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ABSTRACT

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Abstract

The realities of teacher preparation are not self-evident. Researchers, educators, and policymakers need a framework to describe what goes on in teacher education programs and determine how they do or do not measure up as preparation for teaching. This paper presents such a framework. The framework rests on a conception of the central tasks of teaching and the major sources of influence on teacher learning during formal preparation. The framework allows us to relate empirical realities of learning to teach with a view of worthwhile ends and defensible means for teacher education. To show how the framework helps in describing and appraising opportunities to learn and learning outcomes, the author will present illustrative findings from a longitudinal study of teacher preparation and learning to teach.

KNOWING, THINKING AND DOING IN LEARNING TO TEACH: A RESEARCH FRAMEWORK AND SOME INITIAL RESULTS[1]

Sharon Feiman-Nemser
Margret Buchmann[2]

Over 20 years ago, Sarason, Davidson, and Blatt (1962) called teacher preparation an "unstudied problem" and urged researchers to look at what actually went on inside programs as a basis for understanding the effects on teachers. Ten years later in a National Society for the Study of Education yearbook on teacher education, Fuller and Bown (1975) recommended that researchers start trying to answer the basic descriptive question, "What is out there?" And most recently in her chapter on teacher education research in the Handbook of Research on Teaching, Lanier (1986) emphasizes the need for descriptive-analytic studies of the teacher education curriculum and of the thinking and learning of teacher candidates. Without systematic descriptions of what is taught and learned in formal preparation and field experiences, we cannot understand what professional education contributes to teachers' learning or the ways that learning can best be fostered. That means we need to understand the following:

1. What teacher educators teach;
2. How opportunities for learning in the preservice curriculum are structured;
3. What prospective teachers make of these opportunities to learn over time;

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[1]An earlier version of this paper, co-authored by Deborah Ball and entitled "Constructing Knowledge About Teaching: Research in Progress on Beginning Elementary Teachers," was presented at the annual meeting of the American Educational Research Association, San Francisco, April 1986.

[2]Sharon Feiman-Nemser is the coordinator of the Knowledge Use in Learning to Teach Project. Margret Buchmann, a senior researcher with that project, is also the coordinator of the Conceptual Analytic Project. Both Feiman-Nemser and Buchmann are associate professors of teacher education at Michigan State University.

4. What happens when student teachers take their learning from the university setting into the classroom; and

5. How these different experiences do or do not measure up as a preparation for teaching.

These questions shape the Knowledge Use in Learning to Teach study (KULT) which looks at the ways personal biography interacts with the preservice curriculum to influence opportunities to learn and learning outcomes during teacher preparation.

We began the study with grounded assumptions about the preservice phase of learning to teach (Feiman-Nemser, 1983). Teacher preparation is a brief period of formal study preceded by a long period of informal learning through teacher watching and classroom participation as pupil and succeeded by another period of informal on-the-job learning. Effective teacher preparation needs to pay attention to the prior beliefs of candidates and also prepare them to learn from their teaching in ways that go beyond the typical trial-and-error approach and reliance on personal preference. The possibility that teacher education can make a difference implies that what candidates bring to their studies by way of personal beliefs and dispositions may not be adequate and can be altered. It also suggests that teacher educators have worthwhile knowledge and skills to impart.

One goal of the study is to describe and analyze what prospective teachers learn in relation to what they are taught, both at the university and in the field. Here we respond to the need for more systematic knowledge about the preservice curriculum and the sense future teachers make of it. A second goal is to appraise the content and import of the lessons learned and consider if and how they add up as preparation for teaching. Here the project goes beyond description to consider what ought to occur during preservice preparation.

To accomplish these goals of description, analysis, and appraisal, we have developed a framework that allows us to relate empirical realities of teacher preparation and learning to teach with a view of worthwhile ends and defensible means in teacher education. The framework integrates empirical description and analysis with questions of value and policy in teaching teachers (see Scheffler, 1985, for a discussion of the role of such frameworks in educational research). By using the framework we try to bring greater clarity and system to the subject of teacher education curriculum. In this paper, we set out the framework, briefly describe our study, and then show what the framework allows us to see by presenting illustrative findings from our research. The examples from cases bear on the issues of academic learning and equity in elementary schools.

Framework of Study

The framework rests on a conception of the central tasks of teaching based on the distinctive work of teachers rather than on any particular ideology. This starting point leads us to posit a major goal for preservice preparation--helping prospective teachers make a transition to "pedagogical thinking." The sorts of changes involved in this transition go beyond the acquisition of subject matter knowledge and technical skills. We also describe major sources of influence on teacher learning during formal preparation and how they help or hinder that transition. These sources of influence include the personal capacities, temperaments, and entering beliefs of teacher candidates and their opportunities to learn in professional courses and field experiences, especially student teaching.

Central Tasks of Teaching and Teacher Preparation

What distinguishes teaching from other helping professions is a concern with helping people learn worthwhile things in the social context of classrooms. Whatever else teachers do, they are supposed to impart knowledge and see that pupils learn (Wilson, 1975; Peters, 1977; Buchmann, 1984). To promote learning, teachers must know things worth teaching, consider what is important, and find ways to help students acquire skills and understandings. This calls for principled and strategic thinking about ends, means and their consequences, as well as consideration of the skills and motivation to implement particular courses of action.

Since teachers cannot observe learning directly, they must learn enough about people to detect signs of understanding and confusion, feigned interest and genuine absorption (Dewey, 1904/1965). Because teachers work with groups of students, they must also consider the learning needs of many individuals as they orchestrate the social and intellectual sides of classroom life. Good teachers at their best moments manage both sides together whereas novices usually cannot give them equal attention at the same time. By concentrating on the interactive side of classroom teaching, however, student teachers may learn to manage pupils and classrooms without learning to teach (Dewey, 1904/1965).

Pedagogical thinking and acting. Although the lengthy personal experience of schooling provides teacher candidates with a repertoire of beliefs and behavior to draw from, it does not prepare them for the central tasks of teaching. Looking at teaching from the perspective of a pupil is not the same as viewing it from a pedagogical perspective, that is, the perspective of a teacher. Prospective teachers must learn to look beneath the familiar, interactive world of schooling and focus on student thinking and learning.

Perhaps most difficult is learning to shift attention from oneself or one's subjects to what others need to learn. In The Art of Teaching, Highet (1966) describes what this shift entails:

> You must think, not what you know, but what they do not know; not what you find hard, but what they will find hard; then, after putting yourself inside their minds, obstinate or puzzled, groping or mistaken as they are, explain what they need to learn." (p. 280)

There is a big difference between going through the motions of teaching--checking seatwork, talking at the board, assigning homework--and connecting these activities to what pupils should learn over time and checking on what they have actually understood. Helping prospective teachers recognize that difference and laying the groundwork for the orientations and skills of pedagogical thinking and acting are central tasks of teacher preparation.

Teaching in a multicultural society. Puzzling about what is going on inside the heads of young people is difficult enough when teachers and students share a culture; it becomes even more complicated when they do not. Yet teachers must assume some responsibility for equal access to knowledge. This requires, in addition, that they examine their own beliefs about the capacities and needs of different pupils and pay attention to the effects of various teaching strategies on them. As Soltis (1981) explains, teaching requires "building bridges of reasonableness" around knowledge and among people who,

> by reason of ethnic group, social class, developmental stage, genetic endowment, or even idiosyncratic accident, live in a world to some degree different from the one we, as teachers, are trying to get them to see, understand, and participate in (p. 111).

Prospective teachers are not likely to approach their teacher education with these orientations. Consider the qualities they think are important for

teaching and their expectations about what they will learn from their professional studies. Elementary education majors typically cite warmth, patience and a love of children as personal qualities that will make them effective teachers. They expect to teach youngsters like themselves in schools that are like the ones they attended. Often they think that common sense and memories from their own schooling will supply the subject matter necessary to teach young children. They most hope to learn instructional techniques and methods of classroom control through formal preparation.

Teacher educators cannot ignore the expectations and personal qualities of candidates but must relate them to a view of teaching and learning to teach in which student understanding is central. They must help prospective teachers connect their reasons for teaching to the central tasks of teaching and help them see that decisions about content and pedagogy have social consequences for which teachers, in part, are responsible (Scheffler, 1958).

Sources of Influence on Teacher Learning During Teacher Preparation

Most models of learning to teach emphasize the role of a single source of influence on teacher learning. For example, theories of teacher development focus on individual teachers' capacities and concerns that presumably unfold in a succession of stages through experience over time (e.g. Fuller, 1969). Theories of teacher socialization emphasize the influence of the school setting in which teachers are influenced by colleagues, pupils, and the work itself (e.g. Waller, 1932). Theories of teacher training highlight a process of practice and feedback meant to equip teachers with a repertoire of skills and strategies (e.g. Joyce & Showers, 1980).

These models have no clear connection to the central tasks of teaching and teacher preparation. The developmental and socialization accounts do not accord much of a role to teacher educators, focusing, instead, on the teacher

as a person and the workplace as a setting. The training model presupposes a limited idea of teacher performance and treats learning to teach as an additive process that largely bypasses person and setting. None of the models illuminates the role of prior beliefs or "preconceptions" in teacher learning. Nor do they take into account the "ecology" of teacher education--the influence of program features, settings, and people as they interact over time (Hersh, Hull, & Leighton, 1982). Failure to attend to this "ecology" is a major reason for the unsatisfactory state of knowledge about teacher preparation and learning to teach (Zeichner, 1985).

In the Knowledge Use in Learning to Teach study, we examine the thinking of future teachers in relation to the content of the preservice curriculum and the context of the schools in which they work as student teachers. Because opportunities to learn and learning outcomes result from the interactions of persons, programs, and settings, we focus our work on describing and analyzing the patterns of interaction and influence over time. We briefly describe each source of influence in what follows.

Persons

We have already mentioned the fact that prospective teachers perceive and interpret the preservice curriculum in terms of their preconceptions about teaching and learning to teach. Although many aspects of the "apprenticeship of observation" (Lortie, 1975) may be shared (e.g., typical modes of instruction, classroom control, and curriculum content), teacher candidates also have personal dispositions, orientations, and experiences relevant to teaching. Qualities such as social and intellectual skills and expectations about life and work affect the way they approach their preparation and influence what they learn from it.

Programs

Typically, teacher education programs rely on the arts and science faculty to provide teachers with general education and subject matter knowledge. Education courses are the most formal and systematic part of learning to teach. In teacher education courses future teachers are exposed to the knowledge presumed to be relevant to teaching. Foundations courses generally draw their content from the disciplines undergirding education (e.g. psychology, sociology, philosophy) and, more recently, from research on classrooms and teaching (Smith, 1980). Methods courses focus on approaches to teaching different school subjects.

Some courses have associated field experiences during which teacher education students "apply" the knowledge they are learning to teaching situations. What teacher candidates learn in their education courses, however, depends not only on the knowledge they encounter but also on the way those encounters are structured and the messages they convey about teaching and learning to teach.

The "Field"

As a model of classroom life and an arena of practice, the "field" influences the boundaries and directions of what can be learned through its characteristic interactions and curriculum. Cooperating teachers set the affective and intellectual tone in classrooms and demonstrate ways of working with pupils. They can also influence what student teachers learn by the way they conceive and carry out their roles as teacher educators (e.g., by the responsibilities they assign and the feedback they offer). The ethos of the school and the norms that govern faculty interactions are other potential sources of influence on teacher learning. Teachers often regard student teaching as the most valuable part of their formal preparation.

By conceptualizing central tasks of teaching and teacher preparation and by identifying sources of influence on teachers' learning, our framework gives us a way to study the preservice phase of learning to teach. It focuses attention on the extent to which future teachers become oriented to the distinctive work of teaching during teacher preparation and begin to develop the understandings and practical skills that their work requires.

The Knowledge Use in Learning to Teach Study

Between 1982-84, we followed six elementary education students ("focal students") through two years of undergraduate teacher education. The students were enrolled in two contrasting programs. The Academic Program emphasized theoretical and subject matter knowledge in teaching. Many of the courses stressed teaching for understanding and conceptual change. Students had limited field experiences prior to student teaching. The Decision-Making Program emphasized generic methods of teaching and research-based decision making. Instructors stressed procedures for planning. Much of the program took place in an elementary school where students spent time in classrooms aiding, observing, and teaching lessons.

Each term we interviewed the focal students about what they were learning in their courses and field experiences and how they thought that would help them in teaching and learning to teach. Our interviews probed specific features of the courses in each program and the teacher candidates' thinking about what they were learning. Each term we observed a "core" course in each program (e.g., a foundations or methods course developed especially for this program), taking field notes about the content, activities and interactions. We focused on comparable components (e.g., a pair of educational psychology courses, pairs of methods courses). Besides providing a common referent for

the interviews, the observational data were used to describe and analyze the preservice curriculum (see, e.g., Ball & Feiman-Nemser, 1986).

During student teaching, each of our focal students was paired with one researcher who visited weekly to observe and document the student teacher's activities in the setting. We kept notes of informal conversations with the student teachers, their cooperating teachers, and university supervisors; we also conducted two more formal interviews with the teacher candidates before and after student teaching.

Illustrative Findings

To show how our framework allows us to describe and appraise opportunities to learn and learning outcomes in teacher preparation, we present two sets of illustrative findings. In each set, we describe and analyze how a particular issue comes to the fore in the context of a particular occasion for learning to teach. The issues--equity and the teaching of academic content--derive from our conception of the central tasks of teaching. The occasions--education courses and field experiences--become opportunities to learn through the interaction of program, person, and setting.

The first illustration pairs Janice[3], a student in the Academic Program, with Sarah, a student in the Decision-Making Program. Drawing on data from the first year of the study, it focuses on how personal history influences the way beginning education students make sense of their professional courses (see Feiman-Nemser & Buchmann, 1986a). The example shows how two students from different programs form ideas about teaching related to issues of equity.

The second illustration draws from our cases of student teaching where we explore the influence of program features, settings, and people on the

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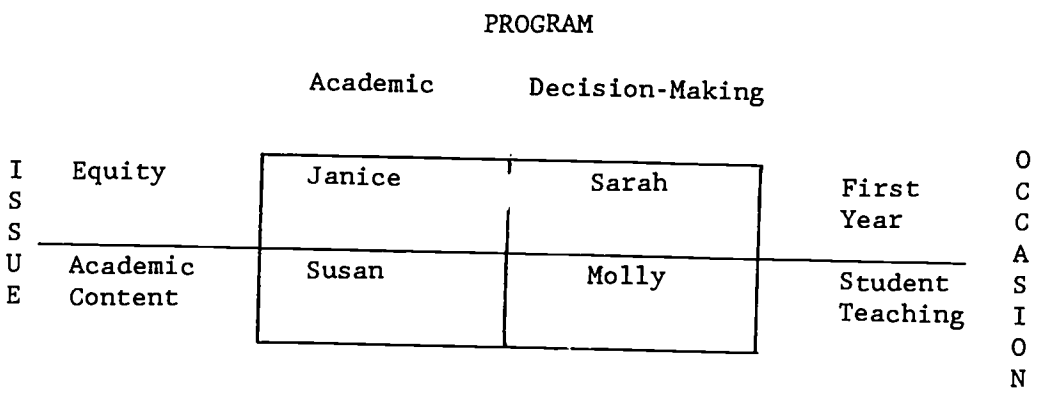
[3]All names are pseudonyms.

experience of student teaching and its effects (see Feiman-Nemser & Buchmann, in 1986b). We pair Susan, a student in the Academic Program, with Molly, a student in the Decision-Making Program. We consider one teaching episode that elicited considerable pride in each student teacher, comparing their approaches to teaching academic content. For easy reference, these comparisons are schematized below.



Janice: Bringing Things Home

Like most people, Janice already had a sense of what teaching was all about when she began her preparation. Her preconceptions derived from her own school memories and from being an older sister in a large family. In her first interview, Janice spoke with pride about helping her brother and sister of 12 and 13 years learn how to drive the family tractor:[4]

> Because we live on a farm and they're about the age that they can learn how to do this--and so I had to go through and show them every little thing about the tractor, because it's old and there's certain little things they have to do just to get it started.
>
> And I saw that, you know, I really got into showing 'em and explaining it to 'em so that when the were all done, they would be able to do it as well as I and it made me, I was

[4]All excerpts are taken from interviews with subjects in our study. Except for occasional structuring into paragraphs and deletions of repetitions, they are unedited.

> really pleased, I liked doing it, you know. . . . And that made me think, " Well, I can, I can keep going, I can do this, it won't be that hard."

Janice's mother wanted her girls to go to school so that they could support themselves if anything happened to their husbands. Her mother pushed her to read and to go to college even though Janice did not feel ready or interested. The academic orientation of Janice's program reinforced her personal concerns about readiness and reading. For instance, the Academic Program required difficult reading during the first year and Janice could not understand why, nor see how, the reading would help her learn to teach. The lack of opportunities to link key ideas in the program (such as teaching for understanding and access to knowledge) to classroom experiences was hard for Janice who needed to see things to understand them.

When asked by an interviewer to describe an assigned reading that particularly stood out for her, Janice selected an article by Jean Anyon (1981) that critiques the inequitable distribution of school knowledge by social class and school location. She summarized Anyon's argument as follows:

> She dealt with class structures and the different social settings in schools. Some schools are like a working class; some are middle. . . . It was interesting, you know, the aspects of what, what each school wanted for their students and the way they learned.

Janice connected what she considered information about schools to a reading assignment for another class on the topic of student motivation:

> I was reading that low-class people are the kids and students from, from like ghettos and urban areas. They, their goals are really present-oriented, so you have to work out the success, so it's every day they are achieving immediate type of success.

The notion that children from ghettos and urban areas are more oriented toward the present and require immediate reinforcement to get them to do school work was communicated in a methods class on teaching elementary math. Janice

also got the idea that these children are slow learners and underachievers because inner-city children were discussed in the part of the course devoted to less successful students.

In the same interview, Janice talked at length about Mexican migrants who worked on the family farm:

> One thing I always noticed that, when I was going to school and everything, the kids, you know, they weren't all that interested in going to school. A lot of times they wouldn't show up, 'cause they would just turn around and like, maybe a couple of weeks go back to Texas, and so even the parents didn't seem to pressure 'em into going to school here.

Janice's experiences as a youngster made what she heard in her math methods class ring true. For her, the experience with migrant children vividly exemplified the apparent lack of interest in school and learning that she expected some groups of children to have.

Finally, Janice integrated discussion questions from her curriculum class with her thoughts about minority children. In doing so, she equated school location, social class, and low achievement, as well as the importance and meaning of poetry, with the use poetry may have for some people:

> One of the things Kelly was mentioning to us, "What is the importance of poetry to an, you know, a low-class, a kid that is from the ghetto?" . . . A low achiever and things like that, poetry maybe doesn't mean anything to him, and does it, really? Is it that important to him? What good is he gonna, you know, how is he ever gonna use poetry in the class structure he's in?

This is a hard pedagogical question. Janice wavered between pursuing the problem and dismissing poetry as unimportant in some schools:

> It made me think about it, you know, is it really necessary, or, you know, how would you stress the importance of teaching poetry to somebody that didn't want to learn it? It was really hard, and I couldn't. . . . It's hard to, it was hard to, just put that into words. . . . And, you know, you can interest them through the humor of poetry and interest them in some idea, write poetry on some area that they're interested in. You know, you can do poetry with cars and things like that. But, it just made me think that, maybe, some things maybe aren't

> important, and maybe we should stress other things. Certain things should be stressed in certain schools, depending on where they're located.

This example shows how Janice put together past experience with things she picked up in her formal preparation--reinforcing earlier beliefs that conflict with equality of educational opportunity and reversing the intended message of her assigned reading on the inequitable distribution of school knowledge.

Sarah: Helping Children In Need

Sarah, by contrast, had always liked to read. Black herself, she grew up in a small midwestern city and was inspired to become a teacher because of all the stories she had read about teachers who had helped "poor black kids in the ghetto" to make it. Somewhat older and more experienced than other students in her program (she had studied journalism and had a baby that she brought up herself), Sarah believed that her maturity and ability to help others would be an asset in teaching. To her, teaching was "kinda like being a social worker . 'cause you're shaping that child's life."

One of the more se llenges for Sarah during her first year was trying to "teach comprehens to a black pupil in her reading group. Before her first readin urse, Sarah said she "didn't even know what comprehension was." After e sive reading the subject, she learned that "comprehension is understanding t you are reading, getting some meaning out of it":

> If a child reads the story to you out loud, if he doesn't read every single word or if he reads a "this" for a "that," it's not a big deal. The child would know that word when it came up in context. . . . He was leaping ahead in his thinking process and reading for what the rest of the sentence was going to tell him or the rest of the story versus reading specifically each word and getting nothing out of it.

Sarah had learned in her program that comprehension has to do with the thought processes in a child's mind. But, she added:

> Actually putting it [comprehension] into practice is the hard part. I could tell you what comprehension is, I can give you examples of comprehension, but when it comes to teaching, I know some methods, with all the material we've been reading. . . but I'm wondering, "Am I really teaching comprehension or what?"

Sarah confronted this difficulty directly while working with her focus pupil, who could recognize words and read books from the library but could not talk about what she was reading. "It's frustrating," Sarah explained,

> because we have to write down what we've learned about the student in our [reading] group and what we think we've taught 'em and I just don't know. I'm frustrated because I am trying to find out why she's so withdrawn.

The day Sarah's pupil was supposed to give her book report was a day when the reading methods instructor observed Sarah. Following the advice of her instructor, Sarah had abandoned the basal reader and given students a chance to read books of their own choosing. She assumed this would motivate them to read for meaning and write stories on their own. But her student did not respond.

> I had to keep asking and asking the question and the instructor says she doesn't see the purpose, that she's not motivated but what do you do to motivate her? I don't know.
>
> I take them to the library and they've gotten books that they want to read and I just threw away my whole lesson. I said all we're going to do is enjoy reading and we're going to write about it and you're going to tell me about a story you've read and you're going to write a story 'cause I wanted to see if the student, given a chance to write about a story, would be able to tell me about it.

Disappointed that her actions did not seem to improve the motivation or comprehension of this student, Sarah blamed herself. "I don't think I helped her at all." She suspected that the child had special problems but also recognized that she, as a beginning teacher, "didn't have the background or the knowledge to test her right."

By her own testimony, Sarah had a personal interest in the educational advances of black children that shaped her commitment to teaching. When confronted with the kind of student she wanted to work with, however, she did not know how to help her as a teacher.

Equal Access to Knowledge: Comparing Sarah and Janice

Sarah may seem closer than Janice in connecting issues of equity and diversity to the responsibilities of teaching, but actually both candidates relied on personal experience that is limited and subject to bias. Janice's home experiences shaped how she made sense of what she read in her education courses. Putting pieces together based on unquestioned assumptions prevented her from seeing unequal access to knowledge as a problem teachers need to address. Clearly she did not understand the main point of Anyon's article (1981). Because no one challenged her interpretation, her stereotypes were elaborated and legitimized--ironically, through professional preparation. Sarah was personally disposed toward helping children in need, but general ideas about comprehension promoted by her reading methods instructor did not go far enough. Sarah needed specialized knowledge to analyze the problems and necessary skills to implement alternatives under guidance. Her own good intentions and general advice from the program were not enough.

Susan: Doing "Meaningful" Things in the Classroom

Like Janice, Susan was enrolled in the Academic Program in which she was regarded by the faculty as one of the more capable students. Even before student teaching, she began incorporating some of the key program ideas into her thinking about teaching. For example, in describing her work with a reading group, she revealed concerns and expectations about student thinking and learning:

> I'm trying to make the kids connect what they're doing with something they should be learning. I don't want them to just read and then sit down and close the book without thinking about "Why did we read this story? What did I get out of it? What's it saying to me? What good has it done me?"--that sort of thing.

Susan's goals and expectations for student teaching revealed that she saw her responsibilities in terms of the central tasks of teaching. She said she wanted a chance to plan lessons in all the content areas and be responsible for pupils' learning over time. She described her ideal classroom as a place where pupils were busy and happy learning through "fun" activities and where the teacher was liked and respected.

Susan's notion of learning through "fun" activities reflects her interpretation of an important message in the Academic Program: Good teachers do not rely on textbooks. She translated this message into a dichotomy between "meaningful" learning activities, usually created by the teacher, and "boring" seatwork, usually based on workbooks and dittos. Susan wrote in her student teaching application that she wanted to "get away from textbooks and learn to use the community as a resource."

Susan's cooperating teacher exemplified many of the commitments of the Academic Program. Bob involved his third and fourth graders in challenging projects and was especially skillful at giving clear explanations, asking questions and probing students' thinking. Overall, he gave Susan a lot of responsibility. Unfortunately Susan did not perceive Bob as a model because his approach to discipline was, in her words, "too laissez-faire." Also he did not talk much about teaching with Susan.

Susan's Prideful Occasion

Of all the things Susan did during student teaching, she was most proud of her book-making project. She thought that having students make their own

books would motivate them to write because then their writing would be personally meaningful. "We made the books first before we wrote the story," she explained. "That way they saw a need to fill in these pages. There were all these blank pages; this beautiful book was all theirs and they could put anything in it they want."

To initiate the project, Susan had students write letters to their parents saying that they would be making books in reading and asking if they could bring a piece of material for the cover. An entire school day was devoted to cutting cardboard, ironing the material into the cover, and putting the books together. The children spent much time chatting and standing around, waiting for Susan or Bob to help them.

Once the books were made, Susan told the students that they could write anything they wanted "as long as it has an idea behind it." Without explaining what this requirement meant or giving examples, Susan changed the formula, stressing that "every story has a problem and a solution." To illustrate this point, Susan tried using a "story starter." She gave the class a story title, "The Day I was a Popsicle"; and together they thought up problem situations a popsicle could get into and figured out solutions. It was not clear how this technique, which Susan had picked up in her children's literature course, supported her vague advice about story structure or her injunction that stories must have ideas.

Students worked on their stories in class and at home without getting criticism or advice. Susan did not discuss with students possible problems and solutions in the stories nor make any effort to identify and clarify student ideas. Spelling was the only standard applied to the final product, and even that was left to the children who were supposed to check each other's work. Even before all the students had finished their stories, Susan turned the class back to Bob. As far as she was concerned, the project was over.

Bob, however, saw a way to carry it farther. Pulling a chair up to the front of the room, he asked those who had finished to put their books on a side table so that others could read them. Meanwhile, he invited one of the students to come sit beside him and read his story aloud. During the reading, Bob noticed a misspelling and sent the student to the dictionary saying, "This is really great, but can we make it better?"

Molly: Being a "Creative" Teacher

Molly calmly looked forward to student teaching. In her program, she had a reputation for being "creative" and being "her own person." The Decision-Making Program had provided her with ample and varied classroom experiences which she expected to build on. She hoped to bring together all the things she had learned in her program, from all the different sources--classroom experiences, ideas, and concepts from courses. To Molly, being able "to put it all together" was the test of what she really knew. Her learning goals during student teaching were compatible with her program's emphasis on "knowledge use" and "teacher decision making."

Molly's cooperating teacher, Suzy, was a skillful manager, and Molly was impressed with her ability to anticipate what might happen and step in immediately when things got out of hand in class. At the beginning of the year, Suzy gave a lot of attention to "grooving" her second graders, expecting them to sit still and upright with their eyes on the teacher and to listen attentively. She was concerned that children follow directions, follow them when given, and follow them completely. These goals fit with the ethos of control that characterized Harrison school.

Right from the start Molly took on an equal share of the classroom routines in math drills, spelling tests, and reading skill instruction. Within these contexts, she developed a teacherish persona, mirroring her cooperating

teacher's bland and authoritarian comportment. She spoke in a slow and wooden manner, demonstrating little evidence of thought or involvement on her part. Molly was not happy giving skill instruction "when kids can't immediately see the application." She felt that the children were "skilled to death in reading."

Molly's Prideful Occasion

Molly became her most animated self teaching an elections unit she developed herself. To decide on content, she drew on her everyday knowledge, illustrated by the vocabulary words and definitions which she got "out of her own head." For instance, she defined "power" as "when you can do things your way"; "voting" as "giving your support"; "opinion" as "what you yourself believe." She assumed that children would be interested in the fact that the president must be a U.S. citizen, at least 35 years old, that he earned $200,000 a year, and could do, as Molly put it, "whatever he wanted." She also thought children ought to know about "gimmicks" for swaying opinions such as television commercials, buttons, signs, and radio announcements.

Aiming for a tangible outcome to give her a sense of completion and to help the children remember what they had studied, Molly decided to have the children make a book with a ditto sheet for every lesson. The dittos, for instance, required coloring the American flag and matching words to definitions. For every lesson, Molly also wrote out vocabulary words, objectives, and an abbreviated script.

Molly drew on her dramatic talents and knack for working with visuals to plan the unit. She came up with the idea of using puppets (President Richard and Mr. Martin) for candidates and picked "issues" that she thought would be meaningful to the children (e.g., the lunch menu, recess). She realized that what she was teaching about presidential elections was simplified and

not true to reality, but she believed the students could transfer what they learned to other elections.

A description of the last lesson in the unit conveys what Molly did and the way that the children responded. To start the lesson, Molly pretended that one of the fuzzy blue puppets, President Richard, was calling, "Hey, take me out of the closet." Going over to the cupboard, she took the puppet out, saying "Hello everybody." The children called back, "Hi, President Richard." The puppet said, "I hope you'll vote for me." When Molly got the other puppet out, the children greeted it, too: "Hi, we are going to vote for you."

The children were noisy and excited, and Molly interjected a few warnings. "I can't talk over people. Robert, go to the other side of the room. You know how to behave. Sam, you have your warning. Does anyone know what the word 'votes' means?" One girl said, "If you pick one person and they are 35, that means you vote." Molly let this confused response pass and put down the right answer: "Vote is the way you support the candidate."

When it was time to vote, Molly said, "I am looking for two people with good behavior who can go to the voting booth. Who knows what a voting booth is?" She wrote the definition on the board: "Voting booth is where you vote." Then she pantomimed stepping into a booth, closing the curtains, and stepping out. Watching her, the cooperating teacher spontaneously remarked: "Isn't she fun to watch?"

Teaching Academic Content: Comparing Molly and Susan

Both Susan and Molly responded to the character and content of schoolwork but in different ways. Susan aimed for meaningful activities and she tried to transform schoolwork into something personally involving for students. She saw the book-making project as a substitute for "boring seatwork" and

reading from the basal. To work toward meaningful activities, Susan drew from the messages of the Academic Program and her own limited academic knowledge. Molly responded to the character of the setting as well as the character and content of schoolwork by finding ways to enliven activities for herself and her students. To develop the elections unit, she drew from common sense and her personal talents.

Molly and Susan both stopped short of serious engagement with academic content. Intent on getting away from texts, their substitutions were not successful. Susan structured activities that students liked without knowing how to carry them forward to produce worthwhile learning. Book making never became transformed into serious story writing. Molly tried to do "creative" things that often centered around displaying her own talents. In doing her elections unit, however, she lacked a grounded understanding of the political process or children's interests.

Both Molly and Susan were ready to learn, but no one used student teaching to help them see how to promote understanding or figure out what counts as a "worthwhile learning activity." Both received glowing recommendations from their cooperating teachers that reinforced their sense of being successful as teachers. They did not go very far in developing their capacities to teach academic content, nor were they not helped to acquire the capacities and skills of pedagogical thinking that mark the transition to the teacher role. Both were hampered by lack of subject matter knowledge but neither they, their program, nor their cooperating teacher seemed to focus on filling these gaps during student teaching.

Conclusions

As these illustrative findings demonstrate, realities in teacher education are not clear and self-evident. Instead, researchers, educators,

and policymakers need a framework to determine what goes on in teacher education and to develop changes. That framework must focus attention on important systematically related aspects of teacher learning, such as the interaction over time of personal biography and preservice curriculum (program features, settings, people).

Since curriculum defines and projects the valued capacities to be developed, a research framework in teacher education needs some initial clarity about concepts and values. Here the distinctive features of teaching, together with social goals, such as equity and academic learning, can inform the discussion of worthwhile aims and standards for appraisal and provide direction for developing the teacher education curriculum.

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