removing the need to imagine. Preservice teachers imagine what their responses as students might be to the instructional strategies we recommend. In the absence of actual experience as a student in a classroom

where the strategy was used, they create imaginary experience—scenarios. We can eliminate their need to imagine a reaction by inviting them as students to actually participate in models of the instructional strategies we hope they will adopt.

Since we understand that preservice teachers will quite naturally reflect about their experiences as students, we might follow these literal, concrete, in-class opportunities to participate as students with opportunities for them to "tell" their student reactions to an equally literal, concrete teacher. We might encourage them to describe for us as teachers their reactions as students. Then, we might invite them to share with us what Self-as-Teacher has learned from the experience that Self-as-Student has just had. By externalizing and supporting their typically internal reflective strategies in this way, we might become literal participants in their reflections and subsequent decisions about that instructional strategy. Their private, internal dialogues with Self cast in all the roles would thus become public, external dialogues where Self need only play one role at a time.

By externalizing our own teacher thinking—equalizing the voice of Self-as-Teacher. When preservice teachers observe classroom teachers, their inference-based versions of teachers' thinking assume relationships between teachers' behaviors and teachers' intentions that simply do not exist. This activity does not cease when they enter our classrooms and encounter us as teachers. Preservice teachers watch us just as they have watched classroom teachers all their lives. They assume connections between our behaviors and our intentions. And their assumptions about why we do what we do are likely to be fiction, mere "creations" of their imaginations.

Making our teacher thinking explicit would relieve preservice teachers of the burden of "creating" a voice where they lack accurate raw material to do so. Explaining out loud how we decided on particular formats, why we want them to form groups in a particular manner, how we know that we need to review—externalizing our own dialogues—would model for preservice teachers actual, nonfictionalized pieces of teacher thinking. Rather than leaving preservice teachers to continue to infer a teacher's point of view out of their Self-as-Student's point of view, we can directly shape the input that Self-as-Teacher uses to develop a point of view by adding explicit, accurate information about our intentions and goals to their dialogues.

By exposing explanations as inadequate—changing the content of the dialogue. Through course work, we have the opportunity to craft assignments, discussions, and activities that have the power to expose the limitations of preservice teachers' explanations for why something "works" in a classroom. For example, we can engage our students of teaching in highly interesting activities and then help them discover and admit that, while

these were indeed "interesting," they were also vacuous examples of procedural display (see Bloome, 1986). We can invite them to act out a teacher behavior they believe is linked to a specific student response and then use one another as feedback about the actual effects of that behavior. We can purposefully manipulate their experiences as students in our course in such a way as to invite them to compare their actual experience with what they imagined would be true. For example, we can model effective instructional practices like teacher-led support for students during reading, an instructional strategy most secondary preservice teachers regard as unnecessary and "boring." Their actual experience as students with an instructional strategy should differ substantially from their imagined experience.

Conclusion

Preservice teachers are not internally silent, waiting on professional points of view to "tell" them what to believe and how to act as teachers. They are vibrant, active, meaning-making thinkers with a long-standing conversation about "teaching" already in progress when we first meet them. Our assumption that they will come to their professional study of teaching eager to adopt our points of view about classrooms, ready to question their past experiences, and able to reinterpret those experiences has not proved to be true. Preservice teachers' assumptions that their study of teaching will be a series of courses where they learn how to be interesting, caring, interactive adults have not been true either.

However, since we have no control over their assumptions but we do have at least some control over our own, it is incumbent upon us to enter the dialogues of our students of teaching and work with their assumptions, acknowledging them before we try to reshape them. We must assume the conversational responsibility of reorienting to another point of view (i.e., of picking up on the context of someone else's thinking and managing someone's potential confusion) as they try to understand why we talk and think as we do.

Ignoring preservice teachers' internal dialogues is more than rude or even ineffective; it asks them as students of teaching to make the entire conversational effort. It leaves them to continue teaching themselves. Only by participating in their dialogues, rather than asking them to learn from our monologues, can we hope to influence their arguments and so shape the discourses of their reflection.

References

- Berliner, D. C. (1986). In pursuit of the expert pedagogue. *Educational Researcher*, 15(7), 5-13.
- Bird, T. (1991, March). *Making conversations about teaching and learning in an introductory teacher education course*. Paper presented at the annual meeting of the Michigan Academy of Science, Arts, and Letters, Ypsilanti.
- Bloome, D. (1986). Building literacy and the classroom community. *Theory Into Practice*, 25, 71-76.
- Book, C., Byers, J., & Freeman, D. (1983). Student expectations and teacher education traditions with which we can and cannot live. *Journal of Teacher Education*, 34(1), 9-13.
- Bullough, R. V., Jr. (1990, April). *Personal history and teaching metaphors in preservice teacher education*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Carter, K., & Doyle, W. (1987). Teachers' knowledge structures and comprehension processes. In J. Calderhead (Ed.), *Exploring teachers' thinking* (pp. 147-160). London: Cassell.
- Clandinin, D. J. (1985). Personal practical knowledge: A study of teachers' classroom images. *Curriculum Inquiry*, 15, 361-385.
- Clark, C., & Lampert, M. (1986). The study of teacher thinking: Implications for teacher education. *Journal of Teacher Education*, 37, 27-31.
- Doyle, W. (1977). Learning the classroom environment: An ecological analysis. *Journal of Teacher Education*, 28, 51-5.
- Doyle, W. (1990, April). *Teachers' curriculum knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Feiman-Nemser, S., & Buchmann, M. (1986). Pitfalls of experience in teacher preparation. In J. D. Raths & L. G. Katz (Eds.), *Advances in teacher education* (Vol. 2, pp. 61-74). Norwood, NJ: Ablex.
- Fenstermacher, G. D. (1986). Philosophy of research on teaching: Three aspects. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 37-49). New York: Macmillan.

- Grossman, P. (1988, April). *Learning to teach without teacher education*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Grossman, P. L. (1990, April). *Knowing, believing, and valuing: The role of subject matter*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Grossman, P. L., & Richert, A. E. (1986, April). *Unacknowledged knowledge growth: A re-examination of the effects of teacher education*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American Educational Research Journal*, 26, 160-190.
- Holt-Reynolds, D. (1988). *Ideas in the air*. Unpublished manuscript, University of Michigan, Ann Arbor.
- Holt-Reynolds, D. (1990). *Preservice teachers' practical arguments for decisions about content area reading: The influences of personal histories*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.
- Holt-Reynolds, D. (1991, February). *Practicing what we teach*. Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans.
- Knowles, J. G. (1988, April). "For whom the bell tolls": *The failure of a student teacher and insights into self, teaching, and teacher education*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Knowles, J. G. (1989). *Beginning teachers' biographies and coping strategies: An exploratory case study*. Unpublished doctoral dissertation, University of Utah, Salt Lake City.
- Knowles, J. G. (1990, October). *Entering preservice teachers' internal dialogues: The power of reflection to shape practical argument*. Paper presented at the 12th Conference on Curriculum Theorizing and Classroom Practice, Bergamo Center, Dayton, OH.
- Knowles, J. G. (1991, February). *Journal use in preservice teacher education: A personal and reflexive response to comparisons and criticisms*. Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans.
- Knowles, J. G., & Horfler, V. R. (1989). The student teacher who wouldn't go away: Learning from failure. *Journal of Experiential Education*, 12(2), 14-21.

- Knowles, J. G., & Holt-Reynolds, D. (in press). Shaping pedagogies through personal histories in preservice teacher education. *Teachers College Record*.
- Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- Measor, L. (1985). Critical incidents in the classroom: Identities, choices and careers. In S. J. Ball & I. V. Goodson (Eds.), *Teachers' lives and careers* (pp. 61-77). Lewes, England: Falmer Press.
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Zeichner, K. M. (1980). Myths and realities: Field-based experiences in preservice teacher education. *Journal of Teacher Education*, 31(6), 45-55
- Zeichner, K. M., & Tabachnick, B. R. (1981). Are the effects of university education "washed out" by school experience? *Journal of Teacher Education*, 32(3), 7-11.