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PROFESSIONAL KNOWLEDGE, TEACHER EDUCATION AND SELF-STUDY*

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Abstract

This chapter explores the relationship between professional knowledge and teacher education and the ways self-study research might strengthen that relationship. To do this, using a cartography metaphor, a series of questions are asked and answered with the overarching question of, ''What counts as knowledge in the research on the self-study of teaching practices?'' Topics in this chapter include: a discussion about the nature of knowledge; a review of the professional knowledge base as it relates to teacher education including political, moral, and ethical issues; and, an examination of how self-study can-should influence these considerations. In the last section of the chapter, the third space is explored as a place where alternative perspectives can challenge the traditional framework for approaching research.

Head in hands, at the dawn of the neo-post-retro-symbolic-magically-realistic age, a cartographer sits surveying the educational remains of a confused time. She asks herself, "How can I make sense of a(n educational) world where thinkers shortcut their understandings of the nature of knowledge and underestimate the strength of alternative views?" And she recognizes that looking back always offers an easy task because the lived experiences have been lived, pondered, and imbued with the genius of hindsight. What is hidden in details, she thinks, emerges in conceptualization. How will she proceed? Simply, she decides. To map the issues and concerns of this former time in educational research, she will ask herself a series of questions and begin the process of unraveling, if possible, the understandings of the time through her maps.

Claims have been made that the research recognized as the self-study of

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teaching practices has been the most trend-setting work done in several generations of research in teacher education (Zeichner, 1999). What makes that so? In what ways has the self-study of teaching practices affected the professional knowledge base of teaching? This chapter explores the professional knowledge base as it is currently defined and examines the ways in which reform in teacher education has been influenced by it. To do this, the overarching question is what counts as knowledge in the research on the self-study of teaching practices? Topics in this chapter include a discussion about the nature of knowledge, a review of the professional knowledge base as it relates to teacher education including political, moral, and ethical issues, and an examination of how self-study can-should influence this area. Using self-study to reveal one's experience or to encourage teacher educators when they look carefully at their own practice, or to underscore the multiplicity of ways to consider the professional knowledge base in teaching has dramatically changed teacher education. This section of the Handbook locates a place for the self-study of teaching practices as is mapped out in the literature of research on teaching as well as redefines the ways that knowledge can be understood through self-study. This chapter initiates that process.

Metaphor

Using the metaphor of a cartographer (McLaren, 1986) in this chapter, I attempt to chart ideas. As a cartographer surveys land and locates mountains, rivers, and roads on a map, I attempt to map aspects of identified parts of the terrain to form a look at professional knowledge, teacher education, self-study and their relationships to each other and beyond.

When planning a map, a drawn or printed or graphical representation of something, a cartographer considers the map's purpose and its likely users. The design helps communicate information effectively. Maps are made through observation and measurement to locate boundaries, access distance, present angles, and chart elevations. Often thematic maps illustrate one particular feature. A topographic map, for example, shows the surface features of land. The language of maps expresses spatial, and other, relationships in a variety of symbolic ways. Sometimes a collection of maps is necessary to fully understand the places and the time.

In this chapter, I attempt to generate a mapped portrait of the world of educational research focused on professional knowledge. In this map series, I label the less apparent territories or ideas involved in our work as well as identify the obvious landforms. Other maps include a depiction of the weather that moves across the terrain, the water, the people, politics, the inner surface of the landscape, and more to plot ideas. The overlay of these maps will also provide a narrative representation designed to reveal the language used to describe this world. One important point is the distinction between maps and the "the real thing" – the land itself. While maps may tell a story, they may or may not depict the lived experiences of all involved.

First Map – Relationship Among Professional Knowledge, Teacher Education, and Self-Study?

To initiate the sense-making process, our cartographer begins by pondering, "What might a map of this time look like? Might I create a chart of landforms or peoples or history that would best represent this time?" She understands that if she starts the conversation in any old paradigms she will struggle and probably fail to fully comprehend the issues, that is, the worth of self-study and its contribution to understanding professional knowledge. She decides to prepare a map from space where she can scan the entire surface and ask, "what are the relationships among professional knowledge, teacher education, and self-study?"

Looking at this global view, there are relations among professional knowledge, teacher education, and self-study. Professional knowledge is addressed in teacher education programs and the rudiments of self-study are presented as a way to examine novice teachers' (and more experiences teachers') understandings of professional knowledge in the teaching setting. Just as from space one can see the broad outlines of where the landforms meet the oceans and the population centers blend into the empty spaces, the relations among professional knowledge, teacher education, and self-study meet with and blend into each other. Or do they?

The professional knowledge of teachers has most often been discussed in relation to teacher education and the teaching context. Clandinin and Connelly (1995; Connelly & Clandinin, 1999), for example, have identified this knowledge as influenced by people, places, and things and they suggest that it is a synthesis of theoretical and practical perspectives in teachers' lives (Clandinin & Connelly, 1996). For Munby (1987), professional knowledge "consists of more than what can be told or written on paper" (p. 3). Munby and Russell (1992) use Schön's (1983) notions of practice to situate experience as critical to the development of professional knowledge. In fact, Munby, Russell and Martin (2001) assert that there are a variety of definitions for professional knowledge and more generally regarding knowledge itself. Cochran-Smith and Lytle (1999, and chapter 16, this volume, for example) see professional knowledge within the context of teaching and delineate this knowledge as for-, in-, and of-practice. If we accept that professional knowledge for teaching has many influences and extends beyond practice to theory, it seems that teacher education has a relation with professional knowledge. Does self-study have a similar relation?

Within the past fifteen years, the self-study of teaching practices has emerged as one way to examine the experience of teaching teachers within the academic setting. In many ways, the professional knowledge of teacher educators is a given and very much set within the context of teacher education. The challenge comes from questioning in whether or not the work is viewed as valid and acceptable within the context of scholarship (Cole & Knowles, in this volume, for example). In turn, these questions address whether or not this work can be presented as professional knowledge in more than an anecdotal way. Allender (chapter 13, this volume) asserts that traditional academics balk at the relativity introduced

into their notions of research and raise concern about the alternative views of reality that have been imposed into their perceived canon. If this is true, then self-study seems to have a relation with professional knowledge and teacher education, but a tenuous one at best. Is this true?

The cartographer realizes that any one map may be incapable of capturing all that is necessary for understanding. While the map from space can offer outlines and fuzzy silhouettes, it does not seem to provide the detail necessary to understand the many elements involved. Perhaps, she thinks, I need to step back and consider the influence of weather on my map from space? Perhaps, she considers, I need to ask a more elemental question.

Second Map – What Counts as Knowledge

"Before clearly viewing the earth from space", our cartographer contemplates, "we need to understand the influence of the atmosphere, those clouds, those air currents, those pockets of pollution, and, more generally, the weather – on our perceptions." So, too, before considering the relations among professional knowledge, teacher education, and self-study, we need to seek some understandings of knowledge and the ways those definitions influence our view.

Weather maps offer charts and tables that trace the patterns and behavior of the atmospheric conditions. These maps can include sky conditions, wind, temperature, and barometric pressures that detail fronts, convey directions, enumerate pressures, and suggest climatic developments. And, of course, weather is an interaction between the atmosphere and the land. For example, when the atmosphere contains precipitation that reaches mountains, the windward side of the landform receives far more rain than the leeward side. As with weather, there can also be unpredictability in the exploration of knowledge.

Our cartographer begins by asking, what is the nature of knowledge? How can she present with some adequacy an understanding of the complexities of this question? She reminds herself that viewing this question from within old paradigms will only cause tension and potential failure of understanding as old notions interfere with understanding new ones. What was the "weather" like in this time?

Tensions Among Views

Howe (2001) claims that the qualitative-quantitative debate is "philosophically moribund" (p. 201). Citing Rabinow and Sullivan's (1987) interpretive turn, he sets the "philosophical debate … between those who seek some new understanding of knowledge, rationality, truth, and objectivity (i.e. transformationists) and those who are ready to abandon these concepts as hopelessly wedded to the bankrupt modernist project (i.e. postmodernists)" (p. 207). In contrast, Richardson (2002) asserts that while "tensions between qualitative v. quantitative methodology died down for a while between the two Handbooks, they are again strongly present, but playing out in a quite different arena – Washington D.C."

(p. 15). In her search for a center of teacher education she finds that postmodernism "has questions that jar the very foundations of our understanding of research: These questions concern the nature of knowledge, who owns it, who produces it, and how is should be used" (p. 3). Further, from her perspective, the discord surpasses the "quantitative-qualitative methodology controversy" (p. 3) addressed in the third *Handbook for research on teaching* and focuses "on the very nature of research and knowledge and the uses of research in the improvement of practice" (p. 3).

Clearly Richardson sees the political implications (to be addressed later in this chapter) for the potential downpour on the metaphorical windward side and for the drought on the leeward side. The National Research Council (Shavelson & Towne, 2002) has published a report that questions the philosophical nature of knowing with Feuer, Towne, and Shavelson (2002) reiterating that perspective in a themed issue of *Educational Researcher*. From their view, they want a return to more traditional scientific approaches in research and the search for "the" truth. Curiously, they seem to support diversity while searching for the one truth. St. Pierre (2002) asks "Is the NRC report a volley in another skirmish of the paradigm wars?" (p. 27) and urges those researchers with differing views to continue the critique of current notions. Clearly, the weather of this time was turbulent. Views swirled. The cartographer asks again, what counts as knowledge?

For views that encompass a broader look at knowledge in educational research see the works of Anderson and Herr (1999), Clandinin and Connelly (2000, for example), Cochran-Smith and Lytle (1999, for example), Fenstermacher (1994), Korthagen & Lagerwerf (1996); Loughran (1999 for example), Munby, Russell, and Martin (2001), and Richardson (1994). For the purposes of this chapter, I am going to focus on aspects of knowledge related to educational research.

Our cartographer wonders if "how a person thinks about knowledge and meaning-making is critical to how that person understands the world." Is it a Cartesian binary knowing? A postmodern knowing? A poststructural feminist knowing? A new historicist knowing? A transformative knowing? And within that view, is knowledge static? Dynamic? How do social justice and position and power fit? Do they?

Possible Definitions

But first, how is knowledge defined? The Merriam–Webster dictionary defines knowledge as "being aware of something" or the "range of one's information or understanding" (2003). This definition extends to include "the fact or condition of having information" and "the sum of what is known: the body of truth, information, and principles acquired by mankind (sic)" (2003). Further, this definition includes the term scholarship and states that the use of this element of the definition "implies the possession of learning characteristic of the advanced scholar in a specialized field of study or investigation" (2003). These are, of

course, are the mundane definitions. None of them seem to provide a philosophical twist. The Cambridge Advanced Learner's dictionary continues along these same lines defining knowledge as awareness and "understanding of or information about a subject which has been obtained by experience or study, and which is either in a person's mind or possessed by people generally" (2003). A visit to the Stanford Encyclopedia of Philosophy (2003) finds no definition of knowledge without words like mutual or self-attached and, sometimes, equations. These definitions, however, seem to suggest there is some link with truth as asserted by a series of someones.

Perhaps a way to think about these definitions is in a psychological frame (including any notion in a person's head that s/he believes to be knowledge) contrasted with a philosophical frame (relying, at least in part, on warrant or justification). This suggests that any beliefs might be considered knowledge from a psychological view and that belief must have justification with an objective world from a philosophical view. Certainly this is a dualistic perspective, but is it too simplistic?

If we broaden our view by adding the philosophical categories of practical and formal knowledge, what happens? Practical knowledge, often defined as the knowledge that draws from experience and is used in a practical or everyday way (usually this knowledge utilizes theoretical or formal knowledge that is already known) and formal knowledge, often defined as the knowledge produced by researchers for generalizable use, are often presented in opposition. Are they oppositional? Do we need to contest limiting definitions to broaden claims for a different reality?

Weathering the Modernism/Postmodernism Storms

The question remains: "What counts as knowledge?" From a modernist perspective where we find positivism situated, what seems to count as knowledge are large-scale studies that have universal qualities and have evidentiary proof. Much of the process-product work in educational research fits this description. Work from this perspective includes levels of certainty, surety, and generalizability that occurred only in varying degrees after the interpretive turn. Often positivist work seems to suggest that knowledge is static and unchanging. If we call the modernist perspective the old paradigm, what do we learn about the new paradigm?

For Kuhn (1970),

> the transition from a paradigm in crisis to a new one from which a new tradition of normal science can emerge is far from a cumulative process, one achieved by an articulation or extension of the old paradigm. Rather it is a reconstruction of the field from new fundamentals, a reconstruction that changes some of the field's most elementary theoretical generalization as well as many of its paradigm methods and applications. (p. 85)

Hamilton & Pinnegar (1998) suggest that Kuhn (1970) finds resistance to shifts

in ways of knowing [that] is not only expected but can also be extensive" (p. 235). Polanyi (1962) challenges the modernist perspective, stating that theories "of the scientific method which try to explain the establishment of scientific truth by any purely objective formal procedure are doomed to failure" (p. 135).

As ideas are deconstructed and restructured, a transformation of ideas occur from within one's understanding. Lyotard (1984) suggests that postmodernism does not, in fact, occur at the end of old ideas, but rather "in the nascent state" (p. 79). Rather than "coming after" perspectives have been developed, Lyotard asserts that postmodernism comes at the point of initial creation – decentering how we understand the term "post". From this perspective, the process of grappling with, critiquing, interrogating, and decentering seems a part of the intellectual growth process. For Jameson (1991), postmodernism confronts the modern as it is born from questioning old ideas – socially, socio-economically and beyond. From this perspective knowledge seems uncertain.

Considering her map, our cartographer sees turbulent weather with different forces of differing strengths asserting themselves into the atmosphere and against the land. As we reckon with these ideas, we see people resisting and clutching their points of view. Weather is not a static phenomenon – and time (and ideas) march onward, slowly.

Often Aristotle (1962), for example, is cited as the philosopher of choice to substantiate the more traditional views. We will not spend long discussing him because excellent discussions about his work and perceived value can be found elsewhere (for example, Fenstermacher, 1986, 1994; Hansen, 2001; Korthagen, 2001). Suffice it to say that he suggests the binary relation of practical and formal knowledge and views the practical side as necessarily flawed (Hansen, 2001) as a result of the lived experience of those involved. In contrast, Aristotle sets formal knowledge in a conceptual frame with rules to guide the reasoning argument toward a flawless, universal truth. With formal knowledge the warrant or justification for the argument must have evidence to substantiate it. Considering this from an atmospheric perspective, the weather is either hot or cold, sunny or not, humid or dry. From a reasoning perspective, there is an implied value on truth and conventionality of argument that practical knowledge does not have.

As the weather can shift back and forth and back and forth in temperature and outlook, since the 1950's (Jameson, 1991) the postmodern/poststructural views have been entering our atmosphere. Sometimes in great gusts, sometimes in subtle degree shifts. This interpretive turn (Rabinow & Sullivan, 1987) came, in part, in response to modernist rules and structures. As we see, these views still generate turbulent responses, including the rejection of this work by the National Research Council (Shavelson & Towne, 2002), as not particularly helpful in educational research.

Clandinin and Connelly (1996) assert, that what counts as knowledge depends on the situation, the people involved, the setting, and more. For those researchers with a postmodern/poststructural perspective, a binary view of the world brings little satisfaction. They recognize the world as uncertain (Hamilton & Pinnegar,

1998) and as a social construction influenced by personal history as well as social history. In their writings, these researchers claim that lives need to be viewed more fully (Bateson, 1989; Clandinin, 1995). Rather than reducing life to separate bits and pieces (Bateson, 1989), many from a postmodern/poststructural perspective attempt to view lived experience (Van Manen, 1990) within context. Moreover, many of these researchers ponder the shortcomings of knowabilty and the ways that these shortcomings contribute to deeper knowing (Felman, 1987).

Ellsworth (1997) asserts that accepted, "reality ... is always someone's reality, constructed in and through particular intentions and interests, and from particular locations on multiple networks of power relations" (p. 179). Citing Ronald Good (1993), Zembylas (2000) refers to the wispy or hard-to-hold-onto nature of postmodernism (p. 163). This intangible element prompts Sleeter (2001) to ask, "to what extent is our knowledge ... a product of our own minds? (p. 213) and continue asking, do "facts closely reflect reality but the sense we make of them reflect human subjectivity? Or are facts themselves also social construction?" (p. 132). The teller of the story affects the story and the ways knowledge is understood (Sleeter, 2001).

From the postmodern/poststructural perspectives neutral points of view are non-existent (Zembylas, 2000). Hoban (2002) writes that Lagemann (2000) views history as an imaginative reconstruction (p. 246). As such, Ellsworth (1997) sees it as representing infinite possibility. MacKinnon & Erickson (1992) claim that knowledge is mediated, never immediate" and that reference to context is necessary to the "role of meaning and cues" (p. 198). The unconscious as well as the conscious is critical from these perspectives and sometimes manifests itself in the voice of the Other (Felman, 1987). Put another way, Derrida (1976) suggests that presence always contains absence. That is, the Other is always present in idea if not in body as people explore their mental and physical worlds.

Importantly, the notion of a privileged center (to research) focused on culture or class or race or history subverts into a decentering and critical examination of the issues (Ellsworth, 1997) in postmodern/poststructural perspectives. An example would be the work of Griffiths, Bass, Johnston and Perselli (chapter 17 in this volume) who attempt to decenter social justice issues to encourage a deeper analysis of those issues as they relate to self-study.

Postmodernism "... does not encourage normlessness, but, much more important, requires that persons assume responsibility for truth" (Zembylas, 2000, p. 182) although it would seem that some critics might view it this way. Phillips (1987), for example, warns researchers to attend to warrant if they seek believability. Feldman (2003) asserts that "we must have good reasons to trust [findings] to be true" (p. 26). In keeping with this perspective, Hamilton and Pinnegar (2000) call for the need for integrity and trustworthiness in application to research but perhaps this is getting ahead of the mapmaker.

We return to the cartographer's question – what counts for knowledge? Like Clandinin and Connelly (1996), her answer must be it depends. If someone asks Aristotle (if he were alive, of course) the question, he might provide a formula

for finding the essentialized truth for all persons. On the other hand, if that same person asks a postmodern/poststructuralist this question, s/he might attempt to interrogate or trouble (Lather, 2001) the question and offer possible answers. What the cartographer is not going to do is offer the range of definitions from all perspectives. Instead, she presents possibilities.

Beyond the earlier definitions, Wells (1999) defines knowing as an "intentional activity of individuals who, as members of a community, make use of and produce representations in the collaborative attempt to better understand and transform their shared world" (p. 76). Knowledge has been defined as "that body of convictions and meanings, conscious or unconscious, which have arisen from experience, intimate, social and traditional, and which are expressed in a person's actions" (Korthagen, 2001, p. 233). In fact, teachers can map their knowledge in ways (Calderhead, 1988a) in ways that link knowledge and action (Calderhead, 1988b). These definitions offer a social and mediated view of knowledge.

In the literature, we find knowledge of people, knowledge of educational practice, knowledge of concepts, knowledge of process, and knowledge of control. There is management knowledge (Eraut, 1998), situated knowledge (Leinhardt, 1988) and nested knowledge (Lyons, 1990). Clearly, there are many ways to define knowledge (Munby, Russell, & Martin, 2001). Fenstermacher (1994) suggests that these simply represent ways to group ideas, but for now these are some of the ways to consider knowledge.

In a personal communication to Munby, Russell and Martin from Fenstermacher (cited in Munby, Russell, & Martin, 2001) he asserts that,

> The old criteria for "knowledge" are kaput, while there are yet no new criteria to take the place of the old. A difficult spot. … The question is whether this difficulty is temporary. Will we eventually gain a new, more generous and robust set of criteria for using the concept of knowledge, or are the post-modernists going to prevail with their claims that there are multiple sets of criteria, depending on one's culture and discourse? (p. 879)

What might be more generous and robust? Knowledge, it would seem, is more than a set or sets of beliefs. Richardson (1996), building on the writing of Feiman-Nemser and Floden (1986), reminds the reader that while there are similarities between knowledge and beliefs, there are differences as well. It seems that more than beliefs, knowledge entails some evidence of what accounts for truth according to a public audience. Would a public accounting strengthen robustness? Later in this chapter we will return to this issue. Suffice it to say now that the issue may well be more about who identifies the concept of knowledge as robust (by the definitions they use), rather than the actual robustness.

And might we define truth? From Aristotle's perspective there must be some level of universality, but the postmodern/poststructural views address difference and variety. Popkewitz (1997), addressing the interpretive turn, suggests that the struggles come from who defines "what counts as truth" and, "the rules on which that truth is based and the conditions in which that truth is told" (p. 27).

Conle, Louden & Mildon (1998) find that there are, "tensions between theoretical and practical reflection" (p. 237) when considering issues of truth. This might be a question of – whose truth is this? Clifford (1986) finds that truths can be intrinsically inadequate. To address the possible inadequacy, perhaps, like the earlier response to the equation of knowledge, the definition of truth also "depends." Richardson (2002) discusses a "better truth" (p. 17). This truth "is not final … [and] should be larger, roomier, more complex, and more authentic" (p. 18).

This is not to say that empirical work is not valued in the work of postmodern/poststructural scholars, it is. Self-study researchers make assertions in their work and always query themselves about the evidence that supports them. Their warrant, however, seems to be of a different sort. Their warrant seems to be based on trustworthiness, integrity, and solid research methodology rather than the more formal approaches taken by the more conventional researchers. Now, not all self-study scholars do this all of the time. And, early into the work of self-study there was less visible attention given to these issues as we found our way in a new paradigm. The attention was there, but it was not made public. Hence, perhaps, the birth of concern demonstrated by more traditional readers of the work. But, again, we get ahead of the mapmaker.

Having visited many cites and readings trying to forge a more complete picture of the weather of this (educational) world, clear skies remains elusive. There are those with a more traditional, modernism perspective, but can one define perspectives that resist definition? It is this very resistance that is a part of the postmodern/poststructural perspectives. In his writing, Howe (2001) also connects the transformative perspective to the postmodern, and seems to advocate for that perspective because of their interests in transforming their situations. He and others (St. Pierre, 2002, for example) recognize the importance of challenging systems that seem to promote the singularity rather than diversity of ideas. Because this is a chapter focused on knowledge and teacher education and self-study, we will briefly, very briefly, and summarily, very summarily, look at a few relevant points to understanding these perspectives.

Postmodernism/Poststructuralism: A Brief Summary

While Vygotsky may not (if he were alive, of course) identify himself with either perspective, his notions of a sociocultural world (Vygotsky, 1978) that, "develop through the mediation of others" (Moll, 2001, p. 113). For him people work in relation to understand and participate in their world. Lacan, according to Felman (1987), finds the Other to be central in this. These are people with whom people consciously or unconsciously interact to understand their world and who help them consider who they are – and are not. In Buber's work (1983), we read about the connectors we have to others' lives. According to him, these connections are vital to our aliveness. Bourdieu (1990) promotes the multiple ways of knowing and understandings of the world that focus on experience and our relations with others in our world.

Lyotard's (1984) work decenters itself in its critique of the legitimation of knowledge. He asserts that there are grand narratives and smaller stories (petits recits). (See Griffiths, Bass, Johnston & Perselli, in this volume, for a broader discussion of this issue). If we accept that there is one large narrative that explains our lives or our experiences, without considering the influence of individual histories or background, we essentialize and, hence, stabilize the views of the dominant culture. He "promotes resistance to totalizing ideas and advocates for the deconstruction of the ways that ... research has been traditionally undertaken" (Zembylas, 2000, p. 161). He also brings a support for diversity in understanding the world (Zembylas, 2000, p. 173). Zembylas finds that Lyotard:

> warns us that demanding consensus has become an outmoded and suspect value ... Hence, using our imagination, intuition, and emotions we can invent, history, science, intuition, and emotion share common boundaries. Their domains oscillate into one another so that the idea of ever distinguishing between them becomes more and more chimerical. (Zembylas, 2000, p. 166)

Given this, the relation of knowledge and power suggests questions related to definitions of knowledge and who claims to know or own those definitions (Lyotard, 1984).

In the multiple postmodern/poststructural worlds, language is a key. How people express themselves and to whom is relevant to the ways people experience power and interact with their world. Foucault (1977, 1978) suggests that the self is fragmented and lacks unity. According to Zembylas (2002b), in a discussion of Foucault's ideas, "the self is shaped and reshaped as a continuous project of subjectivity" (p. 203). For Foucault, as mentioned earlier in a discussion of Lyotard, power and knowledge are linked together. Importantly, while these terms may have negative connotations for many of us, Foucault uses these terms in a neutral way viewing power as related to action" (Gore, 1993, p. 51). Gore writes: "As Foucault (1980) sees it, every relation between forces is a power relation, where force 'is never singular but essentially exists in relation with other forces, such that force is already a relation' (Deleuze, 1988, p. 70)" (Gore, 1993, p. 51). Cole and Knowles (chapter 12, this volume and elsewhere), for example, interrogate the power-knowledge relations in academia.

To this, we bring our "technologies of self" (Foucault, 1977) that express the manners with which people experience their lives. Personal history, experiences, the relation with the larger world, and more are part of these technologies. Fendler (2003) suggests that critically reflecting on one's experiences is no, "guarantee [of] an uncompromised or unsocialized point of view" (p. 21). From this perspective, we must attempt to decenter self from experience to help deconstruct and critique our lives. Viewing the self as text is a way to query oneself (Phillips, Donna, 2001, 2002). These technologies of self support people as they address the power-relations in their lives as well as the "regimes of truth" (Foucault, 1980, cited in Gore, 1993, p. 55). These regimes of truth, existing in any society, represent:

> Its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanism and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are changed with saying what counts as true. (Foucault, 1980, p. 131, cited in Gore, 1993, p. 55)

Zembylas asserts that, "experience itself does not constitute self-knowledge. … Only by interrogating the discursive place from which questions of identity are posed can we trace how identify is subjected to the social and historical contexts of practices and discourses" (Zembylas, 2003, p. 114).

Bakhtin is another theorist whose perspective should be mentioned here. For him, voice and language mediate the ways that people and their words shape and are shaped by their surroundings Daniels (2001) states that Bakhtin's perspective views language as:

> over populated with the intentions of others, reminds us that the processes of mediation are processes in which individuals operate with artefacts (words/texts) which are themselves shaped by, and have been shaped in, activities within which values are context and meaning negotiated. (p. 12)

Bakhtin uses voice to describe the consciousness brought to the conversation when a person speaks. This voice has a perspective, including values (Daniels, 2001). Further, Danielewicz (2001, p. 140), citing Bakhtin, asserts that he sees language, "for the individual consciousness, lies on the borderline between oneself and the other" (1994, p. 77).

While I have written this as if these ideas emerge in a linear and connected fashion, they have not. Rather, I have drawn these ideas together as I have attempted to understand my work and their work. The critical point here is that one view of how to understand knowledge, its definitions and the elements attached to it, essentializes it.

A Few Caveats

I recognize that postmodern and poststructural views differ. However, establishing my point about understanding of knowledge rather than an understanding of knowledge, I have linked them. In fact, there has been precedence set for this in earlier writings (Gore, 1993, for example).

Further, the views presented here clearly have a western perspective. Because there have been few detailed looks at these issues by self-study scholars prior to this time, I am hindered by history and recognize that some maps have yet to be opened. Recognizing this chapter as a beginning to this examination helps broaden the view and leads to greater inclusion.

Succinctly, our cartographer thinks, this map suggests that other ways of viewing knowledge exist and have equal value with earlier views. Privileging one view over another does not represent this world.

Third Map – What Counts as Knowledge in Teaching?

"At this point, to understand this, I need another map," our cartographer realizes. A topographical look at this world may help depict the rise and fall of the terrain in a representation of natural and selected features.

What does count as knowledge in teaching? Is it teacher research? Is it the study of one's own practice? Is it large-scale studies and grand narratives that attempt to essentialize teachers as if the good ones might be replicated? In the past, what counted as knowledge in teaching to some degree focused on information generated by researchers and learned by teachers.

The topography of knowledge in teaching has many dips and peaks. The terrain is marked with mountain ranges and deep lakes. Historically, educational researchers examining the knowledge of teachers have pondered what teachers know, how they know it, when they know it, where they know it, and, perhaps, most importantly, how they know they know it. More recently, teacher educators have attempted the same exploration. This section explores definitions of knowledge in teaching and possible distinctions among those definitions.

Korthagen (2001) suggests that teaching involves more than skill mastery. Rather, it entails a way of relating to self and others (Korthagen, 2001, p. 264). Teachers do need, "to be very knowledgeable about the subject or subjects they teach" (Porter, Youngs, & Odden, 2002, p. 265). This knowledge depends on content, age level, development as well as personal history. Many times teachers are "confronted with the inadequacy of their knowledge" (Zembylas, 2000, p. 175). Often there is a lack of respect for the knowledge of teacher educators (Hinchman & Lalik, 2000). Sometimes communities of teachers/teacher educators "share sets of important questions and varieties of methods for approaching problems" and support the exploration of knowing in teaching (Leinhardt, 2001, p. 336). According to Ellsworth (1997),

> teaching is not normalizable. It happens in disjoined and yet enfolded conceptual and social spaces … Its in-betweeness and all-at-onceness corrodes the engine of system. Where, when, and how teaching happens is an undecidable. This is what saves it from being a skill or a technology. (p. 193)

Is this knowledge of teaching? Ball, Lubienski, and Mewborn (2001) suggest that there is, "a distance between studies of teacher knowledge and of teaching itself" (p. 449). While "teaching depends on knowledge … knowing is not synonymous with teaching" (Ball, Lubienski, & Mewborn, 2001, p. 450). Further, they identify whether making the distinction that, "studies of knowledge are or are not studies of knowing in teaching" are important to make (p. 450).

In the past, teachers have been identified as users rather than producers of knowledge. Hence, the research on teacher education has been scattered with documents focused on the generation of knowledge bases that list what teachers should know and be able to do know in order to enter the profession (see Wittrock, 1986, *Handbook of Research on Teaching, third edition* and Richardson, 2001, *Handbook of Research on Teaching, fourth edition* for more information).

But what is this knowledge that teachers should possess? Critical among the considerations is whether or not to accept the conventional representation of knowledge or to decenter what has been seen as "the" view of knowledge to offer alternative representations. In reference to the previous section, another way to explore this is by asking the question – should knowledge be represented in a formal fashion with a traditional scientific structure or can less restrictive representations suffice? Fenstermacher (1994, 1997), Richardson (1994, 2000), and Loughran (1999, 2000) among others have recognized the need for careful research and thoughtful habits of mind when engaged in this work. In separate but similar calls, these scholars identified two issues – a clearer understanding about the definitions of knowledge and a better understanding of how that knowledge is expressed to the larger academic community – that need to be addressed. Before we discuss points about presenting this work to a larger community, (which we will do in future sections), we need to consider the definitions of knowledge in teaching.

Knowledge in Teaching

The texture of the land shifts and turns. Articulately the rise and fall of the terrain can be troublesome. How do you represent these ideas? Previously, scholars have drawn distinctions between those who produce knowledge through research (formal knowledge) and those who use knowledge (practical knowledge) (Fenstermacher, 1994; Huberman, 1991, 1996, for example). This argument elaborates on the link between thought and action, contrasting theoretical and practical arguments.

However, these views of teachers' knowledge have been reductionist (Carter, 1993) and adversarial setting up a negative power differential between the ones who produce knowledge and the ones who use knowledge (Stenhouse, 1975; Whitehead, 1993). Broadening this view, Clandinin and Connelly (1995, 2000), for example, define teacher knowledge as embedded in story and influenced by personal backgrounds and learning. Lytle and Cochran-Smith (1991 and in this volume) present teachers' knowledge as a triumvirate of knowledge in-, of-, and about- practice that also comes from backgrounds as well as learnings. Knowledge for practice might be characterized as formal knowledge.

These researchers and others (for example, Briscoe, 1992; Lather, 1986; Richardson, 1997; von Glasersfeld, 1989) see teachers' knowledge as a fluid, social construction that is more extensive than can be articulated (Polanyi, 1967; Korthagen & Kessels, 1999). Some (like, Carter, 1995; Carter & Doyle, 1987, for example) suggest that knowledge is event-structured and task-specific, and describe it as situated in practice (Leinhardt, 1988, for example). So knowledge may be seen as historically embedded, culturally imbued construct that is personal yet socially constructed and can be expressed in actions. Carter (1992) sees teachers' knowledge as elusive because teachers may not have the language to articulate it. Perhaps in response to the power relation, Duckworth (1991) points out that teachers seem to lack a seriousness about their knowledge and

often do not critically examine it. Teacher and teacher educator research provide ways to examine what teachers know and how they express their ideas (Elliot, 1989; Loughran, 1999).

Sanders and McCutheon (1986) find that practical theories offer reasons for actions and ways to guide those actions. This reasoning interprets, helps understand, and justifies teaching situations. Of course, this raises the uncertainty principle in teaching. Linearity and surety in teaching are elusive. Mapping teacher knowledge like mapping topography can be tricky.

Dewey, Experience, and Identity

Following Dewey (1916), Bullough 1997 suggests that experience bring significance to theory. Fitting with the ideas of Clandinin & Connelly (1996), studying education is studying experience is studying life. Importantly, to succeed in the study of experience, teachers/teacher educators must bring critical reflection to the task so they can act, "with intent; they are empowered to draw from the center of their own knowing and act as critics and creators of their world rather than solely respondents to it, or worse, victims of it" (Richert, 1992, p. 190). To support this process, teachers, in their reflective process, make "conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality" (MacKinnon & Erickson, 1992, p. 196).

Teaching requires more than simply teaching subject matter. The image of that and what is needed for the classroom shifts as the teacher sees how the student develops. Dewey (1916, 1933) talks about creating environment for students in the classroom. Designing an environment suggest that the teacher moving the student from point A to point B is no longer adequate. The teacher may have a learning goal, but her focus on students may change over time.

Experience

Bullough (1997) claims that theories come into the experience of practice as they are applied. As experience expands, "knowledge in action gives the authority of experience" (Munby & Russell, 1994, p. 92). This:

> authority of experience gets transformed into the authority that says, I know because I have been there, and so you should listen. The authority of experience simply does not transfer because it resides in having the experience. This coincides with Schön's view that knowledge-in-action cannot be transformed into propositions. It is for this reason that Schön (1984) cautions those who wish to acquire professional competence that there is something they must know, something their teachers cannot tell them what it is. (Munby & Russell, 1994, p. 93)

As teachers reflect upon and publicly:

> "'name' their experience, they learn about what they know and what they believe. They also learn what they do not know. Such knowledge empowers

> the individual by providing a course for action that is generated from within rather than imposed from without. (Richert, 1992, p. 190)

Maxwell (1999) situates the knowledge, practical knowledge, in teachers' personal and professional experiences as did Elbaz (1983) and Connelly and Clandinin (1985) before her. Munby and Russell (1994) find that emphasizing, "the contact between school knowledge and action knowledge (Barnes, 1976) marks how the experience of school can conceal the differences between the authority of reason and other forms of authority" (p. 92). Once "you come to know the surface of things ... you ... seek what is underneath" but often "the surface of things" seems infinitely deep (Mason, 2002, p. 29).With the acceptance of authority in experience, "then ... research can be better understood as a form of ... research that brings with it different research demands and dilemmas from traditional research" (Loughran, Mitchell, & Mitchell, 2002, p. 16). Recognizing the influence of experience on the development of knowledge empowers both the student and the teacher (educator).

Identity

A teacher's education often begins "by exploring the teaching self" (Bullough, 1997, p. 19). With "self you rehearse possible course of action" (Markus & Nurius, 1987, p. 161). Multiple, "often conflicting, identities ..." can be "under construction" as the teacher identity develops (Danielewicz, 2001, pp. 3–4). As they continue developing, the "self ... depends on a dialectic of identification: self-definition and definition by others, both of which are necessary (Danielewicz, 2001, p. 42). This constant construction, deconstruction, and repair of boundaries around the constitution of the self is fraught with emotions" as well as "new ideas". (Zembylas, 2003, p. 108). This continuing development "challenges the assumption that there is a singular "teacher-self' or an essential 'teacher identity' hidden beneath the surface of teachers' experiences" (Zembylas, 2003, p. 108). This is where experiential and theoretical understandings and notions about reflection and the authority given to self and others come into the dialectic.

Identity is developed in relation; teaching is developed in relation. The teacher is the more capable Other. The more capable Other assists the learner in the learning process (Vygotsky, 1978; Tharp & Gallimore, 1988). Teacher educators in the role of the Other, often try to teach their students to be the Other. In turn (hopefully) they will move students forward in their knowing, being, acting, and doing. As Schön (1983) suggested, a move beyond technical rationality is required (see Kelchtermans and Hamilton, this volume for elaboration on this topic). A prescription for this process is less helpful than understanding its development. Understanding the importance of experiences and the development of teacher identify impacts understanding of knowledge, types of knowledge, and the use of that knowledge.

Types of Knowledge

Shulman (1986,1987), "has posited that the knowledge related to teaching exists in different forms" (Graber, 2001, p. 495) with a variety of labels. Of the types

of teacher knowledge identified by Shulman, the one that inspired the most attention was pedagogical content knowledge (Seixas, 2001, p. 546). While general pedagogical knowledge represents what teachers understand about the principles and strategies associated with classrooms (Graber, 2001, p. 496). Pedagogical content knowledge (Grossman's work, 1990, for example) focuses on the special pedagogy necessary to teach specific content. Shulman and colleagues recognize, "a special kind of teacher knowledge that link … content and pedagogy" (Ball, Lubienski, & Mewborn, 2001, p. 448). There is also personal practical knowledge (Clandinin, 1986) is based on the past and present experience in the life of teachers and can manifest personal, emotional, professional, and moral knowledge (Maxwell, 1999). Intuitive knowledge is another type of knowledge. Maxwell (1999) states that while "intuitive knowledge is only one piece of the puzzle being used … it is the very piece that is unusually shaped and touches the most number of pieces in the puzzle" (p. 91).

It would seem that Shulman, with the notion of pedagogical content knowledge, claims that some knowledge is 'better' than others are. Once this is claimed there is some expectation about achievement and performance.

Teaching Knowledge

Korthagen suggests that teaching involved more than skills mastery. Rather, it entails a way of relating to self and others (Korthagen, 2001, p. 264). Teachers do need to, "be very knowledge about the subject or subjects they teach" (Porter, Youngs, & Odden, 2001, p. 265). This knowledge depends on content, age level, development, and more. Sometimes communities of teachers/teacher educators share "sets of important questions and varieties of methods for approaching programs (Leinhardt, 2001, p. 336). Is this knowledge about teaching? Ball, Lubienski, & Mewborn (2001) suggest there is a distance between studies of teacher knowledge and of teaching itself. Although teaching may depend on knowledge, they state that "knowledge is not synonymous with teaching" (p. 450). Further, they find that distinguishing "studies of knowledge are or are not studies of knowing about teaching" (p. 450) is important.

Teacher Knowledge

Can students of teaching experience a depth of knowledge? Richardson (2002) finds that to, "be of use in action, a depth of understanding is required that becomes somewhat internalized such that in can be used in teacher planning, action, student assessment, and reflection" (p. 6). Huber and Whelan (1999) see teachers, as the owners and creators of knowledge. And this knowledge is both formed and expressed in context (Connelly & Clandinin, 1999, p. 2). Now, the "conceptual framework that characterizes teaching as a complex cognitive skill determined in part by the nature of a teacher's knowledge system to explain patterns in participants' planning, teaching and post-lesson reflections" (Borko, Bellamy, & Sanders, 1992, p. 49). Barnes (1992) finds that the identification of teachers' knowledge can be "potentially misleading, unless 'knowledge' is seen

as value-laden and dynamic" (Barnes, 1992, p. 16). In fact, a view of knowledge that is static does not expressly define it. Korthagen (2001) argues that we need to shift our view from that "scientific understanding (episteme) … [to] … practical wisdom (phronesis)" (p. 24). In part, this knowledge includes the "common dilemmas teachers face in classroom life" (Carter, 1995, p. 110). In the past, teachers' understandings and knowledge have been viewed in a less than a positive way as simply reactive to "externally imposed knowledge" (Clandinin, 1986, p. 4).

Clearly, these definitions are perplexing. On the one hand, we have calls for very specific strategies for and approaches to teacher knowledge. On the other hand, we have rather vague descriptors that seem to shy away from definition. Often the request for specifics comes from educational researchers, outside the realm of teachers. How do we come to terms with the tensions created here? How do you figure out how to best define teacher knowledge? If we trouble and push the issue, we come again to wonder, "whose knowledge is this? Who will actually be well prepared to teach? This terrain seems to have some of the swampy areas that are muddy and can mire you down. Trying to read the map almost requires that you know the landscape before it makes sense.

"What do we have here?" asks the cartographer. Now I can see that different views of knowledge mean different definitions of knowledge in teaching," she claims and realizes that the weather map is not enough. As the atmosphere interacts with the land, the land interacts with the waters. She realizes that she must now look at an oceanic map.

Fourth Map – What Counts for Professional Knowledge for Teaching?

"I need to understand how the waters mingle with the land," our cartographer speculates. There are many ways to map the waters of this (educational) world like looking at the geographic, the geologic, or the nautical spaces (Makower, 1990). However, for the purpose of this section, we offer a simple and general look at the nature of the waters and the continental margins. This," our cartographer thinks, "will provide a more vivid portrayal of this world." In this section, we look at some of the features of teachers/teacher educators' professional knowledge and the way that such knowledge might impact on teachers/teacher educators' practice. Clear-cut distinctions between knowledge are no longer possible because teachers/teacher educators' professional knowledge (whether it is preservice or inservice teachers) is more complex than originally thought.

Defining Professional Knowledge

Waters can be turbulent, swirling, in this case, with passion and emotion. Notions of knowledge and professional knowledge can sometimes blend and sometimes crash into each other. Mapping out these possibilities can require concentration. As mentioned in the last section, in the 1980's Shulman proposed categorical representation of teacher knowledge. He (1987) claimed that teachers needed

strong "pedagogical content knowledge" (p. 8) to be the best possible teachers. Around the same time other researchers speculated about teachers' knowledge bases and the professional knowledge of teachers (Grossman, 1990; Wilson, Shulman & Richert, 1987, for example). For him, teachers look uniquely at practice. Shulman and colleagues eventually expanded these ideas to include the work of teacher educators and other university instructors, calling it the scholarship of teaching. We will return to this issue later in this chapter.

At the same time, in the United States and globally, tools to define and measure teachers' knowledge along with strategies emerged to undertake standardization. This work did not explore uncertainties. Rather, much of this work took very conventional approaches. That is, researchers studied teachers' behaviors and beliefs seeking to reduce them to a standard. In fact, many researchers and policy makers essentialized teaching.

Early in the 1990's, an alternative to this conventional approach emerged. From this perspective, researchers pushed to find ways to examine what teachers knew. Early and prominent among these researchers were Clandinin and Connelly and Cochran-Smith and Lytle. Each set of researchers, while approaching teacher knowledge in different ways, attempted to unravel the ways in which teachers develop their professional knowledge. Researchers engaged in the self-study of teaching practices also brought their views to the static water.

Complicating the Definitions

As we saw in last section, the knowledge related to teaching has many definitions. Further, we read that there are varieties of different approaches to understanding this knowledge. The waters can be wide, deep, and unsettling. They can also be still and enigmatic. Certainly, charting the currents and the flow requires a calm and careful eye.

Politics

Earlier in the chapter I mentioned sociocultural perspectives that many researchers now bring to their understandings of their world and their research. What I only alluded to was the political elements of these understandings. Realistically, power and politics impinge on the questions we have previously mapped – whose knowledge is it? And so on. Postmodern/poststructural researchers take a politicized vantage – questioning knowledge ownership – so do the modernist researchers. Some of these researchers are more forthcoming than others about the political nature of their work. Sometimes issues are discounted or empowered because of the author, sometimes because of the institution, sometimes because of the nature of the relations between these issues. When looking at professional knowledge these relations must be addressed.

There are those who look more broadly at their educational settings and there are others who find that the more focused, personal view is the ways to understand the politics of the situation. For example, "Harding (1987), Orner (1992), and others suggest … looking to ourselves to explore the complexities of our

social existence. Collins (1991) argues that understanding our work is at the heart of understanding ourselves and our hidden knowledge" (Hinchman & Lalik, 2000, p. 183). Because it is not uncommon, according to Loughran, Mitchell, & Mitchell (2002), "for teacher knowledge to be dismissed … [or] … compared with more traditional forms of research knowledge" (p. 15), teachers/teacher educators' classrooms become sites for studying the interactions of the private and public worlds of the educational process. Who owns the knowledge, who shares the knowledge, and who presents the knowledge are questions with political elements and require consideration.

Ethics

Hansen (2001, p. 852) asserts that according, "to the literature … teaching is inherently a moral endeavor." As such, teachers/teacher educators model behavior, ideas, and values (Loughran, 1996, for example) for their students. This means that whether or not they are conscious of their modeling, it happens. Whether they are conscious or not of the politics of a situations, they happen. Hansen continues that the practical wisdom perspective, "is an orientation more in keeping with the contingent nature of pedagogical work and with the always evolving more characteristics of both teachers and students" (2001, p. 849). This recognizes the power the teachers and their influences in the classroom. Further, understanding "teaching as a moral activity can give value and direction to teachers' technical knowledge" (Hansen, 2001, p. 849). Like Goodlad and colleagues (1993) suggest, the moral dimensions of teaching are important currents to the seas of educational research. The integrity and trustworthiness teachers bring to their classrooms and ways of being affect their students.

Caring

Hamilton and Pinnegar (2000) suggest that care, trustworthiness and integrity are necessary aspects of professional knowledge. Noddings (1984, 2001, for example) asserts that caring is a way of being in relation to self and others, not a specific set of behaviors (Danielewicz, 2001, p. 17). This care involves elements of kindness, but more importantly includes commitment to learning and success. Along with caring, Hamilton and Pinnegar assert that trustworthiness and integrity in the work of teachers and teacher educators are critical to helping their students and their students' students realize their potentials. How to do that? Like other issues already discussed, caring, trustworthiness, and integrity elude categorization and limitations. Conscious exploration of critical questions may be the appropriate current here. Understanding that teachers' professional knowledge has a complexity and sophistication may guide them through the choppy depths.

Judgments

Goodlad and colleagues (1993) have also explored the professional knowledge base of teachers. He suggests that the public pays teachers for their judgments

rather than for the technical elements of their work. While technical skills and practice inform judgment, that judgment is also drawn from the sociocultural, moral and political elements of the person. The quality of the reasoning and the quality of the action influence the teacher/teacher educator's judgment in the setting and also influence peoples' judgments about teacher success. In addition, the quality of teachers/teacher educators' judgment is always in relation to students to colleagues, to others. Success as a teacher requires both the student and teacher to buy into the learning process when the teacher/teacher educator prepares lessons or class, they make judgments about content and more. Teaching, "involves informed interpretations of and responses to students' orientations to knowledge" (Daniels, 2001, p. 103). They draw from their experience, have knowledge of content, sense of students, and from the relation with context, students etc., make judgments about how to proceed. To do that they must have knowledge about and understanding of their students.

We develop our own judgments and the judgment of our students, but what should count in that judgment? What is the range that teachers/teacher educators must consider about themselves, teaching, and their students? Relevant here is the Fenstermacher (1986) notion of studenting. He suggests that beyond the teacher's part in the learning process, the student must also take responsibility for it. This relation is critical to the development of teacher and student. Teachers (from Dewey's (1933) perspective) bring openmindedness, whole-heartedness and responsibility to teaching and to the relation between teacher and student and students bring those same notions to their role as student (see Loughran, 1996 for more detail on modeling and issues regarding Dewey.)

This, of course, suggests an uncertainty about teaching. Professional knowledge does not seem to be simply a still lagoon of lists or attitudes or strategies. Rather, it seems to be an ocean of tensions, turns, and contradictions. Consequently, making teachers or teacher educators fit a standard in particular ways may be difficult. The wisdom of practice is an ineffable thing that resists countability and reification.

Troubles

It seems important to state that there is no list in this chapter of the specifics of professional knowledge and acknowledge that this seems to be a future task because of the various available viewpoints. However, it is also important to acknowledge that there are skills and attitudes that teachers must bring to teaching, like openmindedness, wholeheartedness, responsibility, and reflection. More than that can be found in other texts.

Additionally, addressing issues like trustworthiness and integrity can generate undercurrents in the seas of educational research. As Hamilton and Pinnegar (2000) speculate, there is a tension in the relations between the teacher/teacher educator and the students' perceptions of her/him. The students (or our colleagues) decide trustworthiness. Teachers/teacher educators can act with integrity, but do they see that integrity? That, according to Hamilton and Pinnegar, is what students (or colleagues) must decide for themselves. Moreover, the issues

of trustworthiness and integrity come back to the public nature of the work. Are colleagues willing to accept that teachers/teacher educators have the knowledge they claim to have?

Pondering this, our cartographer declares "this is not enough!" Now I need to consider how, metaphorically speaking, the people fit into this picture. She says, "I have seen that if I accept the possibility of postmodern/poststructural views of the world, I define knowledge as multi-leveled and textured. And if I accept that, I define teacher knowledge as somewhat elusive and particular. And if I accept that, I define professional knowledge as involving more than skills. Accepting all of that, issues of politics, ethics, care and judgment contribute to the professional knowledge in teaching. However, where does professional knowledge base fit? "How might I consider that?" she asks.

Fifth Map – What Counts as a Professional Knowledge Base for Teaching?

At this point, our cartographer realizes that she needs to see a people map. Census maps generally shows the distribution of population across areas. These maps can illustrate the interests of an area, or the density of population, or even the voting registration of citizens. To answer the question of what counts as a professional knowledge base for teaching, she simply will explore interest.

The purpose of this section is to examine some of the features of teachers' professional knowledge base and the ways that such knowledge impacts on teachers/teacher educators' practice. Internationally, there has been an ongoing focus on teacher education reform with an emphasis on teachers' knowledge and teachers' pedagogy and the ways in which these come together to form a knowledge base. An exploration of the (various) knowledge bases is important, particularly in light of the ways in which these knowledge bases impact on teachers/teacher educators' approaches to, and practices of, teaching (see Hamilton & Pinnegar, 2000, for more information.)

Currently, professional knowledge is standardized in a way where knowledge is seen as a static thing to be attained in a finite way. While we promote lifelong learning, teachers are expected to learn the skills for teaching quickly and with some level of competency. Although some degree of standardization may be appropriate, expecting sameness among teachers, students or strategies seems both unrealistic and unreasonable. Maybe this is possible in the modernist paradigm, but from other standpoints standardization is oppressive and power draining.

Professional Knowledge Base

Professional knowledge is, "composed of a wide variety of components and influenced by a wide variety of people, places, and things (Clandinin & Connelly, 1995, p. 4). Expanding our view, we see that the professional knowledge bases of teaching are as broad and diverse (Christensen, 1996, p. 38) as the peoples

our cartographer examines. For Christensen (1996), "many programs have many different knowledge research bases upon which they depend. There is no one best base, but some are more supportable than others are" (p. 38). Wisdom, "language, critiques and theoretical frameworks of school-based teachers are as essential to a knowledge base for teaching as are those of university based teacher educators and researchers" (Cochran-Smith, 1994, p. 151). Building on Schön's work (1983) Munby (1987) looks at teachers' professional knowledge suggesting that this refers to "the non-propositional forms of knowledge that are assumed to be of importance to professional action" (p. 1). If we broaden that to imagine a base, it alters the understanding that a base might simply include a set, or sets, of skills.

Clandinin & Connelly (1996) propose that, "professional knowledge context shapes effective teaching, what teachers know, what knowledge is seen as essential for teaching and who is warranted to produce knowledge about teaching" (p. 24). Further, they position professional knowledge at the "interface of theory and practice in teachers' lives" (p. 24) and a base of such knowledge might look different from traditional knowledge bases. This again seems to underscore the uncertainty of teaching.

If as Richert (1992) asserts when "thoughtful teachers do their work – all the while thinking about what they are doing and what they have done – they create knowledge about their practice which they then draw upon (and revise) as they continue to teach" (p. 189), how do we define a knowledge base? I would suggest (with the help of Pinnegar, 2003) that rather than defining knowledge base as the lowest common denominator of ideas, we consider viewing this base as an anchor, a point where the social, moral, political, personal, and emotional fit together. Establishing boundaries for knowledge seems confining from postmodern/poststructural views. Moreover, it does not seem to fit with the uncertainties of teaching to which we have previously referred in earlier sections of this chapter. Thinking of stories and information that serve as a touchstone may support novice teachers in the critically reflective perspective they need to bring forth to contribute to their teaching.

There are important issues to consider here beyond the skills often addressed – social justice, privilege, and emotion. Are these really elements of a knowledge base? Who decides? How do we decide that someone has contributed to the knowledge base?

Social Justice

Recognizing social justice as a foundation for a knowledge base seems critical. Access to knowledge varies by race, class, gender, age, and more (Dilworth & Brown, 2001). This suggests that some people may receive more, less, or, perhaps, no information to develop their knowledge. As Cochran-Smith (1995 for example, among many others) has indicated this imbalance in how students learn, teachers teach, and, ultimately, how people within our global society interact privileges some people more than others. Evidently, some people, because of their socioeconomic class or the color of their skin (or other reasons), have more privilege in

society than others (Pewewardy, 2003). Since, at least in the United States, we are affected by institutional racism, we need to understand that the ways we (whoever we are) make meaning of the world influences the ways that we see beyond ourselves. As mentioned earlier in the text, Foucault's (among others) power-knowledge relation must be applied here. Sometimes this privilege can be ignored or hidden from view but it is always present in its [often explicit] absence. While there are some programs with good intentions, there are few programs that claim success addressing issues of social justice and diversity in a teacher education setting (Ladson-Billings, 2001). Ellsworth (1997) claims that "most educational literature and practices aimed at ending racism seem preoccupied with identifying, inciting, and proliferating discrete turning points in students' attitudes, understandings, and behaviors towards race and racism" (p. 155), but this does not necessarily prepare socially just teachers. Supporting this, Danielewicz (2001) asserts:

> Friere's liberatory pedagogy demonstrates how the whole educational enterprise can be opened out to include the voices and perspectives of all participants, regardless of their status. Inclusion of all voices and perspectives would expose the submerged assumptions about language, knowledge, and power that drive the traditional curriculum. (p. 147)

In postmodern/poststructural perspectives there is an implicit understanding, "that 'all' collapses the differences and diversities of students to a totalising entity that covers everyone" (Zembylas, 2000, p. 178). As is fitting with a quest for identity, knowledge and moral stance, for a socially just world, a professional knowledge base needs to be expansive rather than rigid. That is, expectations need fluidity instead of rigidity. Brown (this volume) and Schulte (this volume) offer excellent insights into these issues along with Griffiths, Bass, Johnston, and Perselli, (this volume). Surveying her maps, our cartographer sees a variety of interests but wonders how people decide on those interests.

Emotions

Another influence on the knowledge base and peoples' understanding of knowledge is emotion. Often avoided as a topic because it skirts the margins of rationality, emotion affects they ways we are in the classroom and in our lives. In an organic society (Reason, 1994), we see how emotion imposes on the understandings that people bring to their experiences. Zembylas (2002b) finds that in:

> education, the emotions associated with learning and teaching are by no means new terrain for researchers and educators, but there seems to be a renewed interest especially in the emotions of teaching, the emotional politics of teacher development and educational reform, and their implications for teacher education. (p. 187)

Controversies about culture and teaching are "not simply 'academic' questions,

but rather highlight and touch on issues that are highly personal, emotionally charged, and at times appear to be rather divided (Liston & Zeichner, 1996, p. xvii). Flynn (1995) suggests that the, "roles of emotions ... lies in their capacity as a motivating force to support peoples' relationships with the world around them" (p. 367). He suggests a relationship among body, feeling, emotions, and concerns. Bondi adds that studying emotion addresses questions of positionality (Bondi, 2002) and influences meaning making and understanding that creates knowledge (Bondi, 2002).

The "emotional geographies of teaching" (Hargreaves, 2000) illustrate ways to the delineate the lived experience of self and offer "powerful testimony of the importance of attending to the much neglected" issue of emotion (Day & Leitch, 2001, p. 403) in understanding the knowledge base of teaching (for elaboration on this topic, see Kelchtermans & Hamilton, this volume).

Early self-study work looks at issues of emotion. Lighthall & Lighthall (1996, 1998), consider the complexity of emotions set in narrative from a cross-cultural perspective and ask teachers to tell "self-involving" stories that explore their emotional understandings. Others mention emotions and "inner" feelings (Smith, 1996; Manke & Allender, 1998). As described, emotions involve not just feelings, but the body, the soul, and more (Lighthall & Lighthall, 1996).

How might emotions fit into the question of what counts as knowledge base? For some researchers, "emotions can be sites of social/political resistance and transformation of oppressions," and examine "contradictions within discourses of emotions – what can be called 'counterbalancing discourses' or 'disrupting discourses.' These discourses can become sites of power and resistance" (Zembylas, 2001, p. 2). Teacher/teacher educators' identities are mutable, lived, experienced, and expressed in the acts of teaching, sometimes through emotion. Further, because emotions are potentially public and visible in their actions, their words, and their bodies (Zembylas, 2003), understanding the impact of them on teaching and the professional knowledge base is important.

The sense of vulnerability that teachers experience in their work fits here. Kelchtermans (1996) defines vulnerability as "one way in which teachers experience their interactions with other actors in the school and the community. It ... encompasses not only emotions (feelings), but also cognitive processes (perception, interpretation)" (p. 307). When teaching, the living contradictions that emerge in the classroom to unmask vulnerabilities. For example, Parker reveals her own vulnerability when looking at her teaching experience (Lomax, Evans, & Parker, 1998). The contradictions seen or the tensions felt in the classroom affect how teaching happens there. They also affect the sense of knowing developed there. Emotions seem central to the learning-to-teach process (Zembylas & Barker, 2002). These uncertainties seem to contest the notion of providing a standardized knowledge base that fits most experiences.

Wonderings

The distribution revealed by the map survey suggests that the areas of social justice and emotions have a low density. That is, the influences of social justice

and emotions on the lives and the knowledge of teachers/teacher educators seem less significant. However, the importance of these issues cannot be overestimated. Casting them into the margins undermines the preparation of novice teachers for the teaching world.

Addressing issues of social justice and emotion can be less concrete then a formula for planning or a teaching strategy. This would be a problem for those people and institutions that seek comfort in prescriptions for teaching. The distinctions among the traditional and less traditional views of viewing teaching and its professional knowledge bases seem clear-cut and sharp. How to accommodate these variations seem less so.

Our cartographer looks at her map. I can see," she remarks, "that there are many interests and broad range of possibilities." "Now I notice," she declares, "that there issues beyond skills." From postmodern/poststructuralist views, interrogating justice, privilege, and emotion as well as contesting related questions and concerns must be a part of the process of making sense of the knowledge bases that count for teaching.

Sixth Map – What is the Relationship Between Professional Knowledge Base for Teaching and Teacher Education?

At this point, our cartographer also sees that she needs more information. While these other maps have been important, she still wants to develop more insight. Perhaps understanding the boundaries and margins will contribute to a deeper understanding" she wonders. A political map outlines the boundaries of the world, separating nations and states and she decides to undertake that task. In this section we will very briefly explore along the boundaries of professional knowledge and teacher education.

With relative ease for the most part, our cartographer can see the initial boundaries among territories of professional knowledge bases and teaching and teacher education. We have identified them already as modernism, postmodernism, and poststructuralism. What is key is how we address the margins and unnamed borders. These margins and borders both separate and blend issues. Generally teachers and teacher educators use the professional knowledge base in thinking about teaching and/or ways to teach teachers. This may be an explicit or implicit activity. Significantly, the issue is how teachers/teacher educators engage with the professional knowledge base. From the perspectives of postmodernism/poststructuralism this professional knowledge base serves as a guidepost or opportunity rather than a list of fixed points of information. Teacher educators from postmodern/poststructural perspectives, for example, might encourage their students to be more open to the multiple realities around them.

Teacher educators have a similar, yet different experience from teachers in the public schools. Teachers attempt to empower their students, teacher educators attempt to empower their students to empower their students (Pinnegar, 2003). From this perspective, teacher educators are the more capable Others preparing their students to be more capable Others for their students in the public school

settings (see Kelchtermans & Hamilton, this volume, for elaboration on this topic). Teaching and learning in relation is a powerful perspective to consider when exploring knowledge and the knowledge bases for teaching. Korthagen and Lunenberg (this volume) address these issues in relation to teacher education reform.

How might teacher educators from postmodern/poststructural perspectives present these issues to their students? Heaton and Lampert (1993) suggest narrowing, "the distance between teaching and teacher education" to "examine the problems of an unfamiliar kind of teaching practice in the context of daily lessons with a class of diverse learners" (p. 44). One way might be through critical reflection and the preliminaries of the self-study of teaching practices.

Caveats

Who establishes the professional knowledge base for teaching? In teacher education those people that might contribute to the development of the professional knowledge base include teacher educators, teachers, but more likely people less affiliated with classrooms and more affiliated with research. Unfortunately, the lack of respect for the knowledge and judgment of teacher educators can undermine their experiences as researchers (Hinchman & Lalik, 2000). Teachers/teacher educators' practice and the knowledge tend tacitly to influence that practice. Hence, attempts to articulate those links have often been difficult. Further, teachers have a difficult time because in school teaching there is little expectation for such articulation as the demands of time, curriculum and student achievement tend to create a focus more on doing teaching rather than explicating the associated pedagogical reasoning.

Self-study scholarship in teaching may well be highlighted and made accessible to others by better understanding the underlying knowledge/ideas/theories that influence teachers' pedagogical reasoning so that what is often viewed as exemplary practice is able to be discussed and examined in ways that go beyond the practice itself. Self-study scholarship in teacher education highlights similar information in different settings. Florio-Ruane (2002) promotes expansion beyond traditional approaches to study the complexities of practice. This is an important step in coming to better understand what really comprises teachers/teacher educators' professional knowledge and in beginning to make that knowledge available to others.

Seventh Map – What Does Self-Study Contribute to Teacher Education in the Creation of a Professional Knowledge Base?

Our cartographer has now collected maps that focus on space, weather, water, land, people, and politics, but that still is not enough. To understand this educational research world, she finds that she must consider its inner structure. Just as the examination of the earth's interior, looking at its geologic history and core structure in cut-away form, can be a part of a cartographic collection,

she sees she must question the ways that self-study might contribute to the professional knowledge base and its usage in teaching and teacher education. She investigates a few critical aspects of self-study, related issues for distinguishing self-study in an academic setting, and contributions of self-study to the professional knowledge base.

Self-Study

Hamilton and Pinnegar (1998) define self-study as, "the study of one's self, one's actions, one's ideas, as well as the 'not self'. It is autobiographical, historical, cultural, and political … it draws on one's life, but it is more than that. Self-study also involves a thoughtful look at texts read, experiences had, people known and ideas considered" (p. 236). Cited by Mason (2002) as an element of discipline of noticing, "laying strands of your own experience alongside each other, comparing them, testing whether they do indeed sharpen sensitivities, conform with each other, and inform practice" (p. 90) are also elements of self-study. Autobiography and the development of voice are additional aspects of self-study (Goodson & Walker, 1991). Dinkelman (2003) states that by, "self-study, I mean intentional and systematic inquiry into one's own practice" (p. 8) that "yields knowledge about practice" (p. 9). In self-study work, while the "self" is important, the contextual aspects of the work and the theoretical components remain in the foreground as the researchers come to focus on knowledge generation. Contributions to the professional knowledge base of teaching as well as generating understanding of the world are the focus for self-study scholars.

One critique of self-study comes from the public's misunderstanding of this focus. For example, Louie, Drevdahl, Purdy, and Stackman (2003) suggest that many, "self-studies … fail to capitalize on the potential of their inquiries for creating transferable knowledge that is of benefit to colleagues and other educators" (p. 154). This occurs partly because of the risky nature of self-study research (Pinnegar & Russell, 1995; Bullough, 1997). Why? Rather than maintain distance this work, "reveals participants as both educators and human beings through documentation of successes as well as shortcomings" (p. 155). However, when scholars do, "engage in self-study to advance theoretical knowledge, they connect their work with existing knowledge and theory in the field, engaging in 'praxis'. … that is at the core of knowledge creation" (Louie *et al*., 2003, p. 160).

Along with risky, self-study has sometimes been seen as self-praising rather than critical. Feldman (2003) warns that, "odes to ourselves are of little value to those who we want to help … we need to do more than represent our findings; we must demonstrate how we constructed the representation" (p. 27). Another warning is that critical reflection, "will reveal no more than what is already known. … Because reflection entails circular ways of thinking, research about reflection is problematic and can be dangerous if it assumes a privileged status in teacher education" (Fendler, 2003, p. 21). As many others have warned self-study scholars, Mason (2002) exhorts that studying, "oneself can become solipsistic and even narcissistic, if gaze is always inward. If gaze is only sometimes

inward, studying oneself can provide the basis for communicating with and developing sensitivity to others. If gaze is always outward, then the most valuable resource one has as a researcher, namely oneself as instrument, is denied" (p. 174). Richardson (2002) asks, "does teacher research and self-study warrant different methods and procedures than research that leads to formal knowledge?" (p. 15). She answers that self-study work "says important and useful things" about particular contexts and participants, but, "more work is required if it is to add to the field's understandings of teaching practice" (p. 20).

From a methodological standpoint (addressed more fully in Section Three of this volume) static knowledge, that is, knowledge presented as "the" truth, is easier to undertake. The distance that comes with work seeking traditional scientific warrant leaves the researcher less vulnerable and less available to personal process. Self-study research, on the other hand, represents a trend away from modernism and its assumptions about legitimate knowledge and knowledge production toward broadening what counts as research (Bullough & Pinnegar, 2001, p. 13) brings personal biography and history together with context and social history (Bullough & Pinnegar, 2001). This is not to say that self-study is all about "self." Rather, it is recognition of the contribution that "self" makes and the role "self" takes in the multi-layered world. The self is a part of the study, but the focus is on the nexus of self, practice, and context (Bullough & Pinnegar, 2001). In fact, self-study attempts to diminish the gap between theory and practice (Bullough, 1997). In some ways we could assert that a relation between self-study and teacher education could balance teachers/teacher educators' understanding of professional knowledge bases. This knowledge has to be useful to the teachers/teacher educators and fit with or contest their world.

Hamilton and Pinnegar (1998) conclude that self-study goes beyond the boundaries of qualitative research: "More than a qualitative approach to a situation, self-study scholars attempt to embrace … uncertainty and reject calls for validity and reliability as they are traditionally known. The multilayered, critically-imbued, reality-laden world is the text of the self-study scholars …" (p. 235). And, "one of the research by-products of self-study is the way in which it pushes the boundaries of what counts as research" (p. 240). As teachers and teacher educators come to know something, they play with words and concepts, appropriate them, and make them their own. In turn, they hopefully take responsibility for that process and the ways that they transform ideas. Self-study helps with balance among the various research approaches.

While the self-study of teachers/teacher educators can adequately support the questions studied with more breadth and depth to the work, the self-studies of student teachers can often be shallow because the students have few contexts with few experiences to develop their personal theories that are, in turn, relate to theoretical frames (see LaBoskey, this volume, for elaboration on this topic). Critical is the acquisition of a "sense of self-understanding" by the student teacher "as a basis for developing their own unique potential" (Korthagen, 2001, p. 263). This sense of self-understanding helps the student teacher prepare for a successful teaching career and helps them frame the professional knowledge they

learned. Although undertaking a broad self-study may not be possible at this early point in their learning-to-teach process, learning the preliminaries to this work in their university classes can be helpful when they begin teaching.

There are numerous self-studies in Castle Conference Proceedings (Richards, & Russell, 1996; Cole, & Finley, 1998; Loughran & Russell, 2000; Kosnik, Freese, & Samaras, 2002), in texts (Allender, 2001; Hamilton, 1998; Loughran & Russell, 2000; for example), in journals (Arizona Group, 1994, 1996; Cole, Elijah, & Knowles, 1998; Finley & Knowles, 1995; Knowles & Cole, 1994; Louie, Drevdahl, Purdy, & Stackman, 2003; Phillips, 2002; Pinnegar & Russell, 1995, Trumbull, 1990, for example), and in conference papers (Guilfoyle, 1991; Knowles & Cole, 1991; Northfield & Loughran, 1996; Phillips, 2001; Pinnegar, 1991, 1993; Placier, 1991, for example).

There are also studies, not identified as self-studies that fit those criteria. Heaton and Lampert (1993) for example, explore practice and their collaboration while teaching in elementary school. In her work, Dillard (2002) looks at community and authenticity in teacher education. She asserts that, "Freire (1970) and hooks (1989) suggest that critical consciousness and broader perspectives are developed by coming face to face with contradictions in life that require a reexamination of values, cultural understandings and decision making" (p. 384) and advocates a personal, critical approach for research. Hinchman and Lalik (2000) examine their discourse in order to explore their practice. Whether labeled self-study or something else, the work of examining practice within the context of the classroom and the teachers/teacher educators' experiences, is critical to understanding teaching practice.

Perhaps the most distinctive element of self-study is the way it contests the traditional approach to research. The levels of intimacy and vulnerability described earlier in this chapter make self-study contrary to those who might like to suggest greater ownership over knowledge. Curiously most often other scholars attempt to subsume self-study under other headings, like action research or practitioner research (Zeichner & Noffke, 2001, for example) or scholarship of teaching (Hutchings & Shulman, 1999; Shulman, 1999). However, that seems to misdirect attention away from the critical element of self-study – the work of self-study scholars interrogates traditional ways of thinking about and practicing research. This work challenges the ways we see and value knowledge and the ways that we seek answers to questions. This is not to say that only those engaged in self-study take up the challenge. Other researchers do also do excellent work that causes reconsideration of old ideas. Instead, it seems that situating self intimately within work provokes deeper worries about researcher-identity and understanding about knowledge ownership and knowledge production. Elements within the core of this educational world can fluctuate depending on perspectives. While there may be cold spots where certain sets of ideas seem caught, there is also the heat of passion and enthusiasm for generating change.

Collaboration

Amidst the ebb and flow of inner core, our cartographer sees a pooling of certain currents. Collaboration and collegiality among self-study scholars is legendary

beyond its community. From some research perspectives this is not vital. From others collaboration, "is not merely an actual or potential attribute of human nature, but constitutes human nature" (Reason, 1994, p. 38). These scholars support each other in developing as well as critiquing ideas. Self-study scholarship fosters collaboration in a variety of ways. Collaborative conversations may, "provide spaces for teachers to become aware of and name what is learned and how it is learned" (Zembylas & Barker, 2002, p. 332). Colleagues may observe and discuss work (Heaton & Lampert, 1993). In these situations the colleagues actively participate and engage in the work. Loughran and Northfield (1998) called it the "shared adventure of ... self-study" (p. 16) where they worked together to depict their knowledge and explore their practice. Self-study also brings, "together ways of seeing ... teaching that are rooted in a shared context [and] characterized by common experiences stemming from participation in a mutually constructed set of teacher education activities" (Dinkelman, 2003, p. 14). He identifies this as collaborative self-study and describes it as facilitating a "sum-is-greater-than-its-parts" experience for those involved (Dinkelman, 2003, p. 14).

Another way researchers engage in self-study work is individually. Although some, like Loughran and Northfield (1998) assert that self-study involves a critical Other actively engaged in the process, others approach this critical Other from an alternative frame. For these scholars (Hamilton, 2002, for example) the critical Other is a strong, yet more subtle element and involves the voices of critical friends with whom the scholars have interacted in the past (see Kelchtermans & Hamilton, this volume for a more developed argument on this point). In Hamilton's work, she employed the writings and the paintings of a 19th century American artist to push forward her ideas about teaching and learning. Others, like Finley and Knowles (1995) and the Arizona Group (2000) have used artist alternative representations to push forward their ideas. These approaches help the researchers better understand the alternative representations and ways they promote an understanding of multiple realities (see Bodone, Gudjonsdottir & Dalmau, this volume, for elaboration on this topic).

Making the Work Public

From early in the creation of the body of self-study research, public representation has been a critical element. With a desire to explore ideas and expose colleagues and students to new ways of thinking about practice, conference presentations and public conversations accompanied the work itself. Like many others, this group of scholars believes that opening their research for public discussion contributes to the development of the professional knowledge base and encourages colleagues to consider alternatives. These scholars also prepared manuscripts for publication with varying results. Because the nature of work and newness of ideas, initially publications resisted and rejected the text. The publication of this Handbook illustrates that times have changed.

Returning to the question, what does self-study contribute to teacher education in the creation of a professional knowledge base? Perhaps most importantly,

self-study and the research associated with it provide an alternative to exploring teacher education – from a particular and critical perspective. In turn, the researchers model for their students and their colleagues ways to consider more deeply their own practices. Some might say that this is not knowledge generation because it lacks breadth, however, self-study scholars challenge and contest that view of research.

As collaboration is an important element of self-study and "essential to the success of self-study" (Barnes, 1998, p. xii), the public part of collaboration is not overlooked. A central purpose for going public throughout the process as well as at the conclusion of the work is to obtain critical review and evaluation from colleagues, including most particularly other teacher educators and researchers, classroom teachers and their students, and the students of the teacher educator engaged in self-study. How do these ideas hold up? How do we make sense of all of this? In the discipline of noticing, the fourth element includes, "the construction, refinement, and modification of means to communicate" so that those engaged in this reflexive action can publicly explore the work (Mason, 2002, p. 94).

There is an expectation that researchers engaged in self-study will carefully check data gathered and interpretations made with others. Loughran and Northfield (1998) state that the, "value of the involvement of others becomes evident in practice and is well demonstrated when interpretations, conclusions or situations resonate with others who have had the opportunity to analyse the data independently" (p. 12). The public nature of the work affords researchers and colleagues to bring alternative perspectives to bear during the analysis and interpretation of the data collected. In turn, this confronts the perceptions that the researcher has about the teaching process under investigation and to help reframe knowledge and understanding (Barnes, 1998). From this point, the self-study researcher also interacts with published and/or collected text to deeper understandings and explores knowledge. As Hamilton and LaBoskey (2002) state, although, "the work has been engaged in order to directly inform and transform the understanding and practice of those involved in the self-study, the intention to be useful by other members of the scholarly community is also inherent in the work" (p. 6). Work in the self-study of teaching practices can influence the teaching practices of teachers and teacher educators as well as contribute to the knowledge held about practices and institutions by members of the educational world (Zeichner, 1999). For Hamilton and Pinnegar (1998), as "one's educational practice improves, accounts of it and therefore knowledge about it is added to the knowledge base of the teaching and research community" (p. 243).

A Caution

Watching the intense activity of this world's core suggests tension and pressures. Should objectivity be something pursued? Is this something that exists in ways currently defined? Our cartographer wonders about this, and realizes she has

again returned to tensions mentioned earlier in her mapwork. The turbulence seems inescapable.

While questions about the continuum of objectivity may continue, certain issues about self-study can be addressed and acknowledged. For example, what self-study scholars might learn from these queries into the work is the value of offering solid evidence about where the knowledge is in the practical knowledge we assert that teachers have. These questions seem haunting like the work and worry of Whitehead (1993, for example) that suggests that we need to explore our living contradictions and provide concrete evidence for our assertions. For example, if we say we have practical knowledge – where's the evidence? Clearly Fenstermacher and others focused on their notion of an objectively reasonable search for knowledge. Self-study scholars seem more committed to a conscious, clear, trustworthy research path where they demonstrate their integrity through research action. Further, Baird (2000) suggested that self-study researchers manifest their intention in their work – that is, the intention to make their work conscious, clear, and public.

A critical point here is that the power of self-study work can be undermined by a lack of apparent methodology and approach to the research. Richardson (1994) suggests that there is no formal methodology to this work, although she later suggested the possibility of different warrants being involved (Richardson, 2000a). She and others wonder about the need for general laws and she (2002) cautions researchers to remain semi-skeptical … [and] honor … strong intellectual critique of [their] work (p. 20). Yet, the postmodern/poststructural perspectives would suggest that general laws may not fit this reality. While it may be the intention of self-study researchers to be explicit about their work, sometimes, at least earlier in the history of this work, they did not always succeed. Erickson (2000) addressed the importance of the work and encouraged the self-study community to bring it into the mainstream academic world.

Eighth Map – What is the Relationship Between a Professional Knowledge, Teacher Education and Self-Study?

Our cartographer gathers her maps together. She ponders, if we accept that a base of knowledge is a foundation rather than "the" structure itself, and there are multiple possibilities for knowing, and if we accept that studies of particular experiences can contribute to that base, and if we continue with our metaphor, our cartographer is now ready to return to space with better clarity about what she sees. This time, because she has gathered her cartographic treasures together, she decides to use cameras that scan to record information in high resolution. She will again view this (educational) world. Along with seeing the clouds, the land, the peoples, and more, she sees something else. From her vantage she sees a "third space" (Bhadha, 1994). This third space is the space between – that slips into and out of the margins to questions about the regimes of truth. Ellsworth (1997) offers this example: "good/ /bad" with the space in the middle as a third space (p. 145).

Third Space

The shifting areas between self-awareness and inquiry (Jackson, 2000) exist in the third space. Walter (2002a, 2002b) calls it a borderland and, citing Rosaldo (1993), asserts that the "spaces 'between order and chaos' are borderlands endowed with 'a curious kind of hybrid invisibility' (p. 208)" (p. 3). This space is, "a space between public and private spheres, secular and religious duties, male and female roles, and between socioeconomic locations among the classes" (Walter, 2002b, p. 15). This third space challenges the categorization of referent points. Out beyond technical rationality in the indeterminate zones of practice (Schön, 1983) among borders and margins, knowledge and identity brush together. This third space contests the Cartesian dualities that hinder and obfuscate the space beyond traditional boundaries.

In this third space, as we challenge and interrogate possibility, when Fenstermacher (1994) says,

> In my opinion, objectively reasonable belief is an acceptable form of knowledge with in the context of educational practice (although it may not satisfy the canons for educational research, at least not in the more conventional science conceptions of educational research). (p. 24–25)

How does that statement differ from the "I's" of self-study? When Richardson says,

> … I feel that those who are intent upon turning practical inquiry into formal research need to move across similar studies in the literature, and begin to place their work within theoretical frameworks that allows their work to contribute to theory in significant ways (2002, p. 20),

how does that differ? When others write about their work that examines their practice, how is that different? And if their "I's" are more powerful is that in relation to the texts they cite?

Even the distinction of formal knowledge/practical knowledge throws us back to a dualistic, false opposition. As others have suggested before (the works of Connelly & Clandinin including chapter 16 in this volume, the works of Cochran-Smith & Lytle, including chapter 17 in this volume to name a few) perhaps these issues reflect a power-knowledge relation. When someone in higher education offers a point of view, or a teacher offers a point of view, or a student offers their point of view, we might consider those possibilities and more.

Bhabha advocates a dramatization of the, "space between theory and practice … [with] … mutual exchange and relative meanings" (Graves, 2003, p. 1) and suggests that in "splitting open those 'welds' of modernity" a different view emerges (Bhabha, 1994, p. 238). In the third space there is, "no longer a single set of discourse about progress and change" (Kanu, 2003, p. 77). Instead, it "destroys this mirror representation in which cultural knowledge is customarily revealed as an integrated, open, expanding code" (Bhabha, 1994, p. 37).

This space challenges modernist understandings. Here you trouble the categories (Lather, 2001), negotiate identity (English, 2002), and interrogate meaning. English (2002) cites Todd's (1997, p. 251) description of the third space as a, "mucous space, a shared space where each is involved in an exchange with the other" (p. 110). This slippery, sticky space is hard to hold onto and see with clarity.

From this space, even the "authority of experience", addressed by Russell and Munby (1994, for example), and Loughran, Mitchell, and Mitchell (2002), can be challenged. In her writings, hooks (1994) explores essentialism and experience, that is, when one is asked (or implicitly expected to) represent the many. As she critiques this notion she states that if, "experience is already involved in the classroom as a way of knowing that coexists in a nonhierarchical way with other ways of knowing, then it lessens the possibility that it can be used to silence" (p. 84). She continues that,

> I am troubled by the term 'authority of experience,' acutely aware of the way it is used to silence and exclude. Yet I want to have a phrase that affirms the specialness of those ways of knowing rooted in experience. I know that experience can be a way to know and can inform how we know what we know. (p. 90)

As she troubles this issue, addressing the value of having a black professor teach a college-level black history class, hooks resolves that, "to me this privileged standpoint does not emerge from the "authority of experience" but rather from the passion of experience, the passion of remembrance" (p. 90).

As teacher educators, as self-study scholars, we cannot easily discount our use of the terms authority of experience, nor is that the purpose of raising the issue here. Further, it is not the purpose here to take issue with hooks' perspective. Instead, looking at hooks' work in relation to our own can provide a third space to consider alternative views.

Our cartographer sits back and surveys her maps. When I began," she contemplates, "I asked 'How can I make sense of a(n educational) world where thinkers shortcut their understandings of the nature of knowledge and underestimate the strength of alternative views?' and I need to ponder my answer." She arranges her maps; she looks at her tools and asks "What do I know?" In the questioning process we see that several paradigms exist. While there are certainly more than two, in this chapter we delineated two possibilities to explore alternative views. The modernist view seems to take a more standard view that attempts to capture in a static way the view of knowledge having right and wrong answers. The alternative view presented here is a postmodern/poststructural view that seems to take a view of multiple perspectives that opens rather than closes the consideration of truth. The educational world explored seems to have these perspectives and more within it.

We must consider whether we will accept the view of a professional knowledge base as an anchor to the real world of teaching with real events and where

evidence for beliefs and ideas are supported with evidence. In turn, this knowledge base serves as a foundation for teacher education programs. The knowledge shared in classrooms as well as the strategies and models used to present the knowledge are elements of that base. For the professional knowledge base and the teacher education programs, self-study appears to be valuable way to explore these issues.

Good self-study where a range of acceptability may be wider, that is, researchers are not worried about a level of objectivity beyond self, and the interpretations includes questions like: "What is data?" "What counts as knowledge?" "What counts as data?" From there, the researchers are willing to account and accept multiple interpretations.

The subjectivity in self-study research is on the part of the researcher who takes responsibility for that subjectivity and on the part of the reader. It is the reader who decides about the evidence and the value of the work. The self-study scholar can do good work, present good information in a reasonable way, can offer a valid interpretation, but the reader decides whether or not to accept it. That is the nature of the work. Self-study research is more than practice and more than thinking about practice. As we consider the relationship of professional knowledge, teacher education, and self-study, in this third space we see a strong relationship between the anchor of professional knowledge and the structure of teacher education, along with a way to study this relationship using self-study. Moreover, there is encouragement to keep looking beyond the traditional boundaries. Our cartographer appears ready to embark upon her next task.

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