A study examined preservice teachers' responses to a teacher education course and explored the relationship between how the preservice teachers made sense of the coursework and the assumptions of teacher educators. Nine preservice teachers enrolled in a preservice content area reading summer course were each interviewed six times during the course. Results indicated that: (1) general reactions to the course, readings, activities and assignments were positive; (2) when these preservice teachers made a positive decision about a teaching strategy encountered in the course, they linked their decision to a previously developed personal history-based goal for teaching; (3) the rationales the preservice teachers attached to teaching strategies as reasons for valuing them seldom matched their instructor's rationales, yet they talked as though their rationales were the same; and (4) the preservice teachers valued strategies for being interesting, different from traditional methods, or providing bonus features for teachers, never mentioning their instructor's focus on fostering independence in lessons and metacognitive awareness. Clearly, preservice teachers come to their formal study of teaching with implicit theories and personal history-based beliefs. Teacher educators assume that preservice teachers can and do distinguish between the beliefs they currently hold and the principles they are asked to consider—an assumption this study shows to be unfounded. Teacher educators need to consider carefully what kinds of coursework experiences can invite preservice teachers to focus attention on how they evaluate new pedagogical principles rather than on what they can do with new instructional ideas. (Twenty-four references are attached.) (RS)
PRESERVICE TEACHERS AND COURSEWORK: WHEN IS GETTING IT RIGHT WRONG?

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Pedagogical shifts that are startlingly dramatic in retrospect can be ever so subtle as we live through them. I certainly find this true of my own experiences as a teacher. I remember a time when "learning" meant reproducing a set of "right" answers to teachers' questions; "teaching", therefore, meant inviting students to rehearse those answers—in interesting and memorable ways, of course. Those were the days when new teachers were encouraged to, harangued about, rewarded for and evaluated by how well we could plan teaching episodes around straightforward behavioral objectives that detailed how students would respond given particular tasks in specified contexts. Like many of my peers, I learned to think objectives, to write them, and to feel guilty if I engaged students in any activities not clothed in them. However, I was teaching high school English then and became far too busy doing the work of teaching to notice how, across the years, I was spending less time drafting objectives, more time listening to students as they struggled to "see" literature as I saw it, and eventually all of my time trying to "see" literature as they saw it. I forgot to remember objectives.

Now, as a teacher educator with my feet firmly set in theories of constructed knowledge and my eyes focused on the power of lived experiences as bases for that construction, I find myself remembering to wonder once again about objectives. What do I hope to accomplish with those who come to me for help as they learn to be teachers? What do I want them to be able to do? And under what conditions? How am I judging whether the preservice teachers who involve themselves in the coursework for which I am responsible are "getting" it? More to the point, what is the "It" I imagine that I am teaching or that they should be learning?

A Case Study

These questions have taken shape, grown and become increasingly urgent as I re-examine, explore and come to understand more clearly the implications of data I collected
through interviews with nine preservice teachers as they worked their way through one teacher education course. The course was Content Area Reading, and the nine preservice teachers who participated in this study of how they were making sense of that course were all secondary subject matter majors who would have no field experiences to inform their thinking until student teaching. Therefore, these nine were excellent resources for investigating the interaction of biography or personal histories (See Bullough, 1989; 1990; Knowles, 1990; Knowles & Hoefler, 1989) with teacher education coursework.

Each of the nine talked with me on six occasions across the term. We spent two interview sessions talking about their experiences as learners in home, community and school settings. We focused the next three interview sessions on aspects of the course, discussing in-class events and speakers, reviewing the stories of how each had developed class assignments, and re-opening discussions that had originated in the class. Our final session was devoted to their evaluation of 35 statements their professor had made throughout the course. These statements embodied his theories and suggestions for teaching well using reading, writing and discussing as tools for learning subject matter.

Consequently, I became privy to many of the private, personal reactions and responses these nine had to the course. I was privileged to hear what they believed Professor Barnett had advocated—their reconstruction of his arguments—and to hear how they arrived at decisions about the potential value of the strategies he had advocated—their processes for evaluating those arguments.

Since both the course itself as well as these interviews were audio taped and completely transcribed, I have had ample opportunity to revisit those conversations, to look closely at the relationship between what Barnett said, what these preservice teachers reported that they heard and their rationales for supporting the decisions they made about course ideas. If Barnett's objective was to "sell" specific instructional strategies as decontextualized, discrete practices, useful as additions to a wide range of pre-existing pedagogical goals, then these nine got it--his objective—"right." If, however his objectives
included passing along intact a set of principles for guiding decisions about what instructional practices might be most productive when students must negotiate text in order to learn or fostering new pedagogical goals with which these strategies would be most compatible, then these nine got it "wrong."

The discrepancies between what Barnett seemed to offer as rationales and theories for implementing reading, writing and discussing to learn strategies in classrooms and the rationales these nine preservice teachers offered for valuing those same strategies were large. What lessons we as teacher educators might take from these discrepancies depends on how we view our roles as teachers of those who hope to teach, on what goals and/or objectives we imagine lie beneath the programs of teacher education within which we work, and on how we frame the task of learning teaching.

In this report, I have first shared the thinking of these nine preservice teachers as they explained that thinking to me. Therefore, the first section of this report details their responses to course ideas and contrasts their rationales for making positive decisions about those ideas with Barnett's rationales for recommending them in the first place. The data imply that how these preservice teachers arrived at their conclusions is far more significant than what those conclusions actually came to be. I have, therefore, devoted the second half of this report to exploration of the relationship between how these preservice teachers apparently made sense of coursework and our assumptions as teacher educators. It may well be time for us as teacher educators to reassess our assumptions, to define anew our objectives and to look closely at what "It" is that we find ourselves busy trying to achieve with the preservice teachers we intend to help, guide or mentor as they learn to do teaching.

Looking At The Data

Before taking a detailed look at the relationship between the rationales these preservice teachers offered in defense of their positive decisions about many ideas they encountered in this content area reading course and the rationales offered by their professor, it is important to understand what these data cannot be expected to illuminate.
No attempt was made in the data gathering process to collect evidence that would allow a later evaluation of the quality of Professor Barnett's instruction or of the appropriateness of his arguments. This was not a study of one teacher educator's effectiveness. It was instead an attempt to document the processes these preservice teachers employed for determining the potential value of instructional principles they encountered through the coursework.

Although the intent of the study was to focus attention directly on these preservice teachers as learners, neither was it an opportunity to "catch" preservice teachers behaving in duplicitous ways. Questions have long plagued us about how to explain that preservice teachers appear to have learned new, research-based ways of engaging students with subject matter while at the university but fail to produce those new teacher actions in live classrooms (see Bullough, in press; Hollingsworth, 1989; Hoy, 1968; Knowles, 1988; Shipman, 1967; Zeichner & Tabachnick, 1981). Looking closely at their reports of their thinking about one course while it was in progress seemed an appropriate way to document the phenomenon and to either challenge or support research assumptions that preservice teachers indeed "learn" from coursework but fail to produce evidence of that learning when in actual field settings. Emphasis here on the discrepancies between what Barnett offered and what these preservice teachers reported valuing is intended to challenge our assumptions about how preservice teachers manage coursework rather than to preference the position of either Barnett or the preservice teacher whose decision is discussed. The implications to us as teacher educators of the differences between the rationales Barnett offered to support his suggestions and those these preservice teachers offered as reasons for valuing Barnett's suggestions are enough to consider here without also tackling questions of whether one set of rationales is more desirable than the other.

In an effort to make this data accessible to readers, I have outlined briefly the context in which Barnett taught and reported these preservice teachers' responses by organizing them around the dominant themes expressed in those responses.
Content Area Reading--A Context

Barnett used this course in content area reading as an opportunity to invite preservice teachers who will eventually teach in a variety of subject matter contexts to consider strategies that will help inexperienced readers gain metacognitive control over their own reading processes. He advocated teaching high school readers how to read to learn as an alternative to circumventing difficult texts via teacher-telling or lecturing. He proposed that writing and small group peer discussion might be useful tools for instruction.

Barnett worked from a constructivist stance even though he did not make this stance explicit. He used phrases like "making meaning" or "personalizing learning." Class sessions were three hours long three days a week since this was a summer term course. In class, Barnett frequently asked those enrolled to work in small groups to try out a strategy. He invited subject matter specialists to speak as guest lecturers. He used an interactive journal as a forum for discussing assigned readings. Those enrolled submitted an I-Search--a narrative, process-focused reformation of traditional research papers--and a final project. This project consisted of a series of lessons--a unit--on a topic of choice and was intended as a vehicle for those enrolled to use to demonstrate their abilities to transform course ideas into appropriate subject matter-specific forms.

Enrollment included experienced teachers, several beginning teachers who had completed student teaching and eleven preservice teachers. Two of these declined participation in this study due to heavy class loads and a short term.

Content Area Reading--Some Responses

During interviews three, four, and five, each individual was asked to explain his or her response to and current thinking about the ideas presented most recently in the lecture/seminar time or through the assigned readings. In the process of these rather lengthy conversations, the rationales for emerging points of view, the relevant explicit or implicit beliefs which functioned as the underriding premises for these rationales, and the conclusions individual preservice teachers were reaching emerged.
"These ideas seem natural". Their general reactions to the course, the readings, the activities and assignments were positive. Several of those with whom I spoke found the course "natural" and were even puzzled about why Barnett might want to focus on such "obvious" ideas. The comments cited throughout this report include the pseudonym selected by the participant as well as his or her subject matter major.

I expected this to be another junky education course, but what he's talking about makes sense to me. It doesn't seem like a theory that people should use but [that] has no backing. It will come natural to me because that's how I learn myself. (Corinne, English)

I have really enjoyed the class. I think it's quite useful so far. A pre-reading activity seems natural. What it accomplishes seems like it would be a natural thing to do. (Charlie, English)

In a lot of [the articles], the stuff seemed quite obvious to me—that textbooks are bad. I'm not sure why we're getting into this. It's somewhat obvious that we can't have people learning [by] just memorizing things. That's logical. (Will, math)

Several preservice teachers noted that at least some of the ideas they were encountering were new as well as potentially useful.

[Pre-reading] is new to me. I hadn't thought about utilizing something before reading. Every method we've talked about in this course seems to me like, "Yes! This is going to work." I think what we are learning is really important. (Charlie, English)

The whole concept of combining reading, writing, and discussion is [new to me]. And Journals—they are old, but this is a new way of thinking about [them]. With this new way of thinking, you can blend things together. (Jeneane, English)
What [Professor Barnett is] doing is important, relevant, interesting, and fun. I think it will help me. Thinking about how written things are organized, I have an intuitive knowledge, but it isn't anything I [had] really thought about trying to teach to somebody. (Lauren, English)

Such positive responses were the norm. Many of Barnett's ideas and recommendations for teaching strategies were indeed valued by those enrolled in the course. However, the rationales these preservice teachers attached to these strategies as reasons for valuing them seldom matched Barnett's rationales.

"These ideas serve my goals". When these preservice teachers made a positive decision about a strategy they had encountered as part of this course, they linked their decision to a previously developed goal for teaching. Preservice teachers who entered the course eager to become interesting teachers valued strategies that they reasoned could be interesting to students. Others hoped to become caring teachers with rich personal connections to students. They valued strategies that they reasoned could open dialogue or signal their attitude of caring concern for students. Some preservice teachers linked a strategy's use to its ability to serve a goal that Barnett actually hoped to eradicate, for example, making lectures interesting. Their arguments for supporting their positive decisions, therefore, rested on their prior beliefs--on associations they had already built between student reactions they valued and teacher behaviors they believed could cause those reactions (see Holt-Reynolds, in press; Knowles & Holt-Reynolds, 1991)

The recognition of "implicit theories" (Clark, 1988) is longstanding. These are the logic consequences of the thousands of hours preservice teachers have already spent "studying" teaching via observation (Lortie, 1975) before they ever enroll in the first formal teacher education course or experience. What has been less clear is how preservice teachers use these lay theories or beliefs about good teaching to help them make sense out of coursework. Because I asked them how they knew to value some ideas and discard as less useful others, these preservice teachers worked very hard to help me understand.
Lauren, Charlie, and Jeneane, all English majors, came into the course with particularly strong, well-thought out goals for their teaching. Each returned to this goal as the basis for making a decision about the potential value of some ideas. Each decided positively about particular ideas because each believed that the ideas and strategies would help them further their own, pre-existing goals.

Lauren's statement was typical. "Developing strategies that help students learn both content and a process to think about the content is the number one thing [Barnett] has taught. That's sort of another way of saying, "Give them the tools." Giving students tools had been a dominant metaphor for Lauren from the start of the course. She entered the course believing in the importance of giving students "little tricks of the trade" and basic strategies for learning independently—she called these "tools".

Charlie too had a tendency to recast Barnett's ideas into language that reflected goals to which he was committed even as he entered the course. From our first interview together, he had expressed his interest in how an English curriculum might provide an opportunity for students to think critically about social issues. "For everything you want to do you could think of a reading and writing or discussing activity that could do it. I'm excited about doing those things because they accomplish the critical thinking and learning goals."

As in Lauren's case, when Charlie utilized his lay theories or goals, these helped him reach rationales that, while not reflective of Barnett's actual language, were close approximations of and mirrored Barnett's rationales. It did no disservice to Barnett's ideas, theories, arguments, or list of suggested activities and strategies for either Lauren or Charlie to translate his language into her/his own system of metaphors and analogies in these instances.

Jeneane's rationales had a different character. Her goals for her future teaching involved establishing conditions and states of mind like tolerance for diversity, comfortableness, and shared authority. These were important to her, and Jeneane
consistently appropriated Barnett's ideas to serve these goals. Her comments reveal her rationales for making positive decisions about the value of several writing to learn strategies. I have cited them extensively because they are striking examples of how all nine preservice teachers used personal history-based beliefs about good teaching as bases for rationalizing the value of course ideas rather than the rationales Barnett extended.

In my class, I would use writing to learn for students to become comfortable with writing and to feel good about their own writing. . . . I am so concerned with students feeling comfortable and students wanting to do something. [The I-Search] is an assignment that students would enjoy and get a lot from. . . . It's letting them figure out what's comfortable for them in writing. . . . It's important to let students know that just because a person is an author, it does not mean they are an authority. I think an I-search can show students how much is available. . . . It's a lot easier to write like that, so that it can't be wrong because there is no form.

This last statement was especially far removed from Barnett's rationale for informal writing. He advocated the I-Search because writing informally would allow students to concentrate their efforts on content rather than form, not because informal writing is impossible to get "wrong." Jeneane made a positive decision about the value of the I-Search and writing to learn in general, but she based her decision on beliefs and attributions about its ability to serve her own, previously constructed goals.

Like Jeneane, most of the other preservice teachers in this study appropriated strategies to serve ends other than those Barnett had advocated. They developed rationales for favoring these strategies and based those rationales on their pre-existing belief structures with little or no modification to those structures.

"These strategies will be interesting to students". One of the most frequently appearing rationales involved interestingness. These preservice teachers argued that a variety of strategies would be good to use because they would promote students' interest in
the class or enjoyment of class. All nine entered the course reporting that they believed that when teachers or activities are interesting students will learn. Therefore, they reasoned, if a strategy might be interesting to students, it would be good to use. Fostering students' interest functioned as a type of goal in itself. Jane offered a good example of this argument.

Journal writing and I-Searches [are] going to be a lot more fun to write. Students will get more excited about [the I-Search] than they would about a research paper. To know that their teacher really cares about how their classrooms are.

Throughout this report, preservice teachers' tendencies to advocate a strategy because they believed it would promote students' interest will be evident. The belief that a strategy would be "fun" or "exciting" is laced throughout their comments and rationales. The priority of "interestingness" pervaded these preservice teachers' language; no other concept appeared as frequently in our conversations.

Barnett did preface his rationale for I-Searches by noting the value of encouraging students to find out about subjects they are interested in. But Barnett went on to tie interest to authenticity of reading and writing. The second half of his argument did not surface in the language of these preservice teachers.

"These ideas are different from traditional methods". Many of these preservice teachers reasoned that a strategy would be valuable because they believed it would be perceived by students as "different."

Fun kinds of different projects that involve using math--kind of like the assignments we were thinking up yesterday--I can see how the creative ones would be good for a change of pace. (Beth, math)

I think a good way to start a class would be to use the discussion methods that we were talking about this morning just to break down some barriers. It would kind of throw students for a loop. (Jeneane, English)
Jeneane was referring to a demonstration activity Barnett used to model how teachers could directly instruct students in how to use small groups as learning tools. He advocated the activity as a means for focusing students' attention on their own small group processes and for eliciting explicit conversation detailing what productive small group behaviors might look like. Jeneane reported none of his thinking or reasoning.

She did continue to invoke the belief that doing something different is good in and of itself. She used this belief as part of her rationale for minimizing her use of lecturing. [Lecturing] wouldn't aid my students in the way they need to be aided. It would be detrimental to them because they go through 13 years of schooling and a lot of it is lecturing or telling. When they get to college, it's the same thing. If there is one class where teachers do something out of the ordinary, something that is not the norm, I think that can really enhance and aid a student in learning.

Jeneane's rationale is presented in full here. She did not add that lecturing should be avoided because students are passive or uninvolved with making meaning while teachers lecture. That was Barnett's rationale.

Jeneane's rationale tied learning to the state of being different. Others shared her point of view.

I got the feeling that [students] would like [my final project]. They would think it was different. (Corinne, English)

I think [the discussion model activity] was fun. I think kids would have enjoyed it. It's sort of a novel thing. If you're kind of getting into a rut, it would be something good to do for a day. . . . [My final project] has value. [student] would enjoy it if they could get into it. It's better than just the same thing all the time. It's good to shake them up a little bit. (Jane, English)
Before leaving this rationale, it is worth noting that many of these preservice teachers admired "weird," "odd-ball," or "different" teachers from their experiences as students. When asked about "good" teachers, four of the nine cited at least one teacher who had been "unusual." My sense is that their association between "good teaching" and the display of unusual behavior or implementation of unusual instructional formats was a powerful one.

"These ideas provide bonuses for teachers." The final group of rationales that these particular preservice teachers offered for using the strategies from content area reading centered around bonus features they reported that they saw as inherent to the strategy. Beth and Dave talked about writing in math classrooms as a way to allow the teacher to "motivate" students to read the math textbook.

I think if students knew that we'll write about [the reading assignment] tomorrow, they might be more motivated to stick with it. (Beth, math)

Every once in a while, I think that they have to be aware that I know that they are just skipping the text [assignments]. (Dave, math)

All three math majors also talked about writing as a way for the teacher to know whether students understood material—as a sort of informal test.

By writing in this journal and saying that you don't understand something, it would be good and also as a teacher you can see exactly where the kids are having a problem. Having kids [write] an essay about a math problem [would be] a way of seeing if they really understand something. (Dave, math)

[Put] students in the groups like we had yesterday; discuss what they got out of [the reading]. See if they got what you wanted them to get. I think that's one way to use it. (Beth, math)

From [writing], you really can tell if a student really does understand what they are talking about. (Will, math)
Barnett's rationale for writing to learn argued that students' writing allows them to learn for themselves. He attempted to distinguish writing to learn from traditional, test-like writing to show learning. Using writing diagnostically as these math majors advocated may or may not actually violate his argument depending on whether they intend to grade that writing. What is significant here is that none of these three math majors' rationales for positive decisions about the potential of writing in math classrooms included or reframed Barnett's argument. In fact, each noted that she/he was not sure whether writing actually would help students learn math concepts directly. Will did add that writing could offer students a way to "express themselves" in math.

Their rationales were based implicitly on an epistemology that calls for a teacher to tell knowledge to a student. Such an epistemology does not admit the possibility for student discovery. In fact, in repeated interview sessions, all three of these math majors stated emphatically that the nature of math requires that teachers tell it to students.

The fact that these preservice teachers were able to find rationales for deciding that course ideas were valuable is encouraging. The fact that they adopted so few of Barnett's rationales and arguments is worth our extended attention.

Looking At Our Assumptions And Objectives

Did Barnett's students get it right or wrong? They reported an enthusiasm for many of the instructional strategies they encountered through the course (for report of strategies they dismissed, see Holt-Reynolds, 1991b; in press). They left the course ready to defend journals, pre-reading activities, writing to learn assignments and small group discussions as valuable instructional options. They also left the course talking about how those options would be interesting to students, make them comfortable, allow them freedom of expression and help them see the limitations of authorities. If they incorporated any of Barnett's principles for how teachers can foster either independence in learners or metacognitive awareness, they did not discuss it with me.
What are we to conclude from these data? The answer to that question depends in large part on how we understand and frame our assumptions about the activity we call teacher education and the activity we call learning to teach and on our objectives for each.

Assumptions

"Turning theory into practice" is a slogan that seems to capture one set of assumptions we might make about the activity of teaching new teachers. We could think of teacher education as a planned series of courses and experiences designed to pass the professional, pedagogical knowledge (Shulman, 1986) that expert teachers have on to novices. "Knowledge that" becomes "knowledge of" (Berliner, 1985) through exposure to that knowledge followed by practice implementing it. At its most extreme, this assumption also implies that preservice teachers come to their formal study of teaching with little or no prior knowledge upon which to build.

We might assume instead that preservice teachers arrive with implicit theories and personal history-based beliefs. Many of us involved in exploring life histories, biographies and other forms of personal histories would argue for such a stance. We might assume a personal history-based knowledge of teaching and go on to expect that preservice teachers will check that knowledge, those beliefs and previously established goals against the research-based, professional knowledge we offer through coursework.

In either case, we will find ourselves enmeshed in an implicit theory of our own. Both these sets of assumptions imply that research-based theories about teaching, learning, students and classrooms will naturally, automatically receive preference in the minds of preservice teachers over the personal history-based beliefs they brought with them into the course. Both imply that we believe preservice teachers will a) identify their own lay beliefs, b) recognize that these beliefs differ from the principles we are inviting them to explore, c) elect to temporarily suspend their beliefs and try ours on, and d) replace, inform, expand or tailor their beliefs to accommodate ours as any one or all of these actions becomes necessary.
Somewhere there may indeed be preservice teachers who act in these ways. I have yet to encounter any of them. The nine who spoke with me formally and whose responses are documented here represent the kinds of reactions I overhear informally across the coursework I teach. Preservice teachers report testing our principles against their own experiences as students and comparing our attributions for desired student outcomes with their own. They report a decided preference for their own, lived experiences as data upon which to build professional conclusions. They treat their personal histories as prototypical and generalize from the conclusions based on them to develop predictions about how other students will react to teacher actions. I have written about their internal dialogues (Holt-Reynolds, 1991a) and their processes for converting personal experiences as students into prescriptions for themselves as teachers (Knowles & Holt-Reynolds, 1991) in some detail elsewhere. Suffice it to say here that the conclusions preservice teachers have already reached about what teacher actions were causal in their own positive or negative experiences as students act as givens against which they judge the validity, value and potential of the principles and strategies we advocate in coursework. Any assumptions we might harbor about preservice teachers adjusting their personal history-based beliefs as a natural, spontaneous part of engaging in coursework seem ill founded (see Ball, 1988; 1989; McDiarmid, 1989).

The data represented here suggest quite a different picture. These nine preservice teachers gave no indication that they rejected any of Barnett's rationales; they talked as if their own were the same as his. Only Jane noted that she disagreed with Barnett. And Jane noted this on only one occasion. In over eight hours of interview conversations with each of nine individuals, only one said that her view of teaching differed from her professor's.

Does this suggest a profound conspiracy of impression management (Shipman; 1967)? That seems doubtful since I was not a part of the assessment of these individuals. In fact, I regularly invited them to take issue with Barnett—as he did himself through the
interactive journals. I suspect that these nine were simply unaware that their own beliefs and rationales differed from Barnett's. If so, then our assumption that preservice teachers can and do distinguish between the beliefs they currently hold and the principles we ask them to consider is unfounded.

Rather, these preservice teachers acted as if Barnett's goals for good teaching matched their own. They proceeded to use those goals—without questioning, reshaping, informing or enlarging them—as a framework around which to hang instructional strategies as they found them useful.

Objectives

This behavior may be fine if we hope that preservice teachers will leave our courses carrying a fat bag of teacher tricks that they can adapt to the contexts in which they find themselves in the years ahead. If we want preservice teachers to develop technical expertise at setting up cooperative learning tasks, writing clear lesson plans, imagining clever schema activation pre-reading activities, crafting interesting and authentic writing tasks, setting up and evaluating journals, then the rationales they develop for defending these actions are not important. We can continue to operate programs of teacher education where teacher educators like Barnett are faced with students they know little or nothing about, "teach" them for a term and evaluate their "progress" using decontextualized, amorphous projects like a series of imaginary lessons which illustrate course ideas. We can continue to count this activity as getting it "right"—as learning to teach.

If, however, we hope that preservice teachers leave our courses more aware of their personal history-based beliefs and habits of making sense out of classrooms, able to consciously choose to frame classroom events in new ways and ready to defend instructional practices using a variety of rationales, then we need to craft programs of teacher education where teacher educators like Barnett have ample opportunity to develop personal knowledge of the histories of the preservice teachers with whom they work. We need ways to explicitly invite preservice teachers to monitor their progress toward
metacognitive control over their decisions as students of teaching and we need ways to evaluate that progress. We need to consider carefully what kinds of coursework experiences can invite preservice teachers to focus attention on how they evaluate new pedagogical principles rather than on what they can do with new instructional ideas. We will need to shift resources from support of technical skills and toward support of rationale building. We will need to confess that often, preservice teachers can get it technically "right" while on other levels getting it "wrong."

We will also need to consider the relationship between coursework and field experiences. This report does not extend to the field. None of these nine were followed into student teaching or their first year in a classroom. Consequently, I cannot speculate about knowledge they developed in practice (Schon, 1983) or how the values they placed on these strategies played themselves out in actual practice. Neither can these data shed much light on the relationship between rationales that preservice teachers can articulate and practice they can produce without an accompanying explanation. Intuitive ways of knowing (Arnheim, 1985) and acting lie beyond this study.

Conclusion

Hawkins (1974) writes about the relationship of teacher, student and some third thing--It--which they explore and create together. In teacher education coursework settings, we too interact with students around some third thing--learning to teach. Together, we construct a persona called Teacher which our students will bring to life in classrooms with students of their own. I suspect we are far more conscious of how we hope they interact with students around a subject matter It than we are about how we should/could interact with them around the It they have come to us to study. We seem far more sure about what "good teaching" looks like in elementary and secondary settings than we are about what "good teacher education" looks like in university classrooms. Our models of good elementary and secondary teaching have been built from a knowledge base about how young people learn. Might we build a model of good teacher education out of a
similar data base about how preservice teachers learn in coursework contexts? It is time to identify our assumptions, check them against preservice teachers' experiences and point our programs of teacher education in the direction those data suggest. Only then will we be able to judge whether the preservice teachers we teach are getting it right or wrong.
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