

Occasional Paper No. 107

IMPLEMENTATION OF TEACHER THINKING RESEARCH
AS CURRICULUM DELIBERATION

John S. Zeuli
and
Margret Buchmann

Published By

The Institute for Research on Teaching
252 Erickson Hall
Michigan State University
East Lansing, Michigan 48824-1034

October 1986

This work is sponsored in part by the Institute for Research on Teaching, College of Education, Michigan State University. The Institute for Research on Teaching is funded primarily by the Office of Educational Research and Improvement, United States Department of Education. The opinions expressed in this publication do not necessarily reflect the position, policy, or endorsement of the Office or the Department. (Contract No. 400-81-0014)

Institute for Research on Teaching

The Institute for Research on Teaching was founded at Michigan State University (MSU) in 1976 by the National Institute of Education. Following a nationwide competition in 1981, the NIE awarded a second five-year contract to MSU. Funding is also received from other agencies and foundations for individual research projects.

The IRT conducts major research projects aimed at improving classroom teaching, including studies of classroom management strategies, student socialization, the diagnosis and remediation of reading difficulties, and teacher education. IRT researchers are also examining the teaching of specific school subjects such as reading, writing, general mathematics, and science and are seeking to understand how factors outside the classroom affect teacher decision making.

Researchers from such diverse disciplines as educational psychology, anthropology, sociology, and philosophy cooperate in conducting IRT research. They join forces with public school teachers who work at the IRT as half-time collaborators in research, helping to design and plan studies, collect data, analyze and interpret results, and disseminate findings.

The IRT publishes research reports, occasional papers, conference proceedings, a newsletter for practitioners, and lists and catalogs of IRT publications. For more information, to receive a list or catalog, and/or to be placed on the IRT mailing list to receive the newsletter, please write to the IRT Editor, Institute for Research on Teaching, 252 Erickson Hall, Michigan State University, East Lansing, Michigan 48824-1034.

Co-Directors: Jere E. Brophy and Andrew C. Porter

Associate Directors: Judith E. Lanier and Richard S. Prawat

Editorial Staff

Editor: Sandra Gross

Assistant Editor: Sally B. Pratt

Abstract

Drawing on philosophy, curriculum theory, and studies of teacher education, this paper aims to reconstruct the implementation question in teacher thinking research. To exemplify the argument and show what is entailed in curriculum deliberation for teaching teachers, the authors examine a particular study of teacher thinking, Dan C. Lortie's Schoolteacher, and a specific occasion for educating teachers, the "social foundations" course that is a part of American teacher preparation. Through a combination of philosophical and case analysis the authors aim to demonstrate that curriculum questions in teacher education are problems of practice, that is, of principled thought involving particulars, as opposed to technical application of research or unreflective reliance on tradition. Hence this paper serves to clarify the meaning of professional action in teaching teachers.

IMPLEMENTATION OF TEACHER THINKING RESEARCH
AS CURRICULUM DELIBERATION¹

John S. Zeuli and Margret Buchmann²

What Are the Right Questions?

What are the uses of teacher thinking research for teachers? What would it mean to implement such research in teacher training? Should teacher educators ask what research to implement or should they consider the curriculum question, namely, what worthwhile knowledge teacher thinking research can provide (see Clark & Lampert, 1985)? Will curriculum deliberation, then, require shifting from questions of utility to questions of justification? That is, do we need to ask what good reasons exist for including teacher thinking research as content in a professional program?

Drawing from philosophy, curriculum theory, and studies of teacher education, this paper aims to reconstruct the implementation question in teacher thinking research by advocating and illustrating a shift from questions of research utilization and implementation to those of curriculum deliberation and justification. To exemplify our argument and show what is entailed in curriculum deliberation in teacher education, we focus on a particular study of teacher thinking, Dan C. Lortie's Schoolteacher (1975), and on a specific occasion for educating teachers, the "social foundations" course that is a part of American teacher preparation.

¹Paper presented at the Conference of the International Study Association on Teacher Thinking, "Teacher Thinking and Professional Action," Leuven University, Belgium, October 13-17, 1986.

²Margret Buchmann coordinates the Conceptual Analytic Project. She is an associate professor of teacher education at Michigan State University. John S. Zeuli is a research assistant on the project. The authors have profited greatly from Robert E. Floden's criticisms and suggestions in writing this paper.

Noting that Lortie's study signals the importance of making room for outsider perspectives in teacher thinking research, we examine two worthwhile aims in teacher education: expanding the context of teacher thinking and promoting teachers' role orientation. These aims assume that teaching goes beyond skillful performance to include elements of choice, reflection, and responsibility and that teacher educators should try to influence the content, context, and orientation of teacher thinking. Through a combination of philosophical and case analysis we aim to demonstrate that curriculum questions in teacher education are problems of practice, that is, of principled thought involving particulars (see Reid, 1978) as opposed to a technical application of research or an unreflecting reliance on tradition (see Lanier, 1986). Hence this paper serves to clarify the meaning of professional action in teaching teachers.

Background: The Myth of Implementation

The hope that research on teacher thinking can be helpful to teachers underlies the title of the conference of the International Study Association on Teacher Thinking: "Teacher Thinking and Professional Action." The call for papers documents that many researchers still cast this hope in terms of implementing research findings in teacher training programs. To speak of "implementation," however, misleadingly suggests a direct, mechanistic connection between research findings and teacher education.

A number of problems accompany the implementation approach. First, this approach tends to give teachers mistaken confidence in the certainty and applicability of research results. Research knowledge is, to varying degrees, time-bound, theory-dependent and context-specific; teacher thinking research is no exception to these limitations. Speaking of applications reinforces the faulty assumption that scientific findings can be relied on to deliver clear lessons for classroom practice (Buchmann, 1984).

Second, this approach masks the fact that "findings to be implemented" are partially shaped by researchers' definitions of worthwhile aims, both in classroom teaching and teacher preparation. Confusing scientific with moral authority, teachers and teacher educators may come to accept these definitions without considering other, perhaps more appropriate, aims (see Floden, 1985). However, considering a broad range of aims in teacher education can even create situations in which some research knowledge ought to be ignored (see Fenstermacher, 1986, p. 45). Preparing teachers for their work may require placing crucial, morally significant beliefs above "the facts," since, for instance, as a basis for action, the belief that students can learn must be upheld whatever test scores, the opinions of parents, and even the firsthand experiences of the teacher may imply to the contrary. This triumph of hope over experience is justified--not because it fits with the data--but because it can create new desirable facts, such as learning in students taught not to expect it (see Buchmann, 1984, p. 27).

Third, critics of implementation agree that teachers should be educated--rather than trained--so that they can use research wisely (Buchmann, 1984, 1986a; Fenstermacher, 1979, 1986; Zumwalt, 1982; see also Gage, 1985). Since research findings are context-specific and carry value implications, teachers cannot merely be trained to do certain things. They must be able to understand when, to what purpose, and for what reasons some teaching strategy, for instance, may be effective: "an ability that requires knowing much more about research studies than only the conclusions" (Floden, 1985, p. 21). In fact, the rhetoric of implementation may deprive teachers of the best that can be learned from research--namely, the desire to understand things and ask questions.

Because curriculum defines and projects conceptions of valued capacities to be developed, studies of what, how, and why teachers think as they do cannot, in themselves, provide defensible content in teacher education. As Floden and Feiman (1981) point out, typical modes of teacher thinking may often be patterns that ought to be avoided than patterns that ought to be emulated; to prepare novices, the fact that experienced teachers may think in a certain way is not "reason enough to prescribe this way of thinking" (p. 9, emphasis added).

To "implement" teacher thinking research in professional education in a way that avoids these problems, educators must think about worthwhile aims and instructional activities that follow them. "Implementation" in teaching teachers means including content in a curriculum and that, in turn, requires justification. Considering what might be taught and learned in a social foundations course provides an occasion for curriculum deliberation; it also suggests a different direction for teacher thinking research than the individualistic or interactional studies that so far have been typical (Clark, 1985).

Why Lortie?

Teacher thinking research tends to examine context in terms of the "immediate social environment," defining the contextual knowledge of teachers as being interactive (Clark & Lampert, 1985). Such knowledge, although inspired and cognitively complex, is clearly limited (Clark, 1985). Expanding the concept of context to include structural patterns and influences normally not visible from a classroom perspective highlights the fact that teacher perspectives are but one of several viewpoints on teaching. Since teaching is linked to and is regulated within a wider context, our understanding of teacher thinking will improve in light of social determinants (Lindblad & Hasselgren, 1985).

In general, insider views are not necessarily more valid than outsider views (see Merton, 1973). For instance, a group of American men may claim that they entered the teaching profession because they wanted to help young people; sociologists may find out that most of them are first-generation college graduates and interpret their occupational choice in terms of social mobility (Donmeyer, 1985). These claims are not inconsistent; that is, one can both want to help other people and to advance oneself. But teacher goals and actions will become more intelligible when we take both insider and outsider perspectives into consideration.

Lortie's (1975) Schoolteacher is a standard reference combining a sociological viewpoint with a focus on the thinking of teachers, their goals, sentiments, and psychological rewards. Lortie investigates teachers' own understandings of their work, but he also analyzes how these perceptions are influenced by structural patterns. He bases his comprehensive investigation on intensive interview data of teachers who represent a range of socioeconomic settings and teaching levels in districts surrounding Boston; he checks these data and his interpretations against surveys which represent the national teaching population. Although he makes general claims about American teachers, he distinguishes between different groups in his analysis, paying particular attention to the differential meaning of the career and reward structure of teaching for men and women. Lortie thus makes inferences about teacher thinking "through a combination of careful sample selection, cross checking against other samples, caution in claiming generality of results, and description and possible explanation of differences among different groups of teachers" (Feiman-Nemser & Floden, 1986, p. 507).

Exploring what teachers' experiences mean to them, Lortie draws attention to the common contingencies that continue to influence recruitment and socialization as well as the content, context, and orientation of teacher thinking in the United States. Studies since Lortie confirm that the curriculum of initial and continuing teacher education is "heavy with cognitive experience that reinforces the conservative, individualistic and present-oriented tendencies" (Lanier, 1986, p. 550) in teacher thinking.

Deliberation in Teacher Education

Curriculum deliberation requires repeated considerations of possible actions and their justifications, the likely effects of acting on these aims in particular contexts, and the adjustment of means and, possibly, ends in the light of our reflections on actions. The two aims we will consider--expanding the context of teachers' thinking and promoting teachers' role orientation--do not, of course, exhaust all aims worth pursuing in teaching teachers or all the aims that could be pursued, using instructional content from Lortie's (1975) study.² We have selected them for discussion, (a) because they are, as we hope to show, particularly important in American teacher education and (b) because they fit the instructional occasion we will use them as an occasion for deliberation. A building block of the professional curriculum since the Progressive Education movement in the thirties, the Social Foundations course is

²Another worthwhile aim using Lortie's study could include learning about the structure of the disciplines. Schwab (1978) argues that one does not understand a body of knowledge without understanding its substantive concepts and modes of asking questions and justifying conclusions. Lortie characteristically works with sociological concepts (e.g., structure, role) and presents data and instruments supporting his claims, thereby enabling teachers to consider the evidence he uses in drawing conclusions. For this reason, Lortie's study of teaching has an advantage over other important sociological studies of teaching (e.g., Waller, 1932).

supposed to give prospective teachers an opportunity to look beyond individual and given practices to social factors and educational purposes.

After providing a brief analysis and justification, we will draw on Lortie's study for specific instructional content in line with each goal and discuss instructional activities that should promote the goals. For reasons that will become apparent, the order in which we present goals and activities is also the order of instruction. The cycle of curriculum deliberation continues through progressive attempts to bring goals, instructional content, and (feasible) tasks together and then reflect on what should, can, and has been accomplished and how these accomplishments, in turn, might be improved.

Expanding the Context of Teacher Thinking

Many American students expect to become teachers like the teachers they have had or known (not uncommonly their own relatives) and they expect to teach pupils like the ones they went to school with. The following quote from an interview illustrates how teaching fits into the continuity of many teachers' lives, highlighting the tight links to self and personal experience:

I remember how I would feel. I remember why I would like someone . . . or why I did not like a teacher. I think just remembering these things can give you a general idea of what you want to do, what you want to be and what you want your children to think of you.
(Lortie, 1975, p. 79; see also Feiman-Nemser & Buchmann, 1986)

Many teachers attend colleges close to their places of birth and prefer to teach in their home states. Their informal and formal socialization into the profession is largely continuous with their personal experiences.

During induction, this socialization often prevents teachers from seeing role demands as being sharply different from those they recognized from a pupil's perspective. That is, novices will--without special schooling--realize that teachers have to present and cover some material, give pupils some oppor-

tunities for practice and somehow find out what students have learned. But they know little of the "invisible world of teaching"--the world of ends, not just means; of reflection on action in the light of obligation; or of teaching dilemmas, such as reconciling goals of equity and academic learning.

Once in the classroom, teachers will often rely on what is personally compelling, on what they have seen and what seemed to have worked in other classrooms. They may even expect to teach the same content they learned in school--notwithstanding the shifts in values, knowledge, technology, economy, and politics that have taken place over the lifetimes of people still living. Being drawn to schools themselves, they may assume that schooling fits naturally into the lives of pupils who have an aptitude for learning. This implies that children from minority groups, for whom traditional schooling can feel strange, may appear to lack promise.

To advance goals of equity and academic learning, future teachers must learn that thinking about teaching is part of their work and that effective teacher thinking moves beyond the confines of the teacher's own practice and experience. If teachers are to help pupils see themselves and the world more clearly, teacher educators must also break teachers' chains of continuity, question them, and show them where they are misleading and harmful in their effects.

Such "salutary shocks" (see Floden, Buchmann & Schwille, forthcoming) can promote a transition to the teaching role that includes the benefits of a reflective stance toward the purposes of schooling and teaching. A fundamental consideration in deliberating on teacher education curriculum hence becomes whether some content widens the context in which teachers see their work. As Scheffler (1985) explains, "Self-knowledge is a typical fruit of contrast with

others, against which one's own distinctiveness is more sharply etched; this principle applies to groups as well as individuals" (p. 106).

Pertinent instructional content from Lortie. Lortie's research offers a perspective on what makes teachers different from other workers. From this comparative perspective, patterns not visible "from the inside" become apparent. As an important part of his analysis, Lortie examines how structural patterns such as recruitment, induction, and career rewards in teaching differ from those in other occupations and the ways in which these patterns affect the ways teachers think and act.

Lortie identifies basic components found in all systems of occupational induction to judge the complexity and effects of induction into teaching. He identifies three common mechanisms: formal schooling (including general education and special schooling), "mediated entry" (apprenticeships, often accompanied by a gradual enlargement and diversification of responsibilities), and learning-while-doing (on-the-job learning through independent trial and error).

By studying Lortie's findings, novices can learn that socialization into teaching is a fairly long process of general education in the United States, where most teachers have at least a four-year bachelor's degree. However, the special schooling of teachers is rather short, neither intensive nor intellectually and organizationally complex. Entry into teaching is abrupt; supervised practice is brief and unstandardized in comparison to other occupations, such as an apprenticeship in the building trades or a medical internship. Independent learning-by-doing and the "apprenticeship of observation" become the primary means of socialization. These informal processes of teacher socialization have stronger and more characteristic effects than formal training and induction.

Lortie also includes vivid descriptions of the extent to which teachers typically remain attached to their personal experiences, how this is reinforced by structural patterns in the occupation (e.g., the prevalent, isolating "egg crate" architecture of schools and norms against seeking advice and assistance from colleagues), and he shows how all this, in turn, affects teacher thinking and the profession as a whole. But he does more than simply state "the facts" about formal and informal American teacher socialization and its cognitive and affective correlate--namely, reliance on personal experience.

Lortie places these findings in a broader context that gives them critical significance. Prospective teachers can see the range and power of socialization processes in other professions and, it is hoped, can come to see the orientations induced by their occupational socialization in a new light. Personal experience can no longer appear apodictic when other professions are specifically organized so that the predispositions of newcomers become less important and "the selves of participants tend to merge with the values and norms built into the occupation" (Lortie, 1975, p. 56). In fact, professional socialization is usually experienced as a process of "seeing the world in reverse," or of "walking through a mirror" (see Davis, 1968). Teacher isolation becomes problematic when aspirants to the profession see that developing solidarity and shared understandings can lead to common standards that could, among other things, improve the quality and offset the uncertainties of their work (Lortie, 1975, see p. 161).

Instructional activity. Being conscious of having made a career choice, future teachers are generally interested in seeing how teaching compares to other occupations. They already understand that a lack of career rewards is a disincentive to talented and ambitious teachers, yet they tend to believe that

their earnings should match those of other workers with four-year college degrees. However, they do not, as a rule, understand the structure and effects of the socialization processes they experience or the ways these processes differ from those of other occupations.

In order for students to see and understand these issues, they must first grasp the basic components of professional socialization: "mediated entry," general schooling, special schooling, and "learning-while-doing." Students have learned, through reading Lortie, that beginning teachers in the United States are placed in a "sink or swim" situation whereas their "apprenticeship of observation" happens before formal preparation. After studying the meaning of these terms, students explore in groups the predominance and effects of these socialization mechanisms across generally familiar professions: nursing, law, medicine and engineering. Comparing their findings to teaching, the groups present and defend their analyses. As discussion unfolds, the class generally agrees on the following points.

Students come to see that the "apprenticeship of observation" and "learning-while-doing" are the most characteristic and powerful socialization mechanisms in teaching. However, they do not think that, in teaching, either mechanism is organizationally or intellectually complex. Moreover, they begin to see that, through watching teachers from a pupil perspective, learning to teach becomes overly dependent on intuition and imitation rather than informed criticism, attention to specifics, or explicit rules of assessment (see Lortie, 1975, p. 63).

Teachers' "self-socialization" and its peculiarities thus becomes more clear to students. They also recognize that other professions try to break the connection between firsthand experience and professional thought and action.

Nurses or lawyers, for example, continue to learn on the job, but their work is preceded by comparatively rigorous special schooling and gradual entry into the profession. Students often comment that law differs from nursing in the complexity of its socialization processes. They agree, however, that neither profession places much importance on the personal experiences of novices as they begin their careers. Students in engineering and medicine rely even less on personal experience during formal preparation for their careers.

In sum, students begin to understand that the powerful socialization mechanisms in teaching lack complexity and intellectual depth and rely mostly on teachers' personal experiences before or after formal socialization. By contrast, at the points where socialization mechanisms into the other occupations have strong effects, they are more complexly organized and intellectually rigorous. Such an instructional activity helps prospective teachers recognize that their emphasis on self and experience is the result of given, mostly informal patterns of occupational socialization: actual, but not therefore right.

Promoting Teachers' Role Orientation

Expanding the context of teacher thinking serves a twofold purpose. It provokes teachers to place their ideas about teaching within a broader framework. Their predilections may be found lacking, conditioned by an unquestioned acceptance of their own experiences. Detachment from these experiences can be a healthy shock, a sharp discontinuity that enlarges their frames of reference and promotes the transition to their roles as teachers. Expanding the context of teacher thinking can also help orient their future actions by providing a foundation for recognizing idiosyncratic or ungrounded judgments for what they are.

Scheffler's (1968) analysis of the contributions of university scholarship to the education of teachers parallels this point. He argues that the content of teacher education curricula should broaden the context of teachers' performance. For one thing, students do not simply respond to the explicit material of the lesson or the content of classroom activities but also to what the teacher represents. To stand for an idea consciously rather than unwittingly, teachers must be keenly aware of the standards, convictions and larger rationale that underlie their classroom practices (Scheffler, 1968, see p. 6).

Teaching is a moral activity that implies thought about ends, means, and their consequences. Role orientation in teaching, by definition, takes an interest in students' learning worthwhile things; hence teachers must attend to students' understandings. Puzzling about what is going on inside the heads of young people is difficult enough when teachers and students share a culture but becomes even more difficult when they do not. Yet teachers also must assume some responsibility for equal access to knowledge. As Soltis (1981) explains, in a multicultural society such as the United States, teaching requires "building bridges of reasonableness" 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)

Teachers who are role-oriented place themselves within a larger context in which obligations, social ideals, and the disciplines of knowledge figure prominently (see Thelen, 1973). Detachment from the self, habitual practices, and immediate realities creates opportunities for asking questions, see alternatives, and consider action in the light of intention and effectiveness (see Buchmann, 1986b). By contrast, self-oriented teachers tend to be guided by personal inclination, habitual ways of working, or an unreflective regard for students' needs and interests (see Buchmann, 1983; Cusick, 1982).

The "self-socialization" of teachers reinforces the development and persistence of personal orientations toward teaching. A major challenge for American teacher educators is therefore to help future teachers recognize the limits of that socialization and to foster a conception of teaching that fits with the idea of public responsibility. Personal orientations toward teaching are not always inappropriate or misguided; rather, personal considerations such as a need for feeling rewarded and other and more important considerations (such as equity or academic learning) may become secondary.

Pertinent instructional content from Lortie. Probing teachers' thinking, Lortie finds that teachers' "prideful occasions" may conflict with their stated ideals of "reaching all students," hence also to the institutional norm of universalism, or the school's official commitment to the learning of all students. In recalling when they were especially proud of something they had achieved, teachers tend to mention accomplishments with individual students (e.g., succeeding with a child they believed to be beyond help) or special public displays (e.g., assemblies, art shows, athletic contests). Teachers who take most pride in accomplishments with individual students de-emphasize the equity goals of schooling; public displays may reveal the unacademic (and often also elitist) side of teacher achievements.

Through careful study of Lortie's analysis of these prideful occasions, teacher candidates may be oriented toward their role obligations and they may also begin to perceive how structural features of their work entail the dilemma between reaching institutional goals and receiving work rewards. Teaching in the United States is an unstaged occupation largely devoid of significant increases in salary, status, and power for those who remain in the classroom (Feiman-Nemser & Floden, 1986). Given the lack of career rewards, teachers

depend on emotional, "psychic" rewards in their work. This structurally conditioned reliance on psychic rewards may encourage and reinforce idiosyncratic definitions of what can and ought to be accomplished in teaching. In this fashion, formal organizational goals and public policies can thus become subordinate to individual definitions of work goals and outcomes (see Lipsky, 1980).

Instructional activity. To give students a concrete sense of Lortie's concept of "prideful occasions," we ask them to write an account of something that made them feel quite proud during student teaching or to interview an experienced teacher about such an occasion and to write up the interview. We match students who choose the interview option with teachers in their specialty and give them guidelines for interviewing; frequently, students interview teachers they know and like. For both options, we ask students to follow an outline that includes a description of the workplace as a setting, a brief characterization of the protagonists (teachers, pupils, and significant others), and a detailed account of the prideful occasion itself. Finally, we ask them to consider the question, "What does this prideful occasion suggest about teacher goals and the challenging aspects of teaching?"

We refer students to Lortie's interview question in the appendix of his book: "Please recall some occasion when you felt especially proud of something you achieved as a teacher. Please tell me about that" (p. 251). However, we schedule the assignment before they read the relevant chapter in Schoolteacher. Thus participants can consider their own and other teachers' implicit goals and work-related sentiments before examining Lortie's data and inferences.

Student accounts of prideful occasions allow several interesting comparisons. The prideful occasions of class participants can be contrasted with occasions reported by the experienced teachers interviewed, and the accounts of

elementary and secondary teachers in each group (i.e., student teachers, experienced teachers) can be compared with one another. Once Lortie's chapter has been studied, students can examine how different groups in the class compare with the teachers Lortie studied. The assignment also creates, in the aggregate, a set of data and interpretations generated by the class.

Perhaps most surprising to students is how closely the tendencies Lortie observes match what their report about themselves and the experienced teachers they interviewed. Given that students often wonder whether Lortie's findings are relevant to themselves or teachers they know and like, this is in itself a boon: It makes these findings more credible to them.

Treating the students' accounts of prideful occasions as data has even more important educational advantages. As a result student work is treated more seriously in the transition to professional role assumption. The exercise exemplifies and promotes thinking about teaching and it helps future teachers look at themselves and other teachers as part of a larger picture. What they or more experienced teachers do or believe in is not just reported or remembered, but is considered open to judgments of worth and relevance in the light of role obligations (see Little, 1981). And this can be achieved without doubting a teacher's good intentions. Prideful occasions thus become potential exemplars of good, or not so good, ways of working, or of more or less justifiable work goals, analyzed in relation to workplace constraints and other structural conditions we have already discussed.

Pitfalls and Complications

In teaching, reflection always shows what else needs to be done and thought about. Discussing instructional activities in line with the goals of expanding the context of teacher thinking and promoting role orientation, we

presented processes and outcomes in conjunction with our best hopes and better experiences as teacher educators. However, instructional activities can miscarry, sometimes thwarting the intended goals and outcomes.

For instance, take the first goal and the comparison of teacher socialization with other socialization patterns. Students may well understand the socialization mechanisms and their characteristic contributions to different lines of work, but they may not see the bearing of these differences on themselves, as teachers, and on the content and orientation of their thinking. The difficulty is that, in professional education, we are not merely trying to build an intellectual system. We are also trying to illuminate the self and social patterns to enable students to think and act in certain ways. Accepting a hypothesis, for instance, that becoming a teacher is mainly a process of "self-socialization" is not the same as realizing its import for what kinds of learning and action are helped or hindered by such socialization.

This becomes particularly true when socializing mechanisms have face-validity for prospective teachers. So "learning-by-doing" reigns supreme in teacher induction: What of it? From the viewpoint of common sense, people learn best by experience, which supplies the lessons that need to be learned; therefore, common sense seems a reliable guide for action (see Buchmann & Schwille, 1983). Thus recognizing the role of personal experience in learning to teach may not lead students to question, to search out larger frames of reference, or to turn to books, colleagues or collective standards. Instead, it may merely confirm previous, highly entrenched beliefs, giving them added validity through the authority of research.

For the second goal, the vividness of prideful occasions can make it difficult for students to see what problems may be associated with them. Students

find it hard to understand how what experienced teachers cherish about their work can be problematic, especially when these problems seem to have little to do with life in schools but with abstract and remote social goals, such as academic learning and equity. What is visible "from the inside" is a teacher's success with a child that had seemed past hope, smiling families on Grandparents' Night or the applause greeting a successful young athlete. To see the limitations of these achievements and their inherent tensions with academic learning and equity, one must learn to look at teaching from the outside.

These pitfalls are present both when students write reflective accounts of their own prideful occasions and when they write up and analyze a teacher interview. Each variant of the assignment, however, brings additional complications. When class participants interview a teacher who has taught effectively in the student's content area or teaching specialty for some time, their informant will appear to them trustworthy--a reliable model for what to do and be in teaching. Most novices will be strongly disposed to accept that teacher's achievements as something to be emulated rather than questioned. Hence, teachers' prideful occasions identified through interviewing may become recipes for action rather than occasions for critical thought.

When students write about particularly challenging aspects of their work during student teaching, they usually report on something personally compelling that has the vividness of direct, recent experience. Moreover, students take this time in real classrooms very seriously as a personal test and a test of their career choice. The whole occasion being cathected, prideful occasions nested in it have great emotional significance and a personal validity that may be hard to shake. Reflection and critical analysis are not easy, but the rewards are in the long term.

As a result, even when one goes part of the way to expand the context of teacher thinking and promote role orientation in one class, these aims must be reinforced across different occasions for teacher learning, such as student teaching and classes in pedagogy and the content areas. For this to happen, however, other teacher educators must endorse and work toward these goals, which require certain conceptions of teacher education and teaching. Yet the professional curriculum for teachers is usually not geared toward reflection and analysis (Lanier, 1986). Further, most content area courses are not taught in the necessary spirit of liberal education.

While university faculty are expected to value questioning and intellectual flexibility, teacher educators in the United States tend not to appreciate these traditional values of higher education (see Lanier, 1986, p. 533). Lanier argues that the home experiences of a large proportion of American teacher educators, their educational opportunities, and their restrictive work conditions all conspire, so that:

teacher educators closest to schools and prospective and practicing teachers often assume professional work assignments and routines that demand minimal intellectual flexibility and breadth and require, instead, conformity and limited analysis. (p. 535)

Such dispositions will result in what we have argued must be avoided when deliberating about teacher education curriculum. For, without reflection and analysis, research on teacher thinking will either be facilely implemented or easily slighted as unimportant or irrelevant. Although these pitfalls and complications make our goals more difficult to reach, they do not make them, in any way, less worthy ideals to aim for.

References

- Buchmann, M. (1986a, April). Problems of practice and principle in research communication. Paper presented at the 1986 Philosophy of Education Society meetings, Montreal.
- Buchmann, M. (1986b). Role over person: Morality and authenticity in teaching. Teachers College Record, 87, 529-543. (An earlier version was presented under the title "Role over person: Legitimacy and authenticity in teaching," at the 1985 Conference of the International Study Association on Teacher Thinking, Tilburg University, The Netherlands, May 1985.)
- Buchmann, M. (1984). The use of research knowledge in teacher education and teaching. American Journal of Education, 92, 421-439. (Also published as Occasional Paper No. 71, East Lansing: Michigan State University, Institute for Research on Teaching.)
- Buchmann, M., & Schwille, J. (1983). Education: The overcoming of experience. American Journal of Education, 92, 30-51.
- Clark, C.M. (1985, May). Ten years of conceptual development in research on teacher thinking. Paper presented at the Conference of The International Study Association on Teacher Thinking, Tilburg University, The Netherlands.
- Clark, C.M., & Lampert, M. (1985, April). What knowledge is of most worth to teachers? Insights from studies of teacher thinking. Paper presented at the annual meeting of the American Educational Research Association, Chicago.
- Cusick, P.A. (1982). A study of networks among professional staffs in secondary schools (Research Series No. 112). East Lansing: Michigan State University, Institute for Research on Teaching.
- Davis, F. (1968). Professional socialization as subjective experience: The process of doctrinal conversion among student nurses. In H.S. Becker, B. Geer, D. Riesman, & R.S. Weiss (Eds.), Institutions and the person (pp. 235-251). Chicago: Aldine.
- Donmeyer, R. (1985). The rescue from relativism: Two failed attempts and an alternative strategy. Educational Researcher, 14(10), 13-20.
- Feiman-Nemser, S., & Buchmann, M. (1986). The first year of teacher preparation: Transition to pedagogical thinking? Journal of Curriculum Studies, 18, 239-256.
- Feiman-Nemser, S., & Floden, R.E. (1986). The cultures of teaching. In M.C. Wittrock (Ed.), Handbook of research on teaching (3rd. ed., pp. 505-526). New York: Macmillan.

- Fenstermacher, G.D. (1979). A philosophical consideration of recent research on teacher effectiveness. In L.S. Shulman (Ed.), Review of research in education, (Vol. 6, pp. 37-49). Itasca, IL: Peacock.
- 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.
- Floden, R.E. (1985). The role of rhetoric in changing teachers' beliefs. Teaching and Teacher Education, 1, 19-32.
- Floden, R.E., Buchmann, M., & Schwille, J.R. (forthcoming). Breaking with everyday experience. Teachers College Record. (Also available as Occasional Paper No. 103, East Lansing: Michigan State University, Institute for Research on Teaching.)
- Floden, R.E., & Feiman, S. (1981). Should teachers be taught to be rational? (Research Series No. 95). East Lansing: Michigan State University, Institute for Research on Teaching.
- Gage, N.L. (1985). Hard gains in the soft sciences: The case of pedagogy. Bloomington, IN: Phi Delta Kappa, Center on Evaluation, Development and Research.
- Lanier, J.E. (1986). Research on teacher education. In M.C. Wittrock (Ed.), Handbook of research on teaching (3rd. ed., pp. 527-569). New York: Macmillan.
- Lindblad, S., & Hasselgren, B. (1985, May). Can we explain teaching by understanding the teacher? Some remarks on research into teacher thinking. Paper presented at the Conference of the International Study Association on Teacher Thinking, Tilburg University, The Netherlands.
- Lipsky, M. (1980). Street level bureaucracy. New York: Russell Sage Foundation.
- Little, J.W. (1981). School success and staff development: The role of staff development in urban desegregated schools (NIE No. 400-79-0049). Boulder: University of Colorado, Center for Action Research.
- Lortie, D.C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.
- Merton, R.K. (1973). The perspectives of insiders and outsiders. In N.W. Storer (Ed.), The sociology of science: Theoretical and empirical investigations (pp. 99-136). Chicago: University of Chicago Press.
- Reid, W.A. (1978). Thinking about the curriculum: The nature and treatment of curriculum problems. London: Routledge & Kegan Paul.
- Scheffler, I. (1968). University scholarship and the education of teachers. Teachers College Record, 70, 1-12.