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An interpretive inquiry of preservice teachers' reflections and development during a field-based elementary physical education methods course

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AN INTERPRETIVE INQUIRY OF PRESERVICE TEACHERS' REFLECTIONS AND DEVELOPMENT DURING A FIELD-BASED ELEMENTARY PHYSICAL EDUCATION METHODS COURSE

by

Mary Ann Sebren

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APPROVAL PAGE

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The purpose of this study was to analyze and describe the reflections and development of seven preservice teachers during a field-based elementary physical education methods course. The research was guided by a focus on what the preservice teachers learned, how that learning changed over time, and how reflection impacted the preservice teachers' development during the methods course.

The theoretical context which informed this study included adult cognitive development, teacher concerns, differences between experts and novices, teacher perspectives, and teacher reflection. Learning was viewed through the lens of cognitive psychology.

Data sources included nonparticipant observations of methods course meetings and field experiences, documents, interviews, and audiotaped weekly reflection sessions. Data analysis involved a constant comparison method.

As a result of data analysis, the preservice teachers were divided into two groups. The first group began the semester with an orientation towards teaching as control and shifted to a greater focus on teaching for learning by the end of the semester. The second group began the semester focused on teaching for learning and continued to grow within that orientation during the semester.

The two groups of preservice teachers were compared and contrasted in light of four areas of preservice teacher development which emerged during the study: a) inclusion of the self in knowing, b) development of classroom management knowledge, c) development of an image of the subject matter, and d) development within the components of pedagogical content knowledge. The first group exhibited characteristics similar to but less developed than the second group by the end of the study. Finally, the potential impact of reflection on preservice teacher development and implications of the study for teacher education were explored.

DEDICATION

Dedicated to
(and in memory of)

my Mother, Belle Sebren

and

my Father, Sidney Sebren

You loved me, taught me, believed in me,

encouraged me, and supported me.

From you I learned the importance of

living joyfully and courageously,

the true worth of friends and relationships,

and

the essence of seeking the Divine within.

I thank you for your gifts to my life

and

I honor you with this dissertation.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Current views in the literature on teacher education in physical education suggest a growing commitment to the development of reflective, progressive preservice teachers with a strong knowledge base for teaching (Bain, 1990; Ennis, Mueller, & Zhu, 1991; Gore & Bartlett, 1987; K.C. Graham, 1991; Rovegno, 1991, 1992a, 1992b). Perhaps the strongest vehicle in physical education teacher education for fostering the development of such preservice teachers is an emphasis on preservice teacher reflection.

Reflection on teaching has been referred to as the new zeitgeist in teacher education (Zeichner & Tabachnick, 1991). The literature abounds with attempts to conceptualize different traditions and orientations towards teacher reflection, to establish programmatic structures and conditions necessary to foster reflection, and to propose strategies for facilitating reflection (Clift, Houston, & Pugach, 1990; Grimmet, 1989; Grimmet & Erickson, 1988; Richert, 1990; Roth, 1989; Tabachnick & Zeichner, 1991).

Teacher reflection has been associated with desired benefits and learning in teacher education. Studies have shown that reflection encourages a sense of empowerment in teachers as they gain greater control of their own classroom practices (Nolan & Huber, 1989; Wildman & Niles, 1987). Nolan and Huber suggested that reflection promotes an increased belief in the ability to effect

students' learning and a greater interest in self-improvement and learning. Reflection has also been associated with more progressive orientations towards teaching (K.C. Graham, 1991; Zeichner & Liston, 1987). Progressive teaching perspectives are characterized by the ability to use reflection to guide action, to identify relationships between theory and practice, to take a questioning attitude, to use alternative approaches during lessons, and to exhibit greater autonomy and confidence (K.C. Graham, 1991).

Research has begun to focus on the reflections of preservice teachers early in their professional preparation (Ferguson, 1989; Goodman, 1991; Gore & Bartlett, 1987; Ross, 1989; Rovegno, 1992a; Sebren, 1989). It has been suggested that the development of reflective ability in preservice teachers is difficult because preservice teachers lack a substantive background of experience and knowledge upon which to reflect (Bullough, 1989; Calderhead, 1989; Ross, 1989; Wildman & Niles, 1987; Zeichner & Liston, 1987). Recent studies, however, have indicated that preservice teachers can learn to reflect and value the role of reflection in their lives as teachers (Goodman, 1991; Gore & Bartlett, 1987; Richert, 1990; Rovegno, 1992a; Sebren, 1989).

Elbaz (1988) stated that the inclusion of reflection in teacher education is based, not on research results that reflective ability can be increased and enhanced, but on the value perspective that "reflection is an essential characteristic of teaching and learning" (p. 171). Shulman (1987) has located reflection as an central element within his cycle of pedagogical reasoning and action. The cyclical process of comprehension, transformation, instruction,

evaluation, reflection, and new comprehension locates reflection so as to make it the bridge that reopens the cycle with new understandings and purposes (Shulman, 1987). There is much left to learn about the role of reflection in the pedagogical reasoning of those who are learning to teach.

Bullough (1989) proposed that reflection in preservice teacher education be "couched in a conception of teacher development" (p. 16). An understanding of how preservice teachers develop during professional preparation serves to help teacher educators better interpret and respond to preservice teachers' struggles and problems (Rovegno, 1990). Knowledge of preservice teachers' developmental capabilities and the ways in which preservice teachers approach learning to teach can be a fundamental aspect of teacher educators' pedagogical content knowledge (Shulman, 1987).

The reflections of the preservice teachers in this study were linked to field experiences embedded within an elementary physical education methods course. Research has indicated that early field experiences can have a positive impact on preservice teacher development. Preservice teachers' knowledge has been found to become more detailed, integrated, and contextual in association with early field experiences (Rovegno, 1989, 1990; Yinger, 1987). Yinger (1987) found that preservice teachers learn to see the big picture in acquiring new knowledge related to activities and routines for management and instruction. Preservice teachers' subject matter knowledge has been found to become more connected and complete and even reconceptualized during field experiences linked to methods courses (Carter, 1990). Researchers have also found that

early field experiences were associated with preservice teachers' developing knowledge of children and how children learn specific subject matter (Evans, 1986; Grossman & Richert, 1988; Rovegno, 1992b). Finally, K.C. Graham (1991) linked the development of progressive perspectives of teaching to practicum experiences embedded within a program emphasis on reflection and inquiry.

The use of field experiences in preservice teacher education needs to be rooted in a greater understanding of the relationship between field experiences and preservice teachers' development and learning. Providing opportunities for preservice teachers to reflect on teaching during early field experiences provides a way for preservice teachers to learn from teaching and a way for teacher educators to learn from preservice teachers.

The focus of this study was on preservice teachers' reflections and development during a field-based elementary physical education methods course. It serves as an addition to recent efforts to describe preservice teachers' knowledge growth and paths towards expertise in teaching.

Purpose and Methodology

The purpose of this study was to describe and analyze preservice teachers' reflections on teaching during a elementary physical education field-based methods course. The interpretive paradigm was selected because of its resonance with the researcher's world view and because of its appropriateness for investigating questions related to teacher reflection and development. Four questions emerged as the guiding focus of the research.

1. What were the preservice teachers learning about the content of physical education, about classroom management, about how children learn, and about themselves as teachers?

2. How did that learning change over time?

3. How were the preservice teachers' perspectives, concerns, and cognitive developmental levels associated with their changes and growth throughout the semester?

4. How did the reflection sessions influence the preservice teachers' development during the semester?

Seven preservice teachers participated in the study. Data were gathered through observations of field experiences and methods course class meetings, interviews, and collection of documents. Reflection sessions designed specifically for this study served as an additional data source. The participants met weekly for one hour outside of regular methods course hours for the purpose of reflecting on their field experiences. Data analysis was conducted in accordance with a constant comparison methodology (Glaser & Strauss, 1967; Lincoln & Guba, 1985).

Researcher's Orientation

The interpretive paradigm acknowledges the primacy of the researcher as the data-gathering instrument (Lincoln & Guba, 1985; Locke, 1989). The effort to provide as much information about context as possible must necessarily include information about personal views, beliefs, and perspectives upon which the researcher, either consciously or unconsciously, may draw

(Goetz & Lecompte, 1984). My view of research as connected knowing, my orientation towards reflection in teacher education, and my a priori knowledge of cognitive psychology were the most salient lens through which I conducted the study and interpreted the data.

Research as Connected Knowing

My intent during this study was to engage in the research through the mode of connected knowing. (Belenky et al., 1986). Connected knowing is a form of knowing in which one receives others' experiences into the mind, rather than invading another's mind to gain knowledge or understanding (Belenky et al., 1986). Connected knowers perceive their purpose as "not to judge but to understand" (Belenky et al., 1986, p. 116). Belenky et al. described connected knowers as employing procedures for accessing others' knowledge and experience through their capacity for empathy. Connected knowers recognize that they are able to have only limited access to others' knowledge and experience (Belenky et al., 1986; Polyani, 1967).

My goal was to interact with the participants in the study through conversations in a connected mode. In other words, I intended to establish a connection with whom, or what, I was trying to understand. I was especially concerned with building an attitude of mutual trust. I engaged in the research with the intent to learn through empathy, that is, by adopting the lens of the other to foster understanding (Belenky et al., 1986). My mode of data gathering involved both thought and feeling as I integrated the knowledge

which bound my research with an ethic of caring for the individuals I came to know and respect.

Orientation Towards Teaching and Teacher Education

The research process involves the integration of knowledge which is intuitively and personally important with knowledge learned from others (Belenky et al., 1986, Goetz & Lecompte, 1984). The conception of this study grew out of my own value for the inclusion of reflection in teaching and teacher education. I viewed reflection as an important avenue for fostering knowledge growth for teaching. I was particularly oriented towards encouraging growth in subject matter knowledge within a human movement conceptualization of elementary physical education content (Barrett, 1988; Logsdon, Barrett, Ammons, Broer, Halverson, Mcgee, & Roberton, 1984).

I also held a strong value for reflective ability as a link in the development towards more subjective and constructed knowing (Belenky et al., 1986). Learning to listen to one's own voice in the development of knowledge is critical, not only for development towards expertise in teaching, but ultimately for the ability to question the status quo of physical education and schooling.

A Priori Knowledge of Cognitive Psychology

My sense of my self and myself as teacher has been molded to some degree by my knowledge of the literature on different ways of knowing. My understanding of different epistemological positions has enabled me to give meaning to my own knowing and teaching, and consequently, to give meaning to the knowledge and knowing of others. This orientation has led me to a

particular interest in the field of cognitive psychology for understanding preservice teachers' knowledge and their development in learning to teach.

The cognitive psychological lens I carried for this study involved certain views of learning and knowing. Learning was viewed as coming to understand through knowing relationships (Pines, 1985; Resnick, 1989). Changes in cognitive structures, or schemata, were understood to result in knowledge growth and development (Rumelhart & Norman, 1978; West & Pines, 1985). Knowing was also understood to involve certain assumptions about knowledge and reality which determined one's epistemological position or developmental level (Belenky et al., 1986; Kitchener & King, 1981; Perry, 1970). Reflection on experience was considered to be a central component in learning and development (Boyd & Fales, 1983; Boud, Keogh, & Walker, 1985b). Further elaboration of these views is presented in Chapter II.

Organization of the Dissertation

Chapter II presents the literature which served as the theoretical context of the study. Four bodies of literature are reviewed in relation to their contribution to understanding preservice teacher development: a) theories of adult cognitive development, b) stages of teachers' concerns, c) expert-novice studies, and d) preservice teachers' orientations towards teaching. Literature on teacher reflection in preservice teacher education is also reviewed. Chapter III describes the context in which the study was conducted and includes descriptions of the elementary physical education methods course, the reflection sessions designed for the study, and my role as facilitator of the reflection

sessions and as researcher. Chapter IV describes the methodology of data gathering and analysis and includes a discussion of the evolution of the research questions as they emerged during the study.

Chapters V and VI present the interpreted research findings. The seven preservice teachers who participated in this study were categorized as within one of two groups. Chapter V presents the data for the first group of preservice teachers who began the semester focused on teaching as a problem of control and who evolved into a concern for teaching for learning. Chapter VI presents the data for the second group of preservice teachers who began the semester focused on teaching for learning and who continued to grow and learn within that orientation throughout the study. Chapter VII presents a discussion of the four common themes of preservice teacher development during this study: a) the inclusion of the self in knowing, b) development of classroom management knowledge, c) development of an image of the subject matter, and d) development within the components of pedagogical content knowledge. Chapter VIII focuses on the potential impact of reflection on preservice teacher development and on the implications of this study for teacher education and future research.

CHAPTER II

THEORETICAL PERSPECTIVES

The purpose of this chapter is to review the literature which provided the theoretical context for the methodology and interpretations of this study. The first section reviews four bodies of literature related to preservice teacher development: a) theories of adult cognitive development, b) stages of teacher concerns, c) expert-novice studies, and d) preservice teachers' orientations towards teaching. The second section focuses on recent conceptions of teacher reflection and the facilitation of reflection in preservice teacher education.

Preservice Teacher Development

Adult Cognitive Development

There is a growing body of theoretical literature and research which conceptualizes adult cognition as a developmental progression of qualitative changes in cognitive structure (Basseches, 1984; Blanchard-Fields, 1989; Kitchener & King, 1981; Labouvie-Vief, 1984; Perry, 1970). The theorized progressions of adult cognition are linked to the metacognitive, epistemological orientations (i.e., beliefs and assumptions about knowledge and reality) that underlie qualitative changes in cognitive structure. A review of the theoretical models of adult cognitive development reveals a broad common ground concerning the characteristics of adult thought.

Characteristics of Adult Thought

Progression from received knowing to constructed knowing. The current models of adult cognitive development suggest that adult thought shifts from a dualistic, received epistemological orientation to a relativistic, constructed epistemological orientation. Dualistic thinking is described as a two-category belief system of right and wrong, or true and false, in which different perspectives are resolved through the determination of which is correct (Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970). Dualistic thinking, or received knowing, is characterized by literal thought and a belief that truth is absolute and determined by authorities (Belenky et al., 1986; Blanchard-Fields, 1989; Harvey, Hunt, & Schroder, 1961; Labouvie-Vief, 1984).

The transition from dualistic thought to relativistic thought has been considered as central to adult cognitive development. In relativistic thought reality and knowledge are considered to be contextual and constructed (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener & King, 1981; Labouvie-Vief & Hakim-Larson, 1989). The analysis, comparison, and evaluation of knowledge within a given context leads to the ability to make commitments on the basis of the rules of inquiry (Kitchener & King, 1981; Labouvie-Vief, 1984; Perry, 1970). The ability to make commitments arises from the epistemological perspective that knowledge, having social, moral, and personal characteristics, is created and constructed by the self (Belenky et al., 1986; Labouvie-Vief, 1984).

Role of the self in the construction of knowledge. One central characteristic of adult thought is the acknowledgement of self as the creator

and interpreter of knowledge (Belenky et al., 1986; Benack, 1984; Blanchard-Fields, 1989; Labouvie-Vief, 1984; Perry, 1970). Perry (1970) concluded that this realization, along with the encounter of multiple perspectives, is a critical moment in the development of relativistic, constructed thought. Dualistic, received perspectives are replaced by the realization of the inherent subjectivity of experience and, consequently, knowledge becomes conceptualized as relative and contextual (Rybash, Hoyer, & Roodin, 1986). As Belenky et al. found, constructed knowers realize that "the knower is an intimate part of the known" (p. 137). It is through the realization of the role of self in knowing that individuals are empowered as they claim their own knowledge, leave their dependence on external authorities, and become more self responsible (Belenky et al., 1986; Hunt, 1975; Perry, 1970). The inclusion of the self in one's own knowing allows the knower to make conscious, active decisions and commitments, rather than passive or reactive ones, concerning particular perspectives (Perry, 1970). The ability to recognize the role of the self in knowing can also influence empathic understanding, or the recognition of others' perspectives (Benack, 1984).

Encountering multiple perspectives/uncertainty. The transition from dualism to relativism also depends on the ability to acknowledge the existence of multiple perspectives (Basseches, 1984; Belenky et al., 1986; Benack, 1984; Blanchard-Fields, 1989; Harvey et al., 1961; Kitchener & King, 1981; Labouvie-Vief & Hakim-Larson, 1989; Perry, 1970). The initial confrontation with multiple perspectives results in uncertainty. Temporary uncertainty occurs

when a belief in absolute truth is still held. In temporary uncertainty the knower believes that uncertainty is the result of simply not yet having all the information (Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970).

On the other hand, a more permanent uncertainty occurs when the notion of an absolute truth is no longer a pervasive epistemological orientation (Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970). At this level, knowers clearly define different interpretive frameworks, or multiple frames of reference, and the individual as interpreter is acknowledged (Blanchard-Fields, 1989). Benack (1984) found that the ability to recognize multiple, subjective perspectives allows the knower to differentiate his or her experience from another's experience enabling the knower to more empathetically understand another's experience.

A central characteristic of the epistemological position of multiplicity is the belief that all views can be held as equally valid because there is no way to determine which is right or better (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970). As knowers continue to struggle with the implications of multiple perspectives, they eventually come to recognize the need to weigh discrepant sources of information in order to determine the best or most correct perspective for a particular context (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970).

Understanding of context. The ability to comprehend the contextual nature of knowledge is integrally linked to the acknowledgement of multiple

perspectives. Belenky et al. (1986) described the contextual nature of constructed, relativistic knowers.

> Constructivists understand that answers to all questions vary depending on the context in which they are asked and on the frame of reference of the person doing the asking....To see that all knowledge is a construction and that truth is a matter of the context in which it is embedded is to greatly expand the possibilities of how to think about anything. (p. 138)

Just as in formal thinking, contextual thought requires an understanding of the factors or variables that exist within a given situation (Arlin, 1984; Harvey et al., 1961; Koplowitz, 1984). In contextual thought, however, variables are understood as acting interdependently with one another in the formation of the context, or situation, as a whole (Arlin, 1984; Harvey et al., 1961; Koplowitz, 1984). Koplowitz (1984) suggested that in contextual thought, which he calls a general systems stage, causality becomes cyclical or interconnected, rather than linear as in more dualistic, formalistic thought. In his view, the understanding of cyclical causality and the interdependence of variables excludes the concept of blame as situations are no longer seen as the result of any one action or one individual. A contextual perspective ultimately allows the adult thinker to consider different perspectives with increased empathy and the intent to understand rather than the need to judge (Benack, 1984; Gilligan, 1989).

Adult Cognitive Development and Teaching

Several studies have investigated the influence of adult cognitive developmental levels on teachers. Oja and Pine (1987) found that teachers with less complex ways of knowing had high concerns about the issue of

authority and control and were focused on minimizing controversy and on maintaining rules rather than questioning purposes of rules. Teachers at more complex levels of knowing demonstrated an increased self awareness and capability for introspection and an appreciation and understanding of multiple possibilities and alternatives in problem solving situations (Oja & Pine, 1987).

Teachers with more constructed, complex ways of knowing have been described as more flexible and adaptable, more responsive and empathetic to students, more able to recognize individual differences, and less authoritarian (Glassberg & Sprinthall, 1980; Hunt, 1975; Sprinthall & Thies-Sprinthall, 1983). The ability to "read and flex" with students during the lesson is indicative of their ability to consider others' perspectives (Sprinthall & Thies-Sprinthall, 1983).

Several studies have indicated that teachers at more complex levels of development demonstrate a wide repertoire of skills. Teachers at higher conceptual levels have been found to employ a variety of teaching models and create multiple levels of structure within the classroom in relation to students' needs (Glassberg & Sprinthall, 1980; Sprinthall & Thies-Sprinthall, 1983). They have been described as perceiving problems more broadly, an indication of their understanding of context and multiple perspectives (Sprinthall & Thies-Sprinthall, 1983).

Teachers' levels of cognitive and interpersonal development have also been discussed in relation to teachers' locus of control. Locus of control is a construct devised as a way to identify whether an individual attributes

responsibility for events more to oneself or to external factors outside of one's self and one's control (Brophy & Evertson, 1976). Glassberg and Sprinthall (1980) stated that with increased cognitive development a change occurs in teachers' locus of control. Teachers become less directed by others and demonstrate increased self-direction, independence, and autonomy (Glassberg & Sprinthall, 1980; Hunt, 1975). These characteristics speak to the teachers' ability to include themselves in their own knowing.

The development of adult cognition plays a critical role in the ability to be reflective, and this relationship is beginning to emerge in the literature and research on teacher reflection. Several authors have used characteristics of adult thought in describing the act and goals of teacher reflection (O'Loughlin & Campbell, 1988; Osterman, 1990; Ross, 1989). Studies have also indicated a relationship between teachers' cognitive developmental level and their level of reflection. For example, Zeichner and Liston (1987) suggested that student teachers' cognitive conceptual level may have influenced the level of reflective discourse (i.e., the ability to recount and evaluate actions, offer rationale, consider the adequacy of justification, and examine values through social critique) in postobservation supervisory conferences. In a case study on a preservice physical education teacher, Rovegno (1992a) found that the preservice teacher's perspective on knowing was an important factor in her disposition and ability to reflect as well as the aspects of teaching she focused on in her reflections.

Several studies have indicated that young adults (i.e., ages 20 years to 30 years) in college and university settings exhibit a wide range in cognitive developmental level. Young adults' ways of knowing have been found to range from a more dualistic, temporary uncertainty to a subjective, contextual, and relativistic way of knowing (Kitchener, 1986; Kitchener, King, Wood, & Davison; 1989; Schmidt; 1985; Strange & King; 1981; Welfel & Davison, 1986). The influence of the educational setting has been found to be a critical factor in the development towards more relativistic, constructed ways of knowing (Kitchener et al., 1989; Labouvie-Vief & Hakim-Larson, 1989; Welfel & Davison, 1986).

Sprinthall and Thies-Sprinthall (1983) have suggested that developmental stages can be impacted by particular instructional procedures and educational experiences. They suggested a series of differentiated learning environments and different supervision techniques designed to match preservice teachers' way of knowing as they progress through their professional preparation. Individuals at lower developmental stages have been found to learn better under more structured conditions whereas more highly conceptual individuals learn better within conditions requiring more self-directed and open-ended strategies (Sprinthall & Thies-Sprinthall, 1983). Sprinthall and Thies-Sprinthall suggested that preservice teachers at lower conceptual levels be gradually introduced to more unstructured learning experiences as their professional preparation progresses.

Teacher Concerns

Teacher development has also been conceptualized as stages of concerns which evolve and change as a teacher progresses through professional preparation and inservice teaching in the schools. Most conceptualizations of teacher concerns are rooted in the work of Fuller (1969).

Stages of Teachers' Concerns

Fuller and Brown (1975) suggested that preservice teachers encounter preteaching concerns prior to their first field experiences. Teachers in this phase of their professional preparation rarely have concerns related to teaching itself. Fuller and Brown have called this the period of nonconcern for the specifics of teaching. Ryan (1986) described this period as one in which preservice teachers imagine themselves to be just like their own best teacher or imagine the worst case scenarios of student misbehavior in class. These concerns are interrupted by the preservice teachers' first teaching experiences.

As preservice teachers encounter children for the first time as a teacher, early concerns about survival become their focus (Fuller & Brown, 1975). Preservice teachers become fixated on classroom control and on issues related to self. Feelings of inadequacy are prominent during this time. They question their own adequacy of subject matter preparation for teaching and their ability to manage the classroom. They also become very concerned about supervisory evaluations.

As teachers become more comfortable in the classroom and develop confidence, they become more concerned about issues related to the teaching

situation (Bullough, 1987; Fuller & Brown, 1975). These concerns have also been called task concerns (Behets, 1990; Boggess, McBride, & Griffey, 1985). For example, teachers become concerned with methods and materials. They also focus on the subject matter and how to explain and represent it for teaching. Fuller and Brown suggest that these concerns are added to survival concerns as the focus is still on the teachers' own performance rather than on the children's learning.

The final stage of teacher concerns is a focus on student learning. Fuller & Brown (1975) stated that concerns about understanding student abilities, assessing student progress, and evaluating teaching in relation to student learning are evident during this time. Ryan (1986) has referred to these concerns as impact concerns. Fuller and Brown suggested that, although preservice teachers express impact concerns, they may not be able to act on them until they have learned to cope with their own feelings of inadequacy and other teaching situation concerns.

Studies on Teacher Concerns

Evidence is conflicting as to whether Fuller's theorized stages of concern occur in a predictable and uni-directional progression. For example, in support of Fuller's theory, Reeves and Kazelskis (1985) found that preservice teachers had a higher concern for self than for task, and a higher concern for self than did experienced teachers. Wendt, Bain, and Jackson (1981) and Wendt and Bain (1989) found that, consistent with Fuller's stages, preservice physical education teachers after student teaching had lowered their concerns for self

and for task. Boggess et al. (1985), on the other hand, found no change in concern for self during the student teaching semester of preservice physical education teachers.

One of the most interesting findings among the studies on preservice teachers' concerns is the high level of impact concern. Studies have consistently demonstrated that preservice teachers express concerns about student learning even when self concerns are also high (Behets, 1990; Boggess et al., 1985; Reeves & Kazelskis, 1985; Wendt & Bain, 1989; Wendt et al., 1981). At first glance, these findings may appear to be inconsistent with Fuller's theory that impact concerns develop after the resolve of self and task concerns. A closer review of the findings suggests, however, that other explanations can be offered.

Many studies which have found that preservice teachers' concerns often do not develop corresponding to Fuller's theory are largely based on data collected with the use of the Teacher Concerns Questionnaire (TCQ) developed by George (1978). Behets (1990) studied the concerns of preservice teachers through the use of the TCQ and a logbook in which they were asked to record their concerns at the end of each teaching experience. Although data collected through the TCQ indicated that the highest preservice teacher concerns were impact concerns, the logbook data provided a different picture. The logbook entries indicated that self concerns were by far the most salient, followed by task, with impact concerns being least on the minds of the preservice teachers. Behets suggested that the TCQ may reflect idealistic concerns, whereas

methods such as daily reporting may elicit more realistic concerns. Fuller and Brown (1975) echoed this possibility when they suggested that preservice teachers may have impact concerns but can not yet act on them until self and task concerns are manageable.

In a qualitative case study of changes in the planning of a first-year teacher, Bullough (1987) found that the beginning teacher's development was quite consistent with Fuller's concerns theory. The first-year teacher in this study (Kerrie) taught English, social studies, and reading in a junior high school. Bullough grounded Kerrie's changes in the stages of concerns proposed by Ryan (1986). The changes in Kerrie's planning approximated the stages of concerns as theorized by Fuller. Bullough found that, during the fantasy and survival stages, Kerrie was consumed with the establishment of order and classroom control. Control became the criterion for instructional decisions and teacher effectiveness. During this time she was also focused on finding what worked and was very dependent and reliant on what other teachers suggested.

As Kerrie began the transition into the mastery stage, equivalent to Fuller's task stage, several changes took place. She became more confident in herself and in her abilities to manage the classroom. A critical change was her increased inclination to be more self-critical. Fuller and Brown (1975) suggest that awareness is a central factor in the transition towards impact concerns. In the case of Bullough's (1987) study, Kerrie's confidence and self-analysis enabled her to begin to reject other teachers' suggestions and to rely on her own decisions and perspectives.

Several of the changes in Kerrie's planning were significant. First, she began to plan in greater detail and was better able to anticipate management-related problems. She became less concerned with what to teach and how to do it and more concerned with refining and improving what she was going to do. Bullough (1987) described her as beginning to teach with controlled flexibility as she selected activities appropriate for herself and her students. She began to plan with increased certainty and confidence. Finally, and perhaps most important, her primary concern for planning shifted from a focus on control to a concern for student learning.

The findings of Behets (1990) and Bullough (1987) suggest that other approaches to the study of teacher concerns may provide further insight into both Fuller's theory and the changes which occur in learning to teach. Bullough's study in particular suggests several points of intersection between teacher development through concerns stages and the development of adult cognition and conceptual level. Kerrie's transition into the mastery stage could be characterized by her growing ability to include herself in the construction of knowledge, her developing recognition of multiple perspectives, and her ability to consider the context as she selected activities for teaching.

Expert-Novice Research

Another body of literature relevant to the understanding of preservice teacher development is expert-novice research. Expert-novice research provides insight into two critical areas of information relevant to preservice teacher education. First, the types and structures of expert teachers' knowledge

provide a potential map for content and instruction in teacher education. In addition, the understanding of how novices progress towards expertise yields particularly significant grounding for teacher education.

Expert-novice research is primarily housed within the field of cognitive psychology. The basic concepts of schema and learning provide the backdrop for an adequate understanding of expert-novice studies and their contribution to teacher education.

Fundamental Concepts from Cognitive Psychology

Concept of schema. The term schema is currently used within the literature of cognitive psychology to mean a conceptual structure necessary to "represent the complex relations implicit in the knowledge base" (Rumelhart, Smolensky, McClelland, & Hinton, 1988). Anderson (1984) defined schema as:

> an abstract structure of information. It is abstract in the sense that it summarizes information about many particular cases. A schema is structured in the sense that it represents the relationships among components. (p. 5)

Schemata are, in effect, a set of memories of objects, people, situations, events, sequences of events, actions, and sequences of actions which provide models of the outside world (Rumelhart et al., 1988).

Schemata function in the comprehension and interpretation of arriving information, in the guidance of action, and in the storage of knowledge in memory (Anderson, 1977, 1984; Rumelhart & Norman, 1978; Rumelhart et al., 1988). Schemata provide the ground within which new information is assimilated (Anderson, 1984; Harvey et al., 1961; Wadsworth, 1971). In other

words, information is processed by determining which schema, or configuration of schemata, best fits and accounts for incoming information (Rumelhart et al., 1988).

Schema change and learning. Shuell (1985) offered a view of learning in which the development and change of complex cognitive structures involves both facts and the relationships which bind the facts into meaningful wholes. Similarly, Rumelhart and Norman (1978) view complex learning as having an emergent quality. In their view, learning involves a modification of the organizational structures of memory as well as the accumulation of facts.

Rumelhart and Norman (1978) proposed three modes of schema change, or learning. Accretion is the accumulation of information or the adding of new data to an existing structure in memory. The assumption is made that the schema for interpretation of the data already exists. Tuning involves actual change or modification in the categories used for interpretation. Schemata are modified to bring them into congruence with functional demands. A final mode of learning is called restructuring. In this mode new knowledge structures are created for interpreting new information or for reorganizing information already held. Such new structures allow for new interpretations.

Embedded within the view of learning as schema change is an orientation towards learning as an active, constructive process. A view of constructivism has been offered by Resnick (1989).

> First, learning is a process of knowledge construction, not of knowledge recording or absorption. Second, learning is knowledge-dependent; people use current knowledge to construct new knowledge. Third,

> learning is highly tuned to the situation in which it takes place....Cognitive theories tell us that learning occurs not by recording information but by interpreting it. Effective learning depends on the intentions, self-monitoring, elaborations, and representational constructions of the individual learner. (pp. 1-2)

Learning is, fundamentally, the process through which individuals make their own sense of incoming information (West & Pines, 1985).

Expert-Novice Studies

Differences between experts' and novices' knowledge

Research within cognitive psychology has contributed to the emergence of a deeper understanding of the differences between experts and novices. Expertise does not arise as a result of simply having better problem-solving skills or better perceptual abilities (Carter, 1990; Glaser & Chi, 1988). It is fundamentally the result of highly specialized knowledge structures which are domain-specific (Carter, 1990; Glaser & Chi, 1988).

Carter (1990) stressed that experts' knowledge is organized. Experts' cognitive structures have been described as more elaborate, interconnected, inferential, and accessible than those of novices (Borko & Livingston, 1989; Strahan, 1989). Experts store scenes, patterns, and procedures in memory and organize this knowledge around interpretive, or principle-based, categories which allow them to understand and represent problems in their domain at a deeper level (Berliner, 1986; Carter, 1990; Glaser & Chi, 1988). One feature of this principle-based knowledge is that it reflects the connectedness within experts' knowledge (Needles, 1991; Strahan, 1989). Novices, on the other hand, have knowledge structures which are literal and surface-feature oriented

(Berliner, 1986; Carter, 1990; Glaser & Chi, 1988). Novices have been found to represent problems at a superficial level as a result of their lack of understanding of the relationships and connections among the critical features of their domain (Glaser & Chi, 1988).

Experts' highly organized and inferential knowledge structures are also readily accessible, thus contributing to the view of experts as being faster than novices at performing the skills of their domain (Berliner, 1986; Glaser & Chi, 1988; Kagan, 1988). Kagan (1988) suggested that the experts' highly organized and inferential knowledge structures allow for more automaticity of response as irrelevant information is screened and cognitive load is lessened.

Underlying the ability to screen irrelevant information is experts' knowledge related to practice and the conditions of application. Experts' knowledge has been called event-structured (Carter, 1990; Doyle, 1990). Experts are able to recognize patterns, anticipate and analyze problems, and respond quickly, with changed plans if necessary, as a result of their rich store of knowledge about the conditions of practice of their domain (Berliner, 1986; Glaser & Chi, 1988).

Differences between expert and novice teachers. Research has uncovered several specific differences in expert and novice teachers' knowledge and actions in the classroom. One such difference is the use of routines. Expert teachers have been found to have and use a large repertoire of routines for the classroom (Berliner, 1987; Kagan, 1988; Leinhardt & Greeno, 1986; Reynolds, 1992; Yinger, 1979; 1980). Routines serve the purpose of providing

the necessary structure for the lesson so that the teacher's cognitive load is reduced (Berliner, 1987; Kagan, 1988; Leinhardt & Greeno, 1986). Attention can then be focused on the "important and/or dynamic aspects of the material to be transmitted and the information from the students about how the lesson is progressing" (Leinhardt & Greeno, 1986, p. 94). Experts' routines are developed out of their store of episodic, or event-structured, knowledge about the likely course of events in the classroom (Doyle, 1990; Reynolds, 1992). Their knowledge is highly practical, that is, it is grounded in the knowledge and memories gained through actual classroom practice. Novices have not had the opportunities to develop schemata based on teaching practice.

Novices, having had less experience in classrooms, generally lack a repertoire and consistent use of routines in their teaching (Berliner, 1987; Leinhardt & Greeno, 1986; Reynolds, 1992). Leinhardt and Greeno reported that novices tend to exhibit a constantly changing pattern of organization for activities and spend much time and energy instructing their students in new procedures for each activity.

Routines allow experts to focus more on the subject matter and their students' learning. Experts have been found to draw extensively on their knowledge of the learner in making classroom decisions. It has been suggested that expert teachers know their class before they ever meet them because of their well developed student schemata (Berliner, 1987; Carter, Cushing, Sabers, Stein, & Berliner, 1988). Novices, on the other hand, have not yet had

the opportunity to develop a schema for students adequate to ground their instructional behaviors.

Expert teachers' student schemata include knowledge of the types of behaviors and discipline problems likely to occur (Berliner, 1987). Westerman (1991) found that expert teachers were able to provide reasons for children's behaviors in the classrooms and utilized environmental strategies for preventing or responding to children's behaviors. Novices, on the other hand, have been found to be unable to predict or to provide any reasons for children's actions and, subsequently, either ignore or punish behaviors rather than prevent them (Fernandez-Balboa, 1991; Westerman, 1991).

Another aspect of experts' student schemata is knowledge of what to expect in terms of students' knowledge and skill level and students' typical responses to and difficulties with certain subject matter (Berliner, 1987; Borko & Livingston, 1989; Marks, 1990; Reynolds, 1992). Experts use this information as they consider the subject matter for teaching (Berliner, 1987; Reynolds, 1992). They have been found to consider their students' prior learning and skill as the starting point for subject matter decisions (Berliner, 1987; Fogarty, Wang, & Creek, 1983; Reynolds, 1992; Westerman, 1991). As expert teachers consider the subject matter from the students' perspectives, they are better able to use appropriate representations of the subject matter, to design tasks of appropriate difficulty, and to link the subject matter to past and future learning (Borko & Livingston, 1989; Marks, 1990; Reynolds, 1992; Westerman, 1991).

Westerman (1991) found that novices rarely commented on integrating lesson content with the students' past or future learning as a result of a lack of knowledge of how students learn in a specific subject matter area. Novices have been found to consider students' prior knowledge and skill less often than experienced teachers and to be unable to respond pedagogically to the recognition of student differences (Reynolds, 1992).

Expert teachers have also been described as being able to read student cues and respond with flexibility and adaptability during the lesson (Berliner, 1987; Hunt, 1975; Reynolds, 1992). They tend to be more aware of options, alternatives, and contingency plans than do novices (Berliner, 1987; Housner & Griffey, 1985; Needels, 1991; Reynolds, 1992). Novices tend to stick to their lessons without deviation because they have not yet developed as many potentially appropriate scripts for action and response (Borko & Livingston, 1989; Westerman, 1991).

Finally, expert teachers' decisions and actions indicate that they consider the classroom context in more wholistic and connected ways than do novices. Expert teachers have been described as having a greater understanding of the interconnected elements of a lesson (Needels, 1991). Examples of expert teachers' interconnected knowing includes their ability to contextualize lesson content by situating it within past and future learning (Clark & Peterson, 1986; Westerman, 1991) and their ability to respond to discipline problems with environmental solutions rather than punishment (Swanson, O'Connor, & Cooney, 1990; Westerman, 1991). Ultimately, expert teachers integrate their

knowledge of students, subject matter and curriculum, instructional activities and organizational routines, and their episodic, event-structured memories in classroom decisions and actions.

Preservice Teachers' Orientations Towards Teaching

Two primary orientations towards teaching emerged from the review of the literature on preservice teachers' perspectives of teaching. Goodman (1985, 1988) found that one orientation which preservice teachers hold towards teaching is a view of teaching as management or a problem of control. Preservice teachers with this perspective were primarily focused on encouraging student compliance and on getting the children through the material in a timely and orderly fashion (Goodman, 1985, 1988). Goodman's description is similar to Tabachnick and Zeichner's (1984) conservatively traditional perspective. Student teachers with a traditional perspective viewed knowledge as certain, learning as fragmented and unrelated, teaching as having high control over student learning and behavior, and the role of the teacher in deciding what to teach as bureaucratic (Tabachnick & Zeichner, 1984)

The second orientation towards teaching found in the literature was a progressive view of teaching inclusive of concerns about facilitating students' growth and learning (Goodman, 1985, 1988; K.C. Graham, 1991; Tabachnick & Zeichner, 1984). Goodman found that preservice teachers with this perspective were interested in the subject matter they were teaching, sought relevant information for their lessons, created and uncovered activities through which

children could learn, and were concerned about individualizing instruction and developing children's self-concept. Preservice teachers with this orientation also viewed management as part of a larger instructional problem, rather than as the means for controlling the classroom (Goodman, 1985, 1988; Winitzky, 1990). Tabachnick and Zeichner (1984) found that student teachers with progressive perspectives viewed knowledge as problematic, learning as wholistic and related, teaching as having low control over student learning and behavior, and the teacher's role in deciding what to teach as more functional. Progressive teaching perspectives were characterized by K.C. Graham (1991) as the ability to use reflection to guide action, to identify relationships between theory and practice, to take a questioning attitude, to use alternative approaches during lessons, and to exhibit greater autonomy and confidence.

Summary

The literature on adult cognitive development, teacher concerns, and expert-novice differences supports the division of preservice teachers' perspectives on teaching into orientations of teaching as a problem of control and teaching as a concern for students' learning and growth. Just as teachers develop through concerns for survival to increased concerns for task and impact on students, teachers who are developing expertise have been found to be less authoritarian and more focused on learning as the goal and criterion of their teaching decisions (Berliner, 1987; Carter, 1990; Fogarty et al., 1983; Fuller and Brown, 1975; Leinhardt & Greeno, 1986). Similarly, the development of progressive perspectives towards teaching suggests more interconnected

knowledge structures, the ability to consider multiple perspectives and include the self in knowing, and an increased understanding of context (Blanchard-Fields, 1989; Borko & Livingston, 1989; K.C. Graham, 1991; Tabachnick & Zeichner, 1984).

Teacher Reflection in Preservice Teacher Education

Conceptions of Teacher Reflection

Zeichner and Tabachnick (1991) pointed out that "the 'reflective practitioner' has emerged as the new zeitgeist in North American teacher education" (p. 1). The current conceptions of reflection in teacher education have emerged largely from the works of Dewey (1933). In a book entitled How We Think, Dewey defined reflective thinking as:

> active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends....(p. 9)

Reflection has since been defined in a variety of ways throughout the literature. For the purposes of this study, reflection was considered to be what a teacher does when he or she looks back at the teaching and learning that has occurred, reconstructs and recaptures what happened and the reasons underlying what happened, generates alternatives for change, and considers the moral, and perhaps political, implications of those teaching events (Shulman, 1987; Zeichner & Liston, 1987). What is learned through the reflection process is then incorporated into the teacher's knowledge base and repertoire to be drawn

upon in future teaching and reflection episodes (Schon, 1983, 1987; Shulman, 1987).

Teacher reflection has been incorporated into programs of varying beliefs and ideologies about teaching, teacher education, and the social order (Bullough, 1989; Zeichner & Tabachnick, 1991). As a result, concern has been expressed that teacher reflection will become "a slogan prone to meaninglessness where it may serve comfortably as an aim for any and all types of programs" (Bullough, 1989, p. 15). Zeichner and Tabachnick recommended that reflective practice be encouraged and assessed on the basis of clear priorities embedded within a reasoned educational and social philosophy.

Several efforts have been made to provide a framework for locating reflective practice within certain orientations or traditions of teacher education (Grimmet, 1989; Van Manen, 1977; Zeichner & Tabachnick, 1991). One approach to the conceptualization of teacher reflection has been to propose differing levels of reflectivity (Van Manen, 1977). Van Manen suggested three levels of reflectivity. His first level, reflection as pragmatic deliberative rationality, has as its primary concern the technical application of educational knowledge for the purpose of effectively achieving a given end. Second is reflection as the "process of analyzing and clarifying individual and cultural experiences, meanings, perceptions, assumptions, prejudgments, and presuppositions, for the purpose of orienting practical actions" (p. 226). Van Manen's third perspective, the concept of critical reflection, is reflection focused

on the moral and political concerns of equality and justice within the culture and policies of schooling. He linked this perspective of reflection to the concrete by suggesting that the practical addresses itself "to the question of the worth of knowledge and to the nature of the social conditions necessary for raising the question of worthwhileness in the first place" (p. 227). This view of reflection involves a constant critique of domination and repressive authority while pursuing educational ends on the basis of justice, equality, and freedom (Van Manen, 1977).

In a similar vein, Grimmet (1989) proposed three perspectives of teacher reflection based on the source of the knowledge reflected upon, the primary mode of knowing in reflection, and how knowledge is used as a result of the reflective process. In Grimmet's first perspective of reflection, which he called reflection as instrumentally mediating action, emphasis is placed on the use of knowledge to direct and control practice for the purpose of applying and conforming to the findings of empirical research. In this view reflection is considered to be thoughtfulness about action for the purpose of applying research findings in such a way that practice conforms to what research has found to be effective for student learning.

The second perspective proposed by Grimmet (1989) is reflection as the deliberation among competing views of teaching. This perspective involves "considering educational events in context and anticipating the consequences of different lines of action" of competing versions of good teaching (p. 21).

Grimmet suggested that in this view knowledge about teaching is relativistic and is used to inform, rather than direct or control, practice.

Grimmet's (1989) final perspective of reflection is that of reconstructing experience. This process of reflection is viewed as engaging in conversation with situations or presuppositions and reframing or reconstructing past understanding to generate new appreciations of a practical situation. He proposed that reflection, from this perspective, serves as the way to reconstruct action situations, the self as teacher, and the taken-for-granted assumptions about teaching in an emancipatory interest.

Rather than approach perspectives of reflection through an understanding of the process, Zeichner and Tabachnick (1991) proposed four conceptions of reflection based on traditions of practice in teacher education. Zeichner and Tabachnick based their conceptions of teacher reflection primarily on what teachers reflect about and why.

The academic tradition of reflective teaching focuses reflection on the subject matter and the translation and representation of subject matter for student learning (Zeichner & Tabachnick, 1991). They linked this tradition's impact on teacher education to the recent work of Shulman (1987) and his colleagues.

The social efficiency tradition emphasizes the scientific study of teaching as the basis for teacher education curriculum (Zeichner & Tabachnick, 1991). In this tradition reflection is focused on the thoughtful application of teacher

strategies found in research on teaching. This tradition is reminiscent of Grimmet's (1989) instrumental perspective.

A third tradition of teacher education proposed by Zeichner and Tabachnick (1991) is the developmentalist tradition. Teacher reflection is oriented towards a consideration of the development of the learner as the basis for determining what is to be taught and how. Knowledge of students' current understandings and abilities are used to decide appropriate next steps. Zeichner and Tabachnick pointed out that in this tradition reflection is primarily focused on the student.

Finally, Zeichner and Tabachnick (1991) outlined the social reconstructionist tradition of reflection. Reflection in this tradition is centered on the social and political contexts of classroom actions and schooling in order to move towards greater social justice and humane conditions in society.

Facilitation of Reflection in Preservice Teacher Education

Recent studies have indicated that preservice teachers can learn to reflect and value the role of reflection in their lives as teachers (Goodman, 1991; Gore & Bartlett, 1987; Richert, 1990; Rovegno, 1992a; Sebren, 1989). Facilitating reflection in preservice teacher education centers around encouraging preservice teachers to engage in questioning and dialogue about teaching (Pugach & Johnson, 1990; Ross, 1990; Roth, 1989). Zeichner and Liston (1987) suggested that reflection occurs as four types of discourse: factual, prudential, justificatory, and critical.

> In short, factual discourse is concerned with what occurred in a teaching situation or with what will occur in the future. Prudential discourse revolves around suggestions of what to do or evaluations of what has been accomplished. Justificatory discourse focuses on the reasons employed when answering questions of the form, Why do this rather than that? And critical discourse assesses the adequacy of justifications offered for pedagogical activities and examines the values and assumptions embedded in the content of the curriculum and instructional practices. (p. 38)

Questioning is used to encourage preservice teachers to engage in all four types of reflective discourse. The use of questioning is also used to encourage preservice teachers to view problems from different viewpoints and to identify conditions or factors which may have not been considered (Pugach & Johnson, 1990; Ross, 1990).

The facilitation of reflection also involves encouraging preservice teachers to perceive "connections and links between parts of an experience" (Boud et al., 1985a, p. 25). Boud et al. emphasized the importance of connecting ideas and feelings from an original experience and the reflections upon that experience with pre-existing knowledge and attitudes. They suggested that as many associations as possible be made. Connection-making among new ideas and concepts and those of prior knowledge is a central feature of the learning process (Resnick, 1989; Strike & Posner, 1985). Ross (1990) suggested that questioning can be used to foster discussion of relationships among concepts and teaching experiences and to help preservice teachers learn to pose their own questions about teaching.

Dialogue is another means by which reflection can be facilitated. Richert (1990) found that putting feelings into words, expressing reactions to

experiences, clarifying vague conceptions, and pushing for greater depth of understanding were important outcomes of talking about teaching.

> The reflection conversation itself also enhanced reflection: by providing an opportunity for the teachers to articulate their thoughts and feelings about teaching, to become clearer, more thorough, better organized, and more focused. The 'give-and-take' of the reflection conversation, furthermore, provided the teachers an opportunity to become more serious in their analysis of classroom events and to delve deeper to achieve a sought-for understanding. (Richert, 1990, p. 521)

The benefits of engaging in reflective conversation underscore the need for teacher reflection to occur within an educative community in which participants honor what others know and depend on dialogue to develop and extend mutual understanding (Bullough & Gitlin, 1989).

The promotion of teacher reflection also involves the consideration of programmatic structures and conditions. In Richert's (1990) study, student teachers expressed that having adequate time for reflection was important for establishing rapport with reflection partners. Because reflecting on one's own teaching in a public forum involves a certain amount of risk, the establishment of an environment that is safe and supportive is a critical condition for the development of teacher reflection (K.C. Graham, 1991; Richert, 1990; Rovegno, 1992a; Sebren, 1989; Wildman & Niles, 1987). The safe environment is fundamental to the facilitation of dialogue and the reflective conversation.

An essential element in the establishment of a safe and supportive environment is providing for and encouraging teachers' self-determination of reflective focus (Boud et al., 1985b; Nolan & Huber, 1989; Wildman & Niles,

1987). Wildman and Niles found that teachers were initially uncomfortable with selecting their own focus for reflection and preferred that the researchers tell them what to look for. Eventually, the teachers became more able and willing to direct their attention to their own concerns about teaching and, subsequently, their attitude towards reflection began to change. Reflection became intensely personal and the teachers became active participants in the process of learning and change. Boud et al. stated that a key feature of self-reflection is the freedom to make a genuine choice rather than conform to the influence of authorities. The environment must be structured on the basis of equal power relationships among group members (Boud et al., 1985b). The willingness of teachers to determine their own focus for reflection may also be a function of the level of their dependence on authorities (Belenky et al., 1986).

Several studies have indicated that another critical aspect of the development of teacher reflection is the provision of adequate time for reflection (Korthagen, 1985; Pugach & Johnson, 1990; Richert, 1990; Wildman & Niles, 1987; Wildman, Niles, Magliaro, & McLaughlin, 1990). Korthagen questioned the benefits of practical teaching experiences in light of inadequate preparation for reflective teaching.

> For reflection, one needs time, and in general this time is not available during the first confrontation with classroom teaching. A reflective attitude should be developed before this confrontation. (p. 14)

Richert found that student teachers commented on the need to have adequate time to identify important issues and to delve into and discuss issues in a deep

and thorough way. Programmatic structures and conditions must allow for the time and patience required to develop reflective ability.

Finally, Boud et al. (1985a) and Korthagen (1988) pointed out that an important condition for fostering reflection involves the ability to match the learner's intent and readiness. Two fundamental approaches to learning have been identified for consideration in the facilitation of reflection. Boud et al. found that those who have a deep approach to learning tend to seek an understanding of what they are studying, relate new knowledge to prior knowledge and personal experience, form relationships between parts of knowledge, and search for meaning. Korthagen referred to individuals who learn via reflection as having an internal approach to learning. Surface approach learners, on the other hand, tend to memorize information, focus on requirements for examinations, and exhibit an attitude of unreflectiveness (Boud et al., 1985a). Similarly, Korthagen (1988) described external learners as individuals who prefer to learn through structure and guidelines provided from someone or something outside themselves. The amount of structure, types of questions, and focus of reflection need to be considered in light of the learner's priorities and way of knowing (Boud et al., 1985a; Korthagen, 1988; Sprinthall & Thies-Sprinthall, 1983).

CHAPTER III

CONTEXT OF THE STUDY

The purpose of this chapter is to describe the context in which this study was conducted. The important elements of the context for this study were those within which the preservice teachers reflected on their teaching. This chapter will focus specifically on a description of the methods course in which the preservice teachers were enrolled, the teaching field experiences built into the methods course, the reflection sessions which followed their teaching field experiences, and my role in the reflection sessions and as the researcher.

Methods Course and Teaching Field Experiences

The preservice teachers in this study were enrolled during the fall semester in a methods course called Teaching Elementary School Physical Education. The prerequisite for the elementary methods course was a course taught the previous semester which focused on the movement content of educational games, educational dance, and educational gymnastics (Logsdon et al., 1984). The elementary methods course was normally taken the semester following the secondary school physical education methods course and prior to student teaching.

Organization and Structure

The elementary methods course met Mondays, Wednesdays, and Fridays from 10:00 am to 12:00 noon on the university campus and at three different

local elementary schools. Twenty-two preservice teachers were enrolled in the class. At the university the class met in a classroom large enough to hold approximately 30 students. One side of the room was a window overlooking a teaching gymnasium below. In the front of the classroom were a blackboard and a table with a small wooden lectern at which the professor sometimes stood. The desks were usually scattered around the room facing front, rather than in rows. Occasionally, the class met in the teaching gymnasium for a more experiential review of classroom material.

When in the field for their teaching experiences, the class met off campus at three local elementary schools. The facilities for teaching at these elementary schools included outdoor space, activity rooms, or cleared auditoriums. At each elementary school a graduate student served as a site coordinator. The role of the site coordinator included scheduling elementary classes during the 10:00 am to 12:00 noon block. At two of the elementary schools, three elementary grades were scheduled during the methods course block, while only two grades could be scheduled at one school (see Table 1). The site coordinator served as the regular physical education teacher for those classes during the year and supervised the preservice teachers during their field experience visits. The professor of the course rotated from school to school during field experiences.

In the second week of the semester, the preservice teachers were divided into three groups and assigned to one of the elementary schools for the remainder of the semester (see Table 1). The seven participants in this study

Table 1

Field Experience Site Class Schedule and Number of Preservice Teachers Assigned

	Schedule		
School	Grade	Time	Number of Teachers (Participants)
A	K	10:00	7 (Bob, Kathy)
	1	10:40	
B	4	10:15	9 (Allison, Dawn,
	2	10:45	Rosco, Rusty)
	3	11:15	
C	5	10:00	6 (Chris)
	3	10:30	
	1	11:00	

were spread among all three elementary schools. The preservice teachers assigned to each school then divided themselves into small teaching groups of two or three. The members of each teaching group selected which grade they would be teaching for the first field experience. During the first half of the semester in which educational games was the focus, the teaching groups rotated to a new grade for each field experience. During the last half of the semester in which educational gymnastics was the focus, the preservice teachers in each teaching group selected and remained with the same grade throughout the educational gymnastics field experiences.

Field experiences consisted of three consecutive days at the school site. The semester schedule of field experiences and on-campus meetings is given in Table 2. The preservice teachers met at the university between field experiences a) to cover new course material, b) to review field experiences, and c) to meet in teaching groups to decide who would teach on which day of upcoming field experiences and collectively plan a three-day progression. Each preservice teacher taught at least one entire class for 30 minutes during each field experience visit. At elementary schools where there were fewer than nine preservice teachers assigned, some of the teachers co-taught on the third day of the field experience. On the days the preservice teachers were not scheduled to teach during the field experience, they completed observational assignments.

Orientation and Course Content

The overall orientation of the methods course could be described as within the social efficiency tradition in teacher education, that is, a focus on the

Table 2

Schedule of Elementary Methods Course On-Campus Meetings and Off-Campus Field Experiences

Dates	Location	Focus
Aug 24, 27, 29, 31	Campus	Introduction, Philosophy, Decision Making, Management
Sept. 3, 5, 7	Campus	Management, Assignment to schools, Lesson planning
Sept. 10, 12, 14	Schools	Management techniques
Sept. 17, 19, 21	Campus	Review field experiences, Educational games content, Plan for next lesson
Sept. 24, 26, 28	Schools	Teach educational games skills
Oct. 1	Campus	Review field experiences, Teaching strategies, Plan for next lesson
Oct. 3, 5, 8	Schools	Teach educational games skills
Oct. 12	Campus	Review field experiences, Teacher Effectiveness Program (TEP) and Observational Tool, Plan for next lesson
Oct. 17, 19, 24	Schools	Teach educational games skills, TEP observational tool
Oct. 22, 26	Campus	Review field experiences, Educational gymnastics content, Plan for next lesson

Dates	Location	Focus
Oct. 29, 31, Nov. 2	Schools	Teach educational gymnastics, Observational tool: teacher circulation
Nov. 5	Campus	Review field experiences, Feedback, Plan for next lesson
Nov. 7, 9, 12	Schools	Teach educational gymnastics, Feedback observational tool
Nov. 16	Campus	Review field experiences, Plan for next lesson
Nov. 19, 21, 26	Schools	Teach educational gymnastics
Nov. 28, 30	Campus	Review field experiences, Evaluation, Plan for evaluation experience
Dec. 3	Schools	Evaluation of educational games and gymnastics content
Dec. 5, 7, 10	Campus	Visit model school, Review field experiences, Review for final exam.

application of research on teaching (Zeichner & Tabachnick, 1991). The subject matter emphasized in the methods course was based on a human movement approach, rather than an activities approach (Barrett, 1988), and was rooted in the prerequisite course on the subject matter of physical education taught the previous spring semester. Selected chapters from the textbook (Physical education for children: A focus on the teaching process [Logsdon et al., 1984]) used in the prerequisite content course were also used as the content foundation in the elementary methods course. Many of the teaching strategies emphasized in the elementary methods course were linked to the secondary school methods course taught the previous semester, as were the two other textbooks required: Analysis of teaching physical education (Anderson, 1980) and Teaching physical education for learning (Rink, 1985)

The purpose of the methods course was stated on the course syllabus:

> The course focuses on the planning and organizing for teaching and observation of movement in children's physical education. Special emphasis is placed on philosophy, curriculum development, and selection of appropriate content for elementary students.

Course objectives included selecting and progressively organizing content, analyzing the teaching-learning process through observational techniques, selecting and developing appropriate content, developing logical teaching strategies, developing and evaluating daily lesson plans, and formulating a beginning philosophy about children's physical education.

The semester began and ended with an emphasis on the development of a philosophy about teaching and children's physical education. Throughout the

semester the professor occasionally encouraged the preservice teachers to review their underlying belief structure about teaching and children in relation to the current methods course topic.

The elementary methods course was conceptualized and organized around the image of the teacher as decision maker. The preservice teachers were provided a conceptual structure to guide their thinking about teaching decisions and how to make them. The underlying structure of teacher decision making was presented as a continuum of limited student choices to unlimited student choices (Rink, 1985). Three areas of decision making were covered throughout the semester: management, content, and teaching strategies.

Management decisions. Classroom management decisions were considered by the professor to be the foundation of effective teaching. These decisions included space, equipment, time, safety, grouping patterns, and behavior management. The preservice teachers were guided to consider and plan the management aspects of their field experience lessons through a structure of four areas of decisions: environment, equipment, space, and time. Throughout the course the professor pointed out the relationship between the preservice teachers' management decisions and their goals for the lesson, knowledge of the content, and knowledge of the children.

During the first teaching field experience the preservice teachers were directed to focus only on the management aspect of the lesson. Throughout the semester management decision making continued to be the central theme in the preservice teachers' planning and in the professor/preservice teacher

discourse. As the semester progressed, the professor particularly emphasized equipment management and behavior management as they seemed to be areas of struggle and concern for most of the preservice teachers in the class.

Content decisions. Attention was given to the selection of appropriate content, progression, and task presentation. The decisions related to the selection and progression of content were based on the conceptual structure of movement themes in the Logsdon et al. textbook (1984). The subject matter focus for the first half of the semester was educational games (i.e., chapter seven of the textbook; Barrett, 1984a) and for the second half of the semester was educational gymnastics (i.e., chapter eight of the textbook; Logsdon, 1984). The decisions related to task presentation were presented as Rink's (1985) conceptualization of the ways in which students can be given choices within the content dimension of tasks: a) alternative tasks, b) alternative conditions of performance, c) tasks with multiple correct response, and d) verbal problem solving through movement responses. The professor linked the decisions of content selection, progression, and task presentation to the preservice teachers' developing knowledge of the skills being taught and their knowledge of children. The professor also pointed out the connection between the appropriateness of content selection and task presentations and many of the management and behavioral problems with which the preservice teachers were struggling.

Teaching strategy decisions. Emphasis was placed on the aspects of instructional time, student behavior, instructional monitoring, teacher

circulation, and instructional feedback. Particular consideration was given to the types, specificity, and quality of instructional feedback. Types and purposes of feedback were presented and defined as dyads in a class lecture (i.e., evaluative/corrective, general/specific, class/individual, positive/negative, private/public, inappropriate/ appropriate, immediate/delayed, congruent/incongruent). The issue of when to provide which types of feedback was linked to the ability to observe.

Observational strategies, knowledge of the skill and knowledge of what to look for were stressed. The professor also emphasized that movement cues for observation and emphasis during the lesson be included on the written lesson plan. The provision of feedback was also linked to the preservice teachers' knowledge of the children and their level of skillfulness.

The culmination of the methods course was a field experience lesson designed to provide the preservice teachers with an experience of evaluating their students. Process and product measures, validity, reliability, feasibility, and meaningfulness were discussed and demonstrated in a practical experience in the university teaching gymnasium. The members of each teaching group then designed and delivered an evaluation of the content which they had taught throughout the semester. Emphasis was placed on the relationship between their evaluation decisions and the teaching decisions which had been made in the previous field experiences.

Learning Experiences and Assignments

The primary learning experiences during on-campus class meetings consisted of a) interactive class discussions, b) demonstrations and experiential lessons in the teaching gymnasium, c) observations and discussions of videotapes of contrived and actual lessons, and d) small-group lesson planning sessions. Learning experiences connected to the field experiences included a) lesson planning with an emphasis on management, content development, and observational focus; b) observational assignments and the use of observational tools designed to provide feedback to the preservice teachers about certain aspects of their lesson, c) supervisory conferences with the site coordinator or the professor following each field experience, and d) journal entries which focused on an evaluation of the last field experience in relation to past and current course material. Examinations included written quizzes, a midterm, and a final examination. The final exam also included viewing videotaped teaching episodes and responding to a series of questions related to the assessment of management decisions, tasks presentation, feedback, and decision making.

Reflection Sessions

Purpose

Reflection sessions were designed for the methods course specifically as a part of this study. Because the original design of the study was grounded in an interest on the nature and development of teacher reflection, the primary purpose of the reflection sessions was to provide a setting appropriate for

gathering data on preservice teachers' reflections on their own teaching. The reflection sessions were structured and conducted with the intent of providing an environment in which preservice teachers could look back on their field experiences, reconstruct and recapture what happened, examine the reasons underlying what happened, and generate alternative solutions and actions for future lessons (Shulman, 1987; Zeichner & Liston, 1987).

Organization

The organizational structure of the reflection sessions was based on a pilot study completed prior to the beginning of this study (Sebren, 1989). Reflection sessions were scheduled for one hour each week outside of regular class hours and were attended on a voluntary basis. Sessions began the fourth week of the semester and ended the week before final exams. The sessions were scheduled to meet on a weekly basis in an effort to provide as much time as possible for reflection (Korthagen, 1985; Richert, 1990).

The reflection sessions were held in a small classroom designed to hold approximately 15 students. The room was located in a seldom traveled portion of the building and provided a sense of privacy for the sessions. The 15 desks were arranged along the walls facing the center of the room. A small blackboard/bulletin board combination and a small table were in the front of the room.

All of the preservice teachers enrolled in the methods course were involved in weekly reflection sessions. I met only with the seven participants in this study. The participants divided themselves into two groups: one group

of three participants (all female) and one group of four participants (one female and three males).

In order to provide opportunities for reflection for all members of the course, the rest of the class met weekly with the site coordinators from their assigned elementary schools. Prior to the beginning of the semester, I conducted a 1 hour and 30 minute workshop with the site coordinators to discuss the purpose of the reflection sessions, the implications of reflection for teacher education, and strategies to encourage and enhance quality reflection with the preservice teachers (see Appendix A). No additional information or data concerning other reflection sessions were gathered as a part of this study.

My Role in the Reflection Sessions

Creating and maintaining the environment. The environment in which teachers are asked to reflect is considered to be an extremely important factor in their willingness and ability to reflect (Nolan & Huber, 1989; Richert, 1990; Rovegno, 1992a; Sebren, 1989; Wildman & Niles, 1987, Zeichner & Liston, 1987). Both the physical arrangements and the interpersonal conditions of the reflection sessions were given attention.

The small classroom which served as the site of the reflection sessions was chosen for several reasons. The room was located in an out-of-the-way part of the building to provide privacy, but was still in a convenient area on campus for the preservice teachers. Moreover, I felt it was important to meet in a smaller room to provide a different sense of closeness than would have been possible in a large room. Four or five desks were arranged in a small

circle at the front of the room near the table. I sat next to, but never behind, the table so that I would be a part of the circle. The table was used as a place to put the audiotape equipment, blank paper if needed, and any notes I had made concerning the ongoing data analysis. The door of the room was always closed during reflection sessions.

The interpersonal conditions of the reflection sessions were also given attention. The provision of an environment that is safe, supportive, and nonjudgmental has been discussed in the literature as an important element in the development of reflection (Nolan, 1989; Richert, 1990; Rovegno, 1992a; Sebren, 1989; Wildman & Niles, 1987). Privacy and confidentiality proved to be crucial elements of the reflection session environment in this study. After the first reflection session, a critical incident occurred in which a participant told another preservice teacher that his lesson had been "ripped" during the reflection session. The participants had been reflecting about the spatial organization of his lesson. Other participants became concerned about a lack of confidentiality and the possibility of misinformation being given to their peers in the methods course. This event threatened to undermine the very foundations of safety and trust upon which reflection is based. During the next reflection session, I reminded the participants that they were not to discuss what was said during a reflection session with others, and the participants discussed the reasons for such a policy in a group of this nature. The openness and willingness of the group to express their concerns served to prevent a recurrence of such an event.

Participants continued, however, to be concerned about the confidentiality of their remarks during reflection sessions. On several occasions a participant would preface a comment by saying "This isn't going to leave this room, right?". These comments often concerned their issues with or complaints about the teacher education program, the elementary methods course and the professor, the site coordinators, or other faculty in the department. The participants were reassured that no one except myself would hear or read the reflection session tapes and transcripts. On at least two occasions I deemed it best to turn the recorder off while the participant made what she or he considered to be a sensitive comment. Any statements made while the recorder was off were not used in the study in any way. The participants' willingness to discuss what they considered to be sensitive issues or complaints indicated that they had developed a sense of trust in me and in the other participants in the group.

In an effort to be as nonjudgmental as possible, I regularly reviewed my questions and responses to determine those incidents or areas in which I was being judgmental. My own reflection about my role in the reflection session helped me to be as consistent as possible, an important characteristic for the facilitator of critical thinking (Brookfield, 1987). I also made a concerted effort to be supportive and accepting of the prior knowledge and experience the participants brought to the group (Belenky et al., 1986; Schon, 1983, 1987). The preservice teachers' perceptions and understandings of teaching events in

their field experiences were accepted, although not always affirmed as appropriate or accurate.

Facilitating reflection. My primary role in the reflection sessions was to assist the participants in reflecting on their teaching. My intent was guided by the purpose of the reflection sessions as stated earlier. During the reflection sessions, the reflection process was focused primarily on the deliberation of competing views of teaching and the reconstruction of experience (Grimmet, 1989). My orientation towards the content of reflection could best be described as a combination of the academic and developmentalist traditions in teacher education (Zeichner & Tabachnick, 1991)

The focus of each reflection session was determined by the concerns, issues, and struggles of the participants (Wildman & Niles, 1987). The reflection session typically began with an open-ended question or statement designed to encourage the participants to relate whatever event or concern was foremost in their minds. These included such comments as "Tell me about your last lesson" or "What have you learned from your teaching this week?". As the semester progressed, the participants began to initiate the sessions themselves without waiting for me to ask a question. The participant's choice of event or concern was kept as the central focus as I utilized a variety of strategies to encourage them to reflect more deeply and broadly upon it.

My responses to the participants in the reflection session most often took the form of questions (Pugach & Johnson, 1990; Ross, 1990; Roth, 1989). I occasionally made statements or comments intended to direct the participants'

thinking to an aspect of the context that had been overlooked or seemingly misunderstood. Rarely did I provide answers to direct questions and, instead, became known for making them "figure it out for ourselves" (Rosco, Interview). My fundamental orientation to my role in the reflection session was to help the preservice teachers find their own answers through helping them learn to ask their own questions about themselves and their teaching (Ross, 1990). I also encouraged them to ask questions of and dialogue with each other during reflection sessions (Richert, 1990). As the semester progressed, they became increasingly able to continue the reflection session with less input from me.

In the first few reflection sessions, I paid particular attention to encouraging the participants to reconstruct their stories of what happened in greater detail. Wildman and Niles (1987) suggested that teachers' understanding may not be "rich and detailed enough to drive systematic reflection" (p. 26). The participants were asked to include as much information as possible about their actions and words during the lesson and their recollection of their thoughts, reasons, and feelings during and about the lesson. I asked them to articulate their original intentions and goals and their values and rationales underlying their goals and decisions. They were also encouraged to describe the students, the students' responses, and the environment in as much detail as they could. As their reflections became richer with detail, a broader array of information to reflect upon became available.

A central aspect of the reflective process in this study was the effort to encourage the preservice teachers to consider the many factors influencing

their planning and teaching. The primary concern of the participants was that of finding alternative solutions and actions to problems which arose in their field experiences. In other words, they wanted to know "what can I do?". A concern for the more technical aspects of teaching has been found to be a common orientation for preservice and beginning teachers (Behets, 1990; Fuller & Brown, 1975; Wedman, Martin, & Mahlios, 1990; Zeichner & Liston, 1987). In an effort to encourage reflection beyond a technical orientation, my typical response was to encourage them to examine the multiplicity of factors which may have influenced the teaching episode of their concern. Care was taken to guide them to explore factors related to themselves as teachers (e.g., intent, planning, decisions of organization and content, actions, voice, clarity, feelings) and to external influences (e.g., students' ability, environment, time of day, classroom teacher, school and social context).

One critical aspect of the reflection experiences designed for this study was an emphasis on encouraging the preservice teachers to elaborate their knowledge through focusing on alternative and multiple solutions and perspectives for the events of their lessons. From the perspective of cognitive psychology, learning takes place and expertise develops when relationships and connections are made among ideas and concepts within a cognitive structure, or schema (Harvey et al., 1961; Koplowitz, 1984; Pines, 1985; Rumelhart et al., 1988). The preservice teachers were asked to make connections among concepts they were learning and between those concepts and actions in the classroom.

For example, the preservice teachers were encouraged to find relationships between classroom events and their own decisions and actions within the lesson. Questions such as "How do you think your tasks were related to the children's behavior?" or "What did you do when you realized that the children weren't moving to catch and how do you think it affected your lesson?" were used. They were prompted to connect their decisions and actions within the lesson to their intentions, values, and goals, and to other relevant information gathered from the teaching context. The preservice teachers were also encouraged to consider alternative explanations (i.e., multiple perspectives) for events in their lessons, such as exploring aspects of their teaching from the children's perspective.

As a further explanatory basis, the participants were also encouraged to make connections between their knowledge base (i.e., motor learning, motor development, biomechanics, methods, sociology) and the events of their teaching. As much as possible I pointed out the patterns I perceived in their perceptions, concerns, and teaching. Eventually, alternative solutions and actions were compared and contrasted in light of the participants' intent and goals and their rationale based on their values and understanding of the situation.

My Role as the Researcher

Participant/Nonparticipant Dialectic

My role as the researcher was often one of a dialectic between being a participant and a nonparticipant. Throughout the study I frequently reflected

on the sense of tension I felt between these two roles. The role I occupied was determined by the context within which I was gathering data at the time.

My role as a participant in this study was directly related to my role as the facilitator of the reflection sessions. I was actively involved in the participants' experience of reflecting on and learning from their field experiences. My sense of my role as facilitator shifted over time during the semester of the study. I began the study with the intent of facilitating the reflection sessions primarily in order to gather data for a dissertation. As the semester progressed and I developed a stronger relationship with the participants, my intent began to include a deep sense of caring, concern, and responsibility for the quality of their experience.

The shift I sensed in myself was also affected by my growing commitment to the inclusion of reflection in teacher education. My belief that "we do not actually learn from experience as much as we learn from reflecting on experience" (Posner, 1985, p. 19) was being renewed and fortified in praxis. My commitment to reflection and my connection with the participants led me to become an active, caring participant in these preservice teachers' learning about and from their own teaching.

In contrast to my active participation in the reflection sessions was my role as a nonparticipant in the elementary methods course. I was not involved in any way in the organization or conduct (i.e., course material, groupings, assignments, evaluations) of the elementary methods course. During on-campus class meetings I attempted to remain as unobtrusive as possible. I sat

quietly next to the wall at the back of the class several rows from the nearest preservice teachers. It had been prearranged with the professor of the elementary methods course that I would not be actively involved in any way during class meetings. Occasionally the preservice teachers would attempt to draw me into their small-group discussions during class or would direct questions to me concerning the assignments. I redirected all of these attempts back to the professor or to their peers. It was my intent to maintain a posture as a nonparticipating observer of the class, not a participating member. I recognized, however, that there were instances in which the participants and other preservice teachers responded to me as a member of the class. This may have been a result of the relationship I had already established with these preservice teachers and my developing relationship with the participants in the reflection sessions.

During the field experiences the roles of participant and nonparticipant became more integrated. My intent during the actual time a participant was teaching was to remain a nonparticipant observer. I did not provide feedback or suggestions to the participants during their lessons as did the professor or site coordinator. Instead, I tried to be unobtrusive by sitting well away from the group of nonteaching preservice teachers when observing a participant and taking field notes. As in the on-campus class meetings, I redirected any questions concerning the course to the site coordinator, the professor, or peers.

My role tended to shift to that of a participant when I became involved with helping an individual participant reflect on his or her teaching.

Supervisory conferences immediately following the field experiences were observed and field notes were recorded. Although I was rarely involved in the supervisory conference, there were instances in which I interjected a question or thought with the intent of having the participant reflect on some aspect of her or his teaching. Following the supervisory conference, I occasionally remained with the participants for a few moments to facilitate their immediate reflection on their teaching. It was also common for the participants to approach me at the conclusion of their field experience to talk with me individually. My approach to the participant was consistent with the approach I used during the reflection sessions. Comments and questions which arose during these post field experience reflections were sometimes brought up again during the next reflection session.

My Relationship with the Participants

From the very beginning of the study I had a strong sense that the participants were open, honest, and trusting during our interactions. They were quite willing to engage in the risks of reflecting on their teaching and undertaking a critical view of their own actions, thoughts, and feelings. Another indication of the trust and openness of our relationship was the participants' willingness to disagree with me concerning my views about their teaching or my interpretation of their views. All of the participants disagreed with or questioned me at some time during the semester.

I also made myself very accessible to the participants during the study. It was common for the participants to approach me before and after class

meetings, reflection sessions, and field experiences, or in the hallway as I was walking through the building at other times. These impromptu conversations included personal sharing as well as professionally related topics. Our interactions began to include the tragedies, joys, and struggles of their lives, their goals and plans for their future, and their frustrations, anxieties, and complaints about the teacher education program and faculty. Likewise, the participants began to take an interest in my life and often asked about how the study was going, how I was doing, and my plans for the future.

The most difficult aspect of my relationship with the participants was the tension I occasionally felt between my role as a researcher and my growing sense of caring and responsibility for them as people and future teachers. I attempted as much as possible to frame my relationship with the participants as an observer and a facilitator of reflective thinking, rather than as the provider of my opinions and guidance as a teacher educator in their formal education. I was occasionally asked during the reflection sessions and field experiences for my opinion or for some indication of what I would do in their situation. While I generally redirected such questions back to the participant, there were times that I felt it was best to provide a direct answer. My decision to answer the participants with my own opinion was usually based on my perception of their struggle and their need for the structure of a concrete answer. On those occasions I felt that my relationship with the participants was more important than maintaining a detached role as a researcher.

CHAPTER IV

METHODOLOGY

Selection of the Interpretive Paradigm

Studies which reflect the interpretive paradigm are those in which the "meaning perspectives of the particular actors in the particular events" are the substantive focus of study (Erickson, 1986, p.121). Interpretive studies begin from the perspective that the setting under investigation is contextually bound, the realities of the people in the setting are multiple and constructed, there is an inseparable relationship between the knower and the known, and inquiry is always value-laden (Lincoln & Guba, 1985). These assumptions are the foundation of an emergent research design which provides a "thick description" of the setting and the perspectives of the participants in that setting (Geertz, 1973; Lincoln & Guba, 1985). This description is then interpreted in light of existing theoretical frameworks which resonate with the data as it emerges within the study (Glaser & Strauss, 1967; Lincoln & Guba, 1985).

The interpretive paradigm was selected for this study for two reasons. First, the assumptions upon which the interpretive paradigm rests resonate highly with my world view. The researcher's biography and world view is an important factor in interpretive data gathering and analysis because this paradigm acknowledges the primacy of the researcher as the human data-gathering instrument (Lincoln & Guba, 1985; Locke, 1989).

Second, the nature of the research question was also considered in the design of this project. Because the concept of reflection involves the dimension of interacting with a specific context, the interpretive paradigm was selected because it acknowledged the study of context as primary to the research (Goetz & Lecompte, 1984; Lincoln & Guba, 1985). Additionally, because the phenomenon of reflection is a wholistic endeavor bound by a myriad of factors (e.g., disposition, cognitive developmental level, knowledge base, environmental influences), the most appropriate paradigm to frame this research was one in which the study of the explicit and tacit dimensions of the whole was considered primary (Lincoln & Guba, 1985). Lastly, this study was concerned with understanding the meaning-perspectives of the participants as they reflected on their teaching experiences. It was imperative that a paradigm be selected which allowed for the emergence of theory grounded in the data constructed as a result of the study, rather than one which mandated an a priori theory which would potentially negate the capture of the actual perspectives of the participants (Erickson, 1986; Glaser & Strauss, 1967; Lincoln & Guba, 1985).

Selection of the Setting

A field-based teaching methods course for elementary school physical education was selected as the setting for this study. A field-based course was selected in order to insure the study of preservice teachers' reflections on teaching children, rather than teaching peers. The selected methods course

also provided an opportunity to study what preservice physical education teachers were learning about teaching prior to their student teaching.

My own interest and expertise in the content and methods of elementary school physical education also influenced the selection of this setting. Lofland and Lofland (1984) believe that the interests and concerns of the researcher are the "starting point" for meaningful naturalistic research. The orientation towards the subject matter of physical education in the elementary methods course was representative of a skill, or human movement, orientation rather than an activities orientation (Barrett, 1988). A skill orientation is most closely aligned with my own perspective towards and expertise in elementary school physical education. My understanding and insight into the orientation of the elementary methods course provided a foundation for the establishment of rapport with participants and for the interpretation of data. It also served to foster my own growth as a teacher educator within an environment that matched my background and preferences.

The site was also chosen on the basis of my background knowledge of the teacher education program and the students enrolled in this methods course. My familiarity with the professional preparation courses offered in this program afforded additional insight into this setting. Furthermore, I had been the instructor of the prerequisite course emphasizing the subject matter of elementary school physical education. Subject matter is a critical part of the knowledge base for teaching and was a central focus in the elementary methods course. My understanding of the content of the prerequisite course served to

enhance my ability to facilitate their reflections and enriched my interpretation of the data.

Moreover, the rapport and familiarity that I had established with the students who were enrolled in this methods course was a critical factor in their willingness to engage in the risks of reflecting on their own learning and teaching. As rapport and relationship were established and maintained, they not only served to foster reflection but also augmented the gathering of rich data.

To ensure that my position as prior instructor had minimum impact, this study was not mentioned to the participants until the beginning of the semester in which the study took place. At that time I was no longer in a position of authority concerning their grades. My participation in the methods course was solely as a researcher, and I was not involved in any way in the design of the methods course, in their assignments or evaluations, or in decisions related to their grade in the course.

Selection of the Participants

On the first day of classes, the entire class of 22 preservice teachers was verbally informed of the purpose of the study, the methodologies that would be used, the nature and extent of the participation being requested, and any risks involved. The procedures to be used to maintain confidentiality and anonymity were explained and they were assured of their rights to review the data and my interpretations and to withdraw from the study at any time without negative consequences. I also explained that I was primarily interested in

those preservice teachers who expressly intended to teach elementary school physical education in their student teaching or beyond.

Following that class session, a meeting was scheduled with 10 preservice teachers who expressed an interest in participating in the study. At that meeting I reviewed and expanded all of the information given on the first day of class, read the written consent form with them, and answered questions (see Appendix B). Seven preservice teachers agreed to participate in the study. The participants included three males and four females. They ranged in age from 22 years to 28 years. All of the participant names used in this study are pseudonyms.

Data Sources

Five sources of data were used on the basis of their potential to provide insight into the reflections of the preservice teachers in this study. These were the audiotaped reflection sessions, interviews, nonparticipant observations, documents, and the researcher's journal.

Audiotaped Reflection Sessions

Each weekly reflection session was audiotaped with the consent of the participants. Since participation was voluntary, one group met 12 times and one group met 8 times (see Table 3). Participation tended to wane around midterm and final exam times. About one third of the 20 reflection session tapes were transcribed by the end of the semester of the methods course. The remainder of the tapes were transcribed during the following semester.

Table 3

Number and Dates of Reflection Sessions Per Group

Week of Semester	Bob, Chris Rosco, Rusty	Allison, Dawn Kathy
Aug. 20 - 24	Orientation To The Study	
Aug. 27 - 31	"	
Sept. 3 - 7	"	
Sept. 10 - 14	X	X
Sept. 17 - 21	X	X
Sept. 24 - 28	X	X
Oct. 1 - 5	X	X
Oct. 8 - 12	X	
Oct. 15 - 19		X
Oct. 22 - 26	X	
Oct. 29 - Nov. 2	X	
Nov. 5 - 9	X	X
Nov. 12 - 16	X	X
Nov. 19 - 23	X	X
Nov. 26 - 30	X	
Dec. 3 - 7	X	
Dec. 10 - 14	Exams	
Dec. 17 - 21	"	
Total	12	8

Interviews

Each participant was formally interviewed three times during the semester. Each interview took place with the participant individually, rather than in groups, with each interview lasting approximately one hour in length. The interviews were temporally spaced so that they were conducted in the early part of the semester, near the middle of the semester, and at the end of the semester (see Table 4). A semi-structured format was used and each interview focus was based on the emergent data analysis. Each interview was audiotaped with the consent of the participant. All of the first interviews and half of the second interviews were transcribed during the semester of data collection. The transcriptions of the remainder of the 21 interviews were completed the following semester.

A fourth formal interview was conducted during the final two weeks of the following spring semester. Prior to this interview, my interpretations of the analyzed data were returned to each participant for review. Six of the seven participants were involved in student teaching at that time. The final interview was intended to serve as a member check and was primarily focused on the interpretations of the data that had been returned to them.

Several informal interviews occurred as a result of the consistent engagement that I had with the participants. These brief conversations took place primarily before or after class meetings, field experiences, or reflection sessions. Field notes concerning the substance of these conversations were recorded as soon as possible after their occurrence.

Table 4

Dates of Data Collection by Interview

	Interview			
Participant	First	Second	Third	Fourth
Allison	Sept. 5	Oct. 23	Dec. 3	April 22
Bob	Sept. 6	Oct. 18	Dec. 4	April 23
Chris	Sept. 6	Oct. 17	Dec. 3	April 23
Dawn	Sept. 5	Oct. 22	Dec. 11	April 24
Kathy	Sept.13	Oct. 31	Dec. 6	April 22
Rosco	Sept.10	Oct. 18	Dec. 11	April 25
Rusty	Sept. 7	Oct. 17	Nov.28	April 25

Nonparticipant Observation

I regularly attended all of the methods course class meetings in order to gather additional contextual information. Field notes were taken during each class meeting. Particular attention was paid to the course material being taught and any class discussions which involved the participants in this study.

Participants' field experiences were observed as often as possible and field notes were recorded (see Table 5). When I was unable to observe a field experience in person, videotapes of the participant's teaching experiences were gathered if they were available. Some participants were observed more often than others because of scheduling conflicts among the three teaching sites or because of canceled classes. Table 5 includes observations of available videotapes for some participants.

During these observations I focused primarily on three areas: a) the statements and tasks given by the participant, b) the children's responses, and c) the participant's response to the children. Information was also recorded concerning certain teacher behaviors. These data served to establish a common ground of understanding between me and the participants as they reflected on the concrete events of their field experiences.

Relevant Documents

A fourth data source was the written work generated by the participants. These documents included tests, lesson plans, and journals from teaching field experiences. The participants' journals included their written

Table 5

Number of Nonparticipant Observations of Field Experiences

	Games Lessons		Gymnastics Lessons		
Participant	#	Dates	#	Dates	Total
Allison	2	Sept. 14 Oct. 3	3	Oct. 31 Nov. 12 Nov. 19	5
Bob	2	Sept. 12 Oct. 19	2	Nov. 2* Nov. 26	4
Chris	4	Sept. 12 Sept. 28 Oct. 3 Oct. 24	3	Oct. 29 Nov. 9 Nov. 21*	7
Dawn	1	Sept. 28	2	Nov. 2 Nov. 9	3
Kathy	2	Sept. 26 Oct. 5	2	Oct. 31* Nov. 21	4
Rosco	3	Sept. 24 Oct. 3 Oct. 17	3	Oct. 29 Nov. 12 Nov. 19	6
Rusty	2	Sept. 14 Oct. 7	3	Oct. 31 Nov. 9 Nov. 26	5
Total	17		18		35

Note. Asterisk (*) indicates observation of videotape.

philosophies of teaching children's physical education and their field experience lesson evaluations. Documents were gathered as soon as possible after the professor of the elementary methods course had completed reading and evaluating them.

Researcher's Journal

A researcher's journal was maintained throughout the course of this study in order to record my own thoughts and feelings about the research process, any critical incidents, and initial interpretations following reflection sessions, observations, and interviews. The journal also provided a record of the research decisions that were made in light of emerging data analysis and literature review (Lincoln & Guba, 1985).

Trustworthiness of the Study

Studies undertaken in the interpretive paradigm leave it up to the reader to find a "ring of truth", or a resonance, with the study (Locke, 1989). That resonance depends on the researcher's having provided for the reader a "thick description" (Geertz, 1973) of the context to assist in transferability, and a communication from the researcher concerning certain aspects of the research in order to establish credibility, dependability, and confirmability (Lincoln & Guba, 1985). To address the issue of trustworthiness in this study, the following techniques proposed by Lincoln and Guba were used:

Triangulation

Triangulation is the comparison of categories, themes, and patterns across different data sources and participants for the purpose of establishing

consistency among the data (Glaser & Strauss, 1967; Goetz & Lecompte, 1984; Lincoln & Guba, 1985). Triangulation in this study was conducted by searching for indications that themes were emerging across the data sources (i.e., audiotaped reflection sessions, interviews, nonparticipant observations, documents, and my own journal). Similarly, the data from each participant were compared to other participants to search for corresponding themes. Categories and themes which emerged early in the semester were also compared with those that emerged late in the semester.

Prolonged Engagement

Lincoln and Guba (1985) refer to prolonged engagement as a technique which insures that the researcher has had sufficient time in the setting to learn the context, to determine potential misinformation, and to build trust. The criterion of prolonged engagement in this study was met on the basis of my previous rapport and familiarity with these students as their instructor, my knowledge of the setting, and the frequent and consistent interaction I had with the participants throughout the semester of data collection.

Member Checks

The purpose of the member check is to insure that the data, analytic categories, and interpretations are consistent with the actual meaning-perspectives of the participants (Erickson, 1986; Lincoln & Guba, 1985). Member checks took place continually, both formally and informally, throughout the study. Informal member checks occurred when it was deemed appropriate to have a participant review certain data or data analysis. A

formal member check was conducted after data collection, analysis, and interpretation were completed.

Negative Case Analysis

Negative case analysis is the search for disconfirming evidence in regard to tentative themes, categories, and patterns (Erickson, 1986; Lincoln & Guba, 1985). The consistent search for disconfirming evidence provides the researcher with the potential for different or broader interpretations. As the data in this study were analyzed and themes and patterns generated, the data were reviewed for the purpose of finding evidence that did not support the theorized themes and patterns. Categories and interpretations were modified as necessary in light of any disconfirming evidence uncovered.

Researcher's Journal

Significant research decisions that were made as the data were analyzed and any information that indicated the need for modification, additions, or deletions of portions of the original research proposal were recorded in the researcher's journal. The researcher's journal also served as a tool for personal reflection concerning my role in the study, my relationship with the participants, and my changing interests.

Data Analysis

An essential element in the concept of the emergent research design is an ongoing process of data analysis which begins immediately upon data collection (Lincoln & Guba, 1985; Locke, 1989; Lofland & Lofland, 1984). The

data were analyzed as soon as possible after each data collection. Early data analysis was primarily in the form of theorizing:

> Theorizing is the generic mode of thinking, upon which all analysis is built: perceiving, comparing, contrasting, aggregating, and ordering; establishing linkages and relationships; and speculating. (Goetz & LeCompte, 1984, p. 167)

From this mode of thinking, tentative patterns and categories were generated by constantly comparing units of the data in order to define clearly the boundaries of each category (Glaser & Strauss, 1967). The ongoing data analysis guided my focus, questions, and interpretations during subsequent data collections.

As theorizing continued and the data were read and read again, themes began to emerge which were consistent within and across participants. The initial patterns and categories began to change shape as they were interpreted in relation to one another, to further data review, and to the relevant literature. Categories were either strengthened, integrated, or considered less significant in this setting and not explored further. Final data analysis was initially focused on solidifying the consistent themes which emerged within each participant. Further analysis was conducted with the intent of establishing relationships among themes across participants. A theme was determined as salient for the results of the study if a) it occurred in the data analysis of all or most of the participants and b) it was a striking and distinctive focus or concern of an individual participant.

Evolution of the Research Questions

This study was initially designed to gain insight into the nature and development of the reflections of preservice physical education teachers during an elementary school physical education methods course. The following questions served as the initial focus:

1. What process do preservice physical education teachers use to reflect? Is the process of reflection developmental?

2. What are preservice physical education teachers' attitudes towards reflecting on their teaching?

3. What is the content of preservice physical education teachers' reflections? What do they choose as a focus for their reflections (i.e., what do they reflect about)?

4. What is the role of preservice teachers' autobiographies and methods course experiences in the establishment and development of reflective ability? How do autobiographies and past experiences influence the process of reflection, the disposition to reflect, and the content of reflection?

I developed an interest in these questions during a pilot program designed to encourage reflection in a methods course. As a result of my experience with the pilot program and the individual case study I conducted that semester (Sebren, 1989), the process of reflection became my primary interest. The question about process dealt primarily with the development of the structures and strategies of reflection (Cruickshank, 1987; Nolan & Huber, 1989; Ross, 1989; Roth, 1989; Zeichner & Liston, 1987) and the myriad of

perspectives of reflection (Grimmet, 1989; Van Manen, 1977). This question was theoretically grounded in a cognitive developmental perspective.

Because the preservice teachers in the pilot program displayed a variety of attitudes about reflection, the disposition towards reflection also became an important focus in the design of this study. This question was primarily concerned with the participants' eagerness or resistance towards reflecting on their teaching. Research on teacher reflection has indicated that factors such as autonomy (Nolan & Huber, 1989; Wildman & Niles, 1987), competence (Calderhead, 1989), and a safe and encouraging environment (K.C. Graham, 1991; Richert, 1990; Rovegno, 1992a; Sebren, 1989; Wildman & Niles, 1987) affect teachers' attitudes towards reflection. Additionally, the pilot case study indicated that the participant's past experiences with reflection influenced her willingness and ability to engage in reflection (Sebren, 1989). For that reason autobiographical dimensions were initially included in the study.

In the initial design of the study, it was assumed that the substance and focus of reflection would be the concrete episodes and events of teaching, or in Van Manen's (1977) terms, the practical. Several studies suggest that the development of reflective ability in preservice teachers is difficult because they lack a substantive knowledge base and background of experience to draw upon in their reflections (Bullough, 1989; Calderhead, 1989; Ross, 1989; Roth, 1989; Wildman & Niles, 1987; Zeichner & Liston, 1987). The content of reflection was included as a research focus in order to gain insight into the relationship

between the developing knowledge base of preservice teachers and their ability and willingness to reflect.

These original questions provided the framework for data collection early in the study. Initial data collection was conducted with the intent to a) establish and maintain rapport and relationship with the participants, b) establish and maintain an environment conducive to reflection, c) facilitate the participants' reflections on their teaching, and d) ask the participants about their definition of, attitude towards, and process of reflecting.

After the first few weeks of the study, analysis of the data indicated that the disposition towards reflection was not a salient issue for this group of participants. All of the participants in this study were quite eager to engage in reflecting on their teaching. Thus, questions concerning the participants' attitudes towards reflection were discontinued during subsequent data gathering and analysis.

In contrast to the pilot study results, the data analysis also indicated that the participants had not made any connections between their prior teaching and learning experiences and their present ability or willingness to reflect. Therefore, the initial data analysis (i.e., three reflection sessions per group, first interview, field notes, documents) led to the decision to narrow the focus of the study to the process and content of reflection (i.e., original questions one and three). Although the collection of autobiographical data continued as a part of facilitating the participants' reflections, it did not emerge as a significant factor in later data analysis.

The next notable shift in the evolution of the research questions occurred during the last half of the semester following the second interview. On several occasions prior to the third interview, I noted in my journal that the categories and patterns which had emerged were divisions related to the content of the participants' reflections rather than the process of reflection. This realization was a significant moment during the research process. The focus of the third interview demonstrated a shift in research interest, although the evolution of that shift was still largely unconscious at the time. The third interview was guided by the following questions:

1. What were the preservice teachers learning about the content of physical education, about classroom management, about how children learn, and about themselves as teachers?

2. How was that learning changing over time?

3. How had the reflection sessions influenced them and their learning during the semester? How was their thinking about their own teaching different?

As a result of the realization that my lens of interest and interpretation was changing, I began an introspective examination (which continued throughout the remainder of the data analysis and interpretation) of my developing views, beliefs, and attitudes towards my research in order to better understand the source of my categorization of the data. This introspection led to a greater awareness of the influence of the research process on myself as the human data-gathering instrument:

> within the naturalistic paradigm, designs must be emergent rather than preordinate: because meaning is determined by context to such a great extent; because the existence of multiple realities constrains the development of a design based on only one (the investigator's) construction; because what will be learned at a site is always dependent on the interaction between investigator and context, and the interaction is also not fully predictable; and because the nature of mutual shapings cannot be known until they are witnessed. All of these factors underscore the indeterminacy under which the naturalistic inquirer functions; the design must therefore be "played by ear"; it must unfold, cascade, roll, emerge. (Lincoln & Guba, 1985, pp. 208-209; emphasis in original)

My research interests and views of reflection were shaped in praxis by my engagement with the participants, the analysis of the data, and the relevant literature. One particularly important discovery concerned my role as the facilitator of the reflection sessions. I had paid particular attention to the substance of the participants' reflections in order to best facilitate their reflection about and learning from their field experiences. As I continued to analyze the data, read the literature, and interact with the participants throughout the semester, it became clearer to me that the participants' major concern was learning to teach, not learning to reflect on teaching. In the context of their situation, they were using reflection as a means of learning and becoming better teachers.

Thus, in response to my connection with the participants' meaning perspectives, it was the content of their reflections that stirred my excitement in the research. My research interest had shifted from viewing the process of reflection as an end to viewing reflection as a means of gaining insight into what these preservice teachers were learning about teaching.

During data analysis following the completion of data collection and transcription, there was an intentional effort to re-interpret the data from the perspective of the process of reflection. The purpose of this analysis was to exhaust the possible categorization of the data. After some time of analyzing the data from the perspective of both process and content, I was comfortable that the most comprehensive, integrated, and meaningful themes were those related to the content of the participants' reflections. The study was eventually limited to a focus on the content of the preservice teachers' reflections. The research questions were revised as follows:

1. What were the preservice teachers learning about the content of physical education, about classroom management, about how children learn, and about themselves as teachers?

2. How did that learning change over time?

3. How were the preservice teachers' perspectives, concerns, and cognitive developmental levels associated with their changes and growth throughout the semester?

4. How did the reflection sessions influence the preservice teachers' development during the semester?

After the study had been refocused, a more thorough data analysis continued with only those portions of the data relevant to the revised research questions.

Organization of the Results Chapters

As a result of data analysis, the preservice teachers were divided into two groups based on their orientation towards teaching and their changes or

growth throughout the semester. The groupings based on data analysis are not identical to the reflection session groups. Chapter V describes the changes in orientation towards teaching of Allison, Dawn, and Bob, the first group of preservice teachers. These three preservice teachers began the semester focused on classroom control and evolved towards a greater concern for teaching for learning. Chapter VI describes the growth of Chris, Kathy, Rosco, and Rusty, the second group of preservice teachers. These four preservice teachers began the semester concerned about teaching for learning and continued to grow within that orientation throughout the semester.

CHAPTER V

TRANSFORMATION IN ORIENTATION: FROM TEACHING AS CONTROL TO TEACHING FOR LEARNING

Orientation Towards Teaching as Control

The preservice teachers in this group began the semester predominately focused on and concerned about "control" in their field experience lessons. Two interactive themes emerged which were descriptive of their orientation towards teaching as control. First, the preservice teachers attributed importance to classroom control for reasons related to self rather than reasons related to learning. The second theme represents indications of the absence of teaching for learning, rather than the preservice teachers' overt focus on control. The preservice teachers in this group began the semester without a comprehensive image of the subject matter (i.e., the movement content). Their disconnected vision of the movement content left them initially unable to situate their lesson content within an appropriate progression, nor were they able to design and give tasks based on expectations of what the children's movement responses should look like.

Classroom Control Important for Reasons Related to Self

"I couldn't stand the feeling of being out of control" (Dawn, Interview). The preservice teachers' discomfort with the feeling of being out of control was largely the driving force behind their desire and struggle to get control. One

aspect of their discomfort was their tendency to attribute responsibility for problems with classroom control to the children, rather than to themselves. The children were blamed for "giving" them "trouble, the problems" and "a hard time". They believed the children were trying "to get away with what they can". One teacher even referred to the children as "terror" in the classroom.

A second manifestation of their discomfort with the feeling of being out of control was the impact that feeling had on their confidence. The need to feel more confident was often the very basis of their urge to get control.

> Allison: I didn't have any confidence. And I think the kids can pick up on that...I feel like if I had more confidence that I might could have more control.
>
> Ann: Why is having control important?
>
> Allison: If I don't have confidence, they can tell. It's in my voice, and they can pick up on it...Like Dawn said, they think you are more of a, they can get away with more and everything. That is why I am more concerned about it, because I need to build my confidence up...So I will be more of a, you know, have more authority. So they will listen to me...I want them to take me seriously...I just need to build my confidence up. I think that is the main reason I always say that [I need more control]. (Allison, Interview)

The preservice teachers' struggle to develop confidence and feel they were being taken seriously was linked to their view of themselves as an authority. When commenting on her students' misbehavior, Dawn said:

> I should be stopping it to gain their respect and the authority that I need to work with my class the way I want it to run. (Dawn, Reflection Session)

Goodman (1988) found that having authority over the children was one aspect of preservice teachers' perspective of teaching as a problem of control. In Goodman's study, the preservice teachers struggled with not being "seen as 'the teacher' in the eyes of their pupils" (p. 125). Similar to the teachers in Goodman's study, to Allison, Dawn, and Bob having authority meant that students would comply with the teacher's directions.

> I really wanted to be the King Honcho out there and have everyone jump when I told them to. (Bob, Interview)
>
> My concern was just having control in general...It wasn't really worrying that I didn't get to teach what I wanted...It was, like, I felt like I was the teacher and they were the students and they weren't supposed to be running the class, I was. That was my biggest concern...You are thinking if they are not doing exactly what I want every single minute of this class, then I'm not doing what I'm supposed to be doing. And you get really stressed out about it. (Dawn, Interview)

Given the way these preservice teachers understood teaching as having control and authority, they often viewed the children as "testing" and "challenging" their control in the classroom.

> Once I started the lesson, the students started to test my authority...I couldn't stand the feeling of being out of control. (Dawn, Journal)

In one instance, the children were viewed as "testing" the teacher's authority when they did not perform the skill of tossing and catching with a guard (i.e., a small version of keep away) as well as she thought they should have.

> It just, the control element...They were so distracted that day, and weren't on task. They weren't doing it as well as they could, and to me, that is like testing my authority...(Dawn, Reflection Session)

In Dawn's view, it was the children who "ruined" that lesson for her because of their misbehavior.

> I pulled them in and said today could have been a lot of fun, but I didn't really have a lot of fun...Y'all kinda ruined it for me. I hope in the future you don't do this to people because we are coming out here to learn how to teach and stuff. (Dawn, Reflection Session)

Physical education student teachers have been found to have a diminished sense of responsibility for pupil learning and behavior (Fernandez-Balboa, 1991; Placek, 1983; Schempp, 1986). Fernandez-Balboa, in particular, found that a "common belief held by the student teachers was that pupils are the ones to blame for misbehaviors" (p. 65). The reflections of the preservice teachers in this study indicated that they thought student misbehavior occurred as a result of the willful misconduct of the children rather than the teachers' actions and decisions within the lesson.

Shaver (1985) suggested that blame, an external attribution of responsibility, is thought to be given when the perceiver assumes that the recipient of blame had agency, intent, and foreknowledge of the consequences. Blame is also attributed externally when individuals need to place blame on someone else because of their own desire to avoid accepting responsibility or placing blame on themselves (Shaver, 1985). As a result of these preservice teachers' belief that the children acted intentionally and their inability to accept their own responsibility for the events of their lessons, they often felt personally confronted by the children (Fernandez-Balboa, 1991).

When the children did not comply in the way the teachers thought they should and would, it often left the preservice teachers feeling that they were not an authority. Their sense of not having control during their classes was partly linked to their lack of comfort in the role of authority and their belief that they did not possess the characteristics of someone who was an authority. Even when Allison described a lesson in which she felt she had gained more control in her class, being an authority "wasn't normal, that is not me". In Dawn's case, she frequently expressed the belief that if someone else with more authority had taught her class, there would not have been a problem with controlling the students.

> If the site coordinator or somebody had, someone who had more authority...had been teaching the same lesson...they might have commanded more respect (Dawn, Reflection Session)

In Dawn's eyes, classroom control was a function of authority and compliance rather than experience or better teaching skills.

Not seeing themselves as an authority left them quite concerned about what others they perceived as authorities expected from them. They attributed their consuming focus on the issue of control partly to the fact that those who were evaluating them valued control.

> We need to work on classroom management and space and organization and stuff. We are basing the success of our lesson not so much on...the kids becoming more skillful, but whether or not we have managed that class and we haven't had many discipline problems and did they listen to us...That is what we have been concentrating on...It is not that we are thinking of the kids anymore, we are thinking of ourselves and we are

> thinking of the way we are being graded, just the way kids do. (Dawn, Interview)

Allison, in particular, believed that control in her class was important largely because her "teacher" told her it was important.

> I think one reason I always talk about that [control] is that Dr. Campbell stresses that we need to nip it before it gets any further. That is one of his main things, right there...He does studies on teachers, doesn't he? He observes them? He knows, he is my teacher, he knows a lot more than I know and he is here to teach us. One of the main things he stresses...he says stop it right at the beginning...I think that is one reason I have been so concerned with it. (Allison, Interview)

Because these preservice teachers were struggling with their own sense of confidence and authority, it was not yet possible for them to consider more internal reasons for the events of their lessons. Their removal of themselves as part of the classroom context is reminiscent of the characteristics of more received knowers who do not yet include the self in the thinking process and the construction of knowledge (Belenky et al., 1986; Labouvie-Vief, 1984; Blanchard-Fields, 1989). As a result, received knowers become dependent upon those they perceive as authorities as their source of right and truthful information (Belenky et al., 1986; Kitchener et al., 1989). The preservice teachers in this group exhibited the orientation of "authority-right-they" (Belenky et al., 1986, p. 44) in their concern about their professor's and site coordinator's evaluations of their ability to control the classroom. Fuller and Brown (1975) suggested that novice teachers are quite concerned about evaluations by their supervisors. It is likely that the early teaching concerns

about classroom control and external evaluations are related to the inability of novice teachers to view themselves as the constructors of their own teaching knowledge.

When preservice teachers do not see themselves as part of the classroom context and attribute responsibility for student learning, failure, and misbehavior to external factors, they are left feeling as if they are at the mercy of classroom conditions which are out of their control. Without a sense of their own agency, action, and ability to construct knowledge in the classroom, this group of preservice teachers could only react to situations rather than initiate preventive action (Fernandez-Balboa, 1991).

Disconnected Image of the Subject Matter

Throughout most of the semester, these preservice teachers expressed a pervasive inability to define and construct for themselves what they wanted with respect to the subject matter of their lessons. The preservice teachers' comments about not knowing what they wanted were another way of saying that they were struggling with an inability to identify and create a coherent image of what they were teaching.

> It was hard for me when I didn't know what I was to teach and how I was going to teach it. That made it hard. I was unclear about what I wanted. How can you teach somebody something when you are unclear yourself...? You really have to know what you are going to teach before you go in there, you can't just wing it. At least I can't. (Allison, Interview)

Their disconnected image of the subject matter primarily manifested itself in two ways. First, these preservice teachers had no mental picture, or

visual representation, of what the movement content they were teaching should look like in the responses of the children.

> I need to learn what I'm looking for. A lot of times, you know, I go out there and I don't really know what I'm looking for. I need to be, before I go out there, I need to think about it more and I need to decide exactly what it is that I'm wanting to see...I want to be a teacher that knows what I want, what I'm looking for...(Allison, Interview)
>
> ...I didn't know what I wanted to see. Did I want them to just finish the lesson? Did I want to see skillful movement? Did I want them to behave well? It varied from day to day. No, I didn't. You should have that clear focus for every lesson you teach. Mine kinda changed with the moods! (Dawn, Interview)

Second, through reflecting on their rationales for their selection of content and tasks for their field experience lessons, all three of these preservice teachers discovered that they had planned the majority of their lessons without considering where the content was going in future lessons.

> I just wanted to get that day over with and teach them as much that day as I could. And I didn't care if they ever used it again or not. (Bob, Interview)
>
> We were just kinda throwing skills at the kids. We weren't really teaching them a game (Dawn, Interview)

Their lack of a mental picture of what the movement should look like and their lack of an image of where the subject matter was going affected the manner in which they selected content and designed tasks for their lessons. Their reflections on their selection of content for their field experience lessons indicated that they tended to select content on the basis of two primary rationales. Content was selected because it was new or because it was in the

written resources they were using to plan, not because of its relation to the children's demonstration of fundamental and prerequisite skillfulness. Although they did not plan with regard for future lessons, the preservice teachers in this group often did plan with the intent of "being in progression" by making every lesson and task harder than the one before. Similar to the inservice teachers in Werner and Rink's (1989) study, the progression in Allison's, Dawn's, and Bob's lessons "continued in difficulty regardless of the development of skill in basic experiences" (p. 284).

The manner in which the preservice teachers designed the structure of their tasks (i.e., the degree of opportunity for student decision making) for their field experience lessons was also affected (Barrett, 1984b). Because the preservice teachers were struggling with a disconnected image of the movement content, they frequently designed tasks with an unlimited structure (i.e., maximum student decision making) as opposed to a limited structure (i.e., minimum student decision making) (Rink, 1985). Throughout most of the semester, the preservice teachers found that the children had difficulty responding to the movement tasks they planned for their field experience lessons since their tasks were often not clear and were often unlimited with respect to student decision making.

> I remember the lesson before I taught rocking. I just told them to balance. I didn't say what body part...I gave them WAY too many choices. I didn't be specific and tell them what to balance on or how many body parts or anything. (Allison, Interview)

> Like my first lesson, I gave them entirely too much decision making and it went entirely over their head. They just could not comprehend all that. (Bob, Reflection Session)

It is likely that the preservice teachers' tendency to plan and give tasks with an unlimited structure was because they did not know what they were looking for in the children's movement responses. Consequently, they planned and continued in progression without regard for the prerequisite skill level necessary for the children to respond to more indirect or open tasks.

The best example of the preservice teachers' struggle with their disconnected image of the subject matter occurred midway through the semester. The methods class was in the second week of teaching educational gymnastics. Allison's teaching group was responsible for the second grade and she was to be the third teacher in her group to teach that week.

When planning for this gymnastics field experience, Allison made an explicit attempt to connect her lesson to the two previous lessons. The two previous lessons had focused on the movement content of body shapes (curling, twisting, stretching) and balancing on different body parts. In an effort to plan a lesson in progression with the previous two lessons, Allison chose to teach content selected from Logsdon's (1984) theme five, Introduction to Weight. Allison decided to focus her lesson on content she called "firm and fine". She understood this content to be more difficult than that taught in the previous two lessons and, therefore, considered it to be in a progression.

The actual lesson was very difficult for Allison. Fewer and fewer children responded to the tasks as the lesson progressed, forcing her to stop the

lesson several times to give explanations and cope with behavior problems. The following excerpts from my field notes are a compilation of the actual tasks she gave during the lesson.

> Clinch your fists as tight as you can. Really tight and firm. See how it feels?...Make your body really tight? How does it feel?...Relax. Feel really fine like a jelly fish. How does that feel?...Make your body really tight? How does that feel?...

The children had little difficulty responding to these tasks given at the start of the lesson. The first few tasks which Allison gave in her lesson corresponded to Logsdon's (1984) comments on introducing the theme of weight in gymnastics.

> If we are introducing the concept first as content in gymnastics, we can take a brief moment for the children to tense and relax muscles to review the feeling for muscle tension. (This feeling has been introduced much earlier, in conjunction with stopping, starting, and holding the body in a clear position of alert stillness). (p. 273)

However, Logsdon's theme on the introduction of weight has an inherent assumption that certain content has previously been covered and an appropriate degree of skillfulness in that content has been developed. For example, Logsdon commented on the revisitation of the "actions of the body and activities" (p. 273) in order to enhance the ability to vary those skills through the examination of muscle tension. The remaining tasks in Allison's lesson, and the children's responses to those tasks, indicated that she had not taken into consideration the children's lack of experience with prerequisite movement content and their prior skill development.

> Show me a fine movement. Free and flowing...When I say go, travel anywhere you want to and when I say freeze, be firm and tight...Show me a firm movement. Show me a fine movement...Try again. When I say freeze, show as firm as you can...Let me see a firm movement...Show me a fine movement. Show me a firm movement. Show me a fine movement. Show me a firm movement. Show me a fine movement. Show me a firm movement. Balance on different body parts using either a firm or fine movement. Balance on different body parts using either a firm or fine movement. Balance on different body parts using either a firm or fine movement. Show me a firm movement. Show me a fine movement. (Observation Field Notes)

Very few children responded with actions indicative of changing muscle tension. The children simply traveled by jogging or running around the teaching space and stopped, usually talking or otherwise not paying attention, when she said "freeze". Almost all of the children responded to the balancing task by standing on one foot. One child responded with a headstand. Only two or three of the nearly twenty children were tensing and releasing in response to being asked to show or use a firm or fine movement. When her students did not respond to a task, Allison continued to repeat the same unlimited task rather than provide the children with an example of what the task required or a more direct task (i.e., a reduction of student decisions in the task).

Immediately after the lesson, I observed her supervisory conference with Dr. Campbell. When asked why she had given those particular tasks during the lesson and what she wanted the children's bodies to do, she responded with silence or by simply reiterating what she had said during the lesson.

> I tried to say firm was tight and fine was like a jelly fish. Real loose...I wanted the body tight when they froze. Maybe they weren't able to understand that...I had them travel. (Allison, Observation Field Notes)

In the reflection session which followed this lesson several days later, I asked Allison again what had made her choose content from theme five, and, in particular, the tasks which she had given during the lesson.

> Well, I just. Well, Tina had worked with them on twisting. So she (Dawn) worked with them on different body parts. And I just thought we would work on something different. (Allison, Reflection Session)

She furthered her response by telling me where she had "gotten the lesson". She opened the Logsdon et al. (1984) textbook and indicated that she had taken the following tasks verbatim from the section of sample learning experiences in theme five as her written lesson plan.

> Sample Learning Experiences
>
> 1. Right where you are, tighten your muscles and relax. Try to feel the differing amount of tension or tightness in your muscles.
> 2. Travel in any way you like, frequently come to a momentary but complete stop, showing an alert stillness with muscles tight and ready to move again.
> 3. Select a way of traveling (teacher or student can do selecting); in your own space, make this movement as strong as you can, then make it as fine and gentle as you can.
> 4. Take a balance you can hold and make your free body parts twist in different directions. Developing a feeling for firmness, then lightness in your twisting. Feel the body part become very tense and then feel the tension leaving the body part...
> 7. Travel in and out of balance showing clear moments of firm, upright tension and other moments of released tension. (pp. 273-274)

A comparison of the tasks Allison gave during her lesson with the sample learning experiences she had taken from the textbook clearly indicated that she was attempting to use the textbook tasks during her lesson, even

though she said them differently in the actual lesson. However, an examination of the tasks from the text indicates an assumption of prerequisite ability in several of the tasks. Selecting a way of traveling and a balance that can be held, holding a position of alert stillness, twisting free body parts when balancing, and traveling in and out of balances are content which is covered in the four themes prior to the introduction of weight (Logsdon, 1984). The children in Allison's lesson had not had this background.

Allison's selection of the quality of tension as the focus of her lesson without regard for the children's actual body management skills (Preston-Dunlop, 1980) indicated that she was not planning and teaching from a grounding in an adequate sense of appropriate content progression. Similarly, her inability to articulate what she wanted the children to actually do hints at her lack of a clear mental picture of what she expected the children's movement responses to look like. In effect, Allison was not able to translate the tasks taken verbatim from the text into tasks for learning during the lesson.

Allison selected the movement content for her field experience lesson because it was different and selected the tasks primarily because they were written in the textbook she was using to plan. Received knowers have been found to take and use material they have learned "as is" without transforming it through application or by producing knowledge on their own (Belenky et al., 1986; Rovegno, 1992a). Without her own image of the movement content she was teaching, Allison was left dependent on her textbook as the authoritative source of what to teach. In the final interview, Allison acknowledged that it

was her lack of knowledge and her inability to see herself as an authority that compelled her to chose content verbatim from the text.

> I wasn't knowledgeable of [the subject matter] and [the text] was the only source I had at that time...So that is why I used it...Where else would you go if you don't know? If you are just learning and have never taught before, what else should you do?...I don't know where else you should go if you don't know what you are looking for...I had never been an authority. (Allison, Interview)

Interaction Between Focus on Control and Disconnected Image of the Subject Matter

Throughout the semester, the preservice teachers attributed their sense of not knowing what they wanted largely to their more consuming concern for control. For example, when Dawn was asked about her struggle to identify what she wanted with respect to the movement content she had taught, she replied:

> I was working on control. I didn't have a real single vision the entire semester...It makes it worse, you have to have one...You have to have a vision and know what you want or you may as well hang it up...It was being so concerned about control that made me so unsure of what I wanted. (Dawn, Interview)

Similarly, Allison's comments immediately after her "firm and fine" lesson and in the following reflection session were primarily focused on the children's misbehavior and her sense of a lack of control. She concentrated on the fact that she did not stop misbehavior quickly because "so much is going on and it gets overwhelming then". Even when specifically asked about the

movement content and tasks of her lesson, she quickly brought the discussion back to the issue of classroom control.

> They were still off task...And my task, I wasn't as specific as I was supposed to be. That was my fault. But still, a lot of people were running into each other on purpose...and I had told them not to do that. (Allison, Reflection Session)

> I think I should have been more worried about control. I admit, I should have been more specific..in what I told them to do in the task. I see that now. But I should have, like Dr. Campbell said, I should have stopped the misbehavior...They were not really listening to what I was saying. So I wish I would have sat them down earlier. (Allison, Reflection Session)

To Allison, the fundamental problem in her gymnastics lesson on weight was the lack of control, not her disconnected subject matter knowledge.

The external attributions of responsibility and the lack of sense of self as authority of these preservice teachers seemed to go hand in hand with their inability to construct a comprehensive image of the movement content they were teaching. Fuller and Brown (1975) suggested that task concerns follow the stabilization and resolve of the early teaching concerns related to self. If preservice teachers are overwhelmingly focused on emotional survival in the face of a classroom they perceive is out of control, it is certainly reasonable to expect that there would be little time or energy left available for intentional reflection on the subject matter aspects of the lesson. Likewise, Buchmann (1984) has suggested that:

> Deficiencies in the depth and assurance of teacher's content knowledge can act as conceptual and behavioral traps that lead teachers and

> students away from education to outward forms of achievement, confusion, preoccupation with process, and management concerns. (p. 45)

Some preservice teachers may well be caught in the cycle of feeling out of control in their teaching which contributes to their inability to focus on and construct their own image of the movement content. This would likely lead to even greater concerns for classroom control, thus continuing the cycle.

Shift to an Orientation Towards Teaching for Learning

Near the end of the semester, the preservice teachers' orientation toward teaching shifted from a primary focus on control to a concern for teaching for learning. Two themes emerged from the analysis of the data which were indicative of their shift in orientation. The first theme concerned the change in the preservice teachers' rationales for attributing importance to control in the classroom. The second theme was related to the preservice teachers' developing image of the subject matter they were teaching. They began to identify more clearly the movement content they wanted to teach in their field experience lessons and began to situate their lesson content within their own image of necessary prerequisite content and content that would be taught in the future. They also began to change the manner in which they designed the structure of their movement tasks (Barrett, 1984b).

Control Important So The Students Can Learn

One of the clearest indications of a shift in the preservice teacher's orientation towards teaching was the change in the way they talked about the importance of control in their classes. The focus of their comments changed

from a sense of needing control out of their struggle to survive (Fuller & Brown, 1975) to a sense of wanting control because they cared more about teaching and learning.

> I assume management comes first...It is hard to instruct people that aren't listening...If you don't have them at least listening to what you are saying how can you teach them anything...So I go for management first and once I have that then I can teach. (Bob, Interview)
>
> If you can't get the kids to sit down and listen, then they are not going to learn anything...Control was a major concern for me at first...Without it, you won't get anything accomplished, they aren't going to learn anything...My main concern now is I want to teach them. I want them to learn. (Allison, Interview)
>
> [Control is important] to establish the working environment. If you have control over it, not only can you elicit what you want to see, it seems like it will be easier for those kids who can't learn without distraction to learn...I guess if you have control you make the best conditions for each kid...You have to be able to see what works and what doesn't and the only way to see that is if you have control over it. (Dawn, Interview)

Classroom control and management became an antecedent and fundamental component of a lesson as a way to facilitate instruction and learning, rather than a requirement for a personal sense of survival and control.

Knowing What They Are Looking For

The preservice teachers in this group exhibited several changes in their ability to construct a more connected image of the movement content they were teaching. First, they began to develop an image of where they wanted the content to go. They gained a broader perspective in their planning as they connected the movement content they selected for the immediate field experience lesson to content which they imagined would be taught in future

lessons. The preservice teachers exhibited this change at different times during the semester and when teaching different content.

Bob was the only preservice teacher in this group who began to exhibit this change near mid-semester at the end of the educational games portion of the field experiences. He had begun to plan tasks for skills related to a game he envisioned for a future lesson, even if he did not believe that game would be taught within his allotted week of teaching. During the educational gymnastics portion of the course, however, he reverted back to planning for the immediate, upcoming lesson without regard for past or future lessons.

Allison and Dawn did not begin to plan in relation to their image of where the content was going until the last lesson of the semester. For example, Allison's rationale for teaching rocking in her last lesson was because she saw rocking as related to and prerequisite to the skill of rolling. Likewise, Dawn explained her rationale for her selection of content in educational gymnastics.

> We were going to go from balancing to rocking to rolling. We had a progression, we knew where we were going with it. If we had had more time we probably would have gotten into complete movement sequences. (Dawn, Interview)

A second indication of these preservice teachers' developing understanding of movement content was their ability to take into consideration the fundamental skillfulness that was prerequisite for the children's success in the lesson. In the last reflection session of the semester, Allison reasoned that

> you can't expect a child to do something if they haven't been able to do the things they need to do before it. (Allison, Reflection Session)

Dawn also commented on her understanding of taking the children's fundamental skillfulness into consideration in planning and teaching.

> If we teach them this, they have to have this before they can do that. We wanted to teach rolling, but we can't teach rolling until they understand they can hold their body on different parts and rock on all kinds of body parts...They can't do anything until they get that. We had more of a clear vision there of what we were doing. (Dawn, Interview)

Expert teachers have been found to assess and explicitly take students' prior knowledge and background experience into account before proceeding with the introduction of new material (Berliner, 1987; Reynolds, 1992; Westerman, 1991). These preservice teachers were just beginning to demonstrate such understanding.

The preservice teachers in this group also began to change the way they structured decision making in their movement tasks. As they developed a better sense of what they were looking for, they began to reduce the amount of student decision making and made the task, in their words, more "specific" (i.e., more limited or direct).

> You've got to be real specific, so I told them what to rock on. I gave them a certain body part to rock on. I told them slow or fast. And I told them, like, which direction, like, forward, backward, sideways. I was real specific with them. (Allison, Reflection Session)

> You know what you are looking for before you go in there and you give specific directions and tell them what you are looking for. Like in the log roll, you want your body extended. You can tell them you want tightness in your body, things like that. (Allison, Interview)

> So I started reviewing rocking, on stomachs and backs, both extended and curl fashion...I would give them quality modifiers while they were working. Freeze, rock a little bit quicker, change the speed of it so they would have a different quality. (Dawn, Interview)

Their ability to specify body parts and shapes, directions, extension, and varying speeds stands in contrast to their tendency to plan and give unlimited tasks (e.g., balance without specifying on what body parts, do a firm or fine movement without identifying what movements) earlier in the semester. Perhaps the effort to make the task more specific also helped them develop a clearer mental picture of what they expected and were looking for in the children's movement.

A final indication of change was the preservice teachers' growing understanding that the amount of student decision making in the task was related to the children's ability to make choices. Ultimately, they linked the children's decision-making ability and the structure of the task to classroom management.

> I think...the second grade, they need to be more specific, but the older they get the more choices you can give them. It depends on whether you think they can handle the choices...I don't think you would give them the choices you would for a older person because they wouldn't know how to handle it, most of the younger ones. You need to be more specific so they will know what to do. (Allison, Interview)

> You have to determine what they can handle, how much decision making they can handle. You have to determine how much the children can understand what they are doing because if you give them too much you are going to have all your management problems. (Bob, Reflection Session)

These preservice teachers had grown in their ability to consider a variety of contextual factors in their teaching. Knowledge of the children's ability, the teacher's understanding of the subject matter and ability to design tasks, and the ability to manage the classroom were becoming related concepts. Learning, or the change in cognitive structure, is dependent upon the connections and relationships made between elements within the structure (Boud et al., 1985a; Pines, 1985; Rumelhart et al., 1988). Allison, Bob, and Dawn were no longer simply receiving knowledge about teaching, but were beginning to construct their own understandings. They grew in their ability to make connections among different aspects of the teaching context, began to view themselves as part of the teaching context, and subsequently, moved towards a more constructed and contextual way of knowing about teaching (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener & King, 1981; Rovegno, 1992a)

Mediators of the Shift in Orientation

By the end of the semester of the methods course, Allison, Dawn, and Bob had transformed their orientation towards teaching as an issue of control to an orientation of teaching as a concern for students' learning. Two themes emerged as the potential mediators of this shift. First, there was an increasing sense of self-responsibility among all three participants in this group. Second, the preservice teachers were developing the classroom management knowledge necessary to begin to focus less on control and more on learning.

Change in Attribution of Responsibility

One of the most important changes in this group of preservice teachers was their shift from an external attribution of responsibility to a more self or internal attribution (Brophy & Evertson, 1976; Murray & Staebler, 1974; Weiner, 1990). As these preservice teachers became more aware of their own agency in their lessons, it paved the way for them to pay more attention to other aspects of their lesson.

Awareness of blaming the children. The preservice teachers developed an awareness that they had a tendency to blame the children for problems in class rather than reflecting on their own actions and decisions within the lesson. Dawn said it most eloquently:

> We are sitting here blaming the kids but maybe it is the way we explained it. I mean, it is not necessarily a discipline problem...but it is the way we phrased it. We are not on their level yet and it is something we need to work on...I know I personally blame the kids for making me crazy. It could be that I wasn't planned enough, or I really wasn't in tune enough with the level they are at and what they need to be doing...I think my first instinct...is that I look at the children's behavior rather than looking at how did I explain it. Maybe that should be the first thing...I think sometimes I tend to find excuses for why things went wrong instead of finding the causes of the problem. It is a lot easier to find fault in somebody else...rather than find the problem in yourself and the way you are presenting it. (Dawn, Interview)

Reflection has been referred to as the process by which teachers shift from interpreting classroom events from a teacher perspective to the ability to interpret events from a pupil perspective (Kottkamp, 1990). Similar to the preservice teachers in Rovegno's (1991) study, when these three preservice

teachers came to understand that there was more than one perspective on an event, they no longer needed to blame the children for classroom problems.

Growth in self-understanding, or the examination of "one's emotional reactions and dispositions" (Garman, 1986, p. 15) is one facet of reflective thinking. These preservice teachers exhibited a definite growth in introspection over the course of the semester. Their willingness to be more self-critical and their growing awareness of their causal attributions provided a strong impetus for their shift in orientation from teaching as control to teaching for learning (Bullough, 1987; Fuller & Brown, 1975).

The importance of knowledge of the children. The preservice teachers began to attribute problems with classroom control to their own lack of knowledge about the children, rather than to the children themselves. Dawn explained how not knowing the children influenced her teaching.

> I didn't give them any choices...I could have said 'Let me see if you can toss and catch with your partner and keep it going', but I would say 'I want to see you do this so many times'. I didn't tell them to keep going. You are doing it ten times and you are stopping. And part of that came with my control frustration...I'm sure that [not knowing the children] was [related to my issue about control] because I didn't know what was going on. I wasn't in control of the situation. I didn't know what they were doing...I didn't know their names. I didn't know what they were capable of. It just threw me. (Dawn, Interview)

The preservice teachers also commented on their lack of rapport with the children, or, as Bob said, an inability to "get on their wavelength".

> A lot of it, I think, comes from the fact, with me, I generally have a better rapport with the kids that I have continuous contact with. I feel very stupid going into these classes, not really knowing anything about

> the kids...I don't know if it is because I don't feel like I have a rapport with them or what. (Dawn, Reflection Session)

All three teachers in this group frequently commented that their struggle with organizing the children was related to their lack of knowledge of the children. The most common organizational problem attributed to not knowing the children was putting "troublemakers" together in partners. Not knowing the children was also related to their feeling of being personally confronted by the children.

> And we didn't know the kids and that was harder. You didn't know which kids will try to test you, or which kids, you know. I didn't know anything about them. (Allison, Interview)

These preservice teachers recognized that their lack of "knowledge of the learners and their characteristics" (Shulman, 1987) contributed to their feeling of a lack of control. What they felt they lacked, however, was information which would shed light on the children's classroom behavior, rather than knowledge of children's movement responses and how children learn specific subject matter. Novices have not had the experience necessary to generate and build a schemata from which to anticipate student behavior, and thus take appropriate preventive action (Berliner, 1987; Carter et al., 1988; Fernandez-Balboa, 1991). The lack of a "fully developed student schemata" (Berliner, 1987, p. 75) underlies much of the early teaching concerns suggested by Fuller and Brown (1975).

One indication of the preservice teachers' growth was the change in the way they talked about the importance of knowing the children. Early in the semester, a lack of knowledge about the children was an issue because it contributed to their sense of a lack of control in their classes. Throughout the semester, however, the preservice teachers developed a greater sense of what to expect in terms of the children's classroom behavior and became more confident and less focused on controlling the children. They eventually began to frame their growing knowledge of and comfort with the children as having helped them develop a sense of control so that they could begin to focus more on teaching. Allison said it best:

> The more I teach, the more times I get to be with the class, the more I'm getting to learn each student, each child. I think it gets easier when you know how the children are. If you don't really know them, it is harder to teach them...I think the longer you work with kids the more comfortable you get with them...I gained more confidence in myself at the end. Once I gained that, I think more about the kids. How I can teach them things and how they can learn. (Allison, Interview)

Being specific. The shift towards self responsibility was also indicated by the preservice teachers' struggle to "be specific" and say what they meant. They struggled to "explain everything exactly the way you want it" because they realized that the ability to be specific and say what they wanted was related to the students' ability to do what the teacher wanted them to do.

> If you explain only half of what you expect the class to do, and you just assume they are going to do it, they will never do it. I can't think of an example right off hand. If I don't tell them I want them to line up on that line, on that black line, they will line up all over the gym, and think they are doing exactly what you told them to do...It is not what I wanted

> or what I intended, but they are doing exactly what I told them to do...It was mostly organizational problems that I had with that. (Bob, Interview)
>
> A lot of it has to do with the way you present whatever you are doing...My organizational pattern was correct and was probably the most efficient way to do it, but the way I gave the task out, instead of saying this is what I expect...I would say, 'Oh, they were awful. They couldn't stay on task at all'. Well, they didn't know what I expected to see from them either...I think I did attribute a lot to them, and now I think it was just inexperience. I didn't present things as clearly and precisely as I could have. (Dawn, Interview)

For Allison, in particular, being specific was the solution to her problem of not knowing what she wanted and the key to her transformation during the semester.

> I know now I need to be very specific in my directions and things because they won't know what you are talking about. That is what I have really been trying to stress now. When I give instructions or directions I try to be [more specific]. That is what I am really going to work on, trying to be more specific in my directions and instructions...I think that right there is the main thing I have learned. It has helped me more than anything. To be more specific. (Allison, Interview)

The preservice teachers' struggle to be specific and identify what they wanted in their lessons was initially limited to managerial directions and instructions. Eventually, being specific included the subject matter (i.e., movement) task. Being specific was the cornerstone of their growing understanding of task structure (Barrett, 1984b). Through their efforts to be specific in their movement tasks, they began to make their tasks more direct and developed their own images and expectations of the children's movement responses.

> I think it is easier if you plan it out beforehand. Know what you are going to say. Make your objectives and everything, your tasks, very specific so you will know what to look for...If you do that in the beginning, it is easier to teach...They know what I'm looking for and I know what to look for when I am more specific in my lesson plans and everything. The lesson goes better for both of us...I know what I'm looking for, because if you don't know what you are looking for then your lesson won't go. (Allison, Interview)

The preservice teachers' attempt to be specific and to communicate exactly what it was they wanted required that they first identify what they wanted. They had to take the responsibility to create a vision of their lesson and a vision of their students' behavior in order to then communicate what they wanted to the children. The ability to project a vision of the lesson, an essential aspect of the planning process, has been linked to the development of a knowledge structure of the teaching setting (Barrett, Sebren, & Sheehan, 1991; Clark & Peterson, 1986).

The preservice teachers' increasing sense of self responsibility was an indication that they were moving towards a new understanding of themselves in relation to the context of the classroom. Instead of removing the self from the thinking process, they began to include themselves in the construction of their understanding of the classroom (Belenky et al., 1986; Blanchard-Fields, 1989; Labouvie-Vief, 1984; Rovegno, 1992a). They recognized their own causal attributions and lack of knowledge about the children as a factor in their struggle with classroom control and management. They also began to identify their own vision of what they wanted to have happen in their lesson.

The classroom behaviors of more self-responsible teachers (i.e., teachers with an internal locus of control) have been found to be associated with teacher effectiveness and student achievement (Brophy & Evertson, 1976; Murray & Staebler, 1974; Rose & Medway, 1981; Schempp, 1986). Brophy and Evertson found that teachers who are more self-responsible also maintained organized learning environments. As the preservice teachers' sense of self-responsibility in their field experience lessons grew, they became less reactive and, as Fernandez-Balboa (1991) suggested, became increasingly able to manage the classroom.

Development of Classroom Management Knowledge

The second mediator of the shift in orientation towards learning was the development of classroom management knowledge and skills. The struggle to put into practice the principles of classroom management emphasized in the methods course became a central theme of discussion during reflection sessions.

The primary management principle discovered by this group of preservice teachers was the importance of dealing with issues of classroom management "in the beginning". They concluded that the rules and strategies for controlling student behavior was one of the most important aspects of the lesson that should be dealt with "in the beginning". It was common during the first few reflection sessions for these preservice teachers to comment on "going over the rules" at the beginning of their upcoming field experience lessons.

> I think if you do it in the beginning, they seem to behave pretty well. They know what is expected of them and they go ahead and do their job and you probably will have two or three who are going to test the rules

> out, and if you get those under control the whole class will behave pretty well. (Bob, Reflection Session)
>
> The main thing I have learned is to...stop misbehavior right in the beginning. Not let it go on, because if you do your lesson is going to flop. (Allison, Interview)

Stopping misbehavior "in the beginning" was initially a matter of simply removing the children from class, or "sitting them out". All three of these preservice teachers commented on their reluctance and dislike of this strategy and their struggle to figure out an alternative. As the semester progressed, they shifted their focus from removing the children from class to the effects of equipment distribution and organizational patterns (e.g., pairing appropriate partners, spatial arrangement of the children, and spreading equipment) on the children's behavior.

The preservice teachers also associated the principle of dealing with management "in the beginning" with the establishment of managerial routines necessary for teaching. These included such things as "rehearsing" listening skills, organizational patterns used during class, equipment distribution, and lining up after class. Bob began to understand this through observing the site coordinator at his field experience site. He commented on how his site coordinator had taught the children "how to get in lines", and "how to stop...and spread out on their own". Bob perceived that, at his school, the children had:

> "gone over it so much that they understand what is expected so you can mainly concentrate on the task you want them to learn". (Bob, Reflection Session)

Dawn commented on the importance of rehearsing organizational patterns and equipment distribution in educational gymnastics.

> Its just the initial thing. I guess you should have initial lessons at the beginning of the year...where you learn the different organizational patterns...Then you could carry it over through your other plans. (Dawn, Reflection Session)

> I think you would have to spend an entire class [in educational gymnastics] on getting and putting back equipment and have them understand the safety aspects before you could ever let them work on it. (Dawn, Reflection Session)

The preservice teachers' initial sense of a lack of control in the classroom can be partially attributed to their inability to generate and establish classroom organization earlier in the semester. Expert-novice research supports such an explanation. Novices often do not establish routines in their classes and, instead, have been found to use inconsistent managerial patterns in which the students must be instructed anew each time (Kagan, 1988; Leinhardt & Greeno, 1986). One commonly found characteristic of expert teachers, however, is the establishment of routines for effective organization (Brophy, 1980; Clark & Peterson, 1986; Kagan, 1988; Leinhardt & Greeno, 1986; Reynolds, 1992; Yinger, 1979, 1980)

The preservice teachers in this group had taken the first step towards expertise. As a result of their own experience and opportunity to reflect on that experience, they began to develop a sense of being able to affect the children's behavior through their own managerial decisions and actions. They

eventually moved to a place of understanding the importance of establishing managerial routines in the future.

The development of classroom management knowledge and skill seemed to serve the purpose of helping Allison, Dawn, and Bob gain the sense of control in their classrooms that they so vividly felt they lacked. Their growing sense of agency and their developing ability to manage the classroom effectively provided the space for the shift from an orientation towards teaching as control to a greater concern for teaching for learning to occur.

Summary

The preservice teachers in this group evolved from an orientation of teaching as control to an orientation of teaching for learning. Classroom control was the initial attraction for these preservice teachers' attention as they struggled with their sense of confidence and their sense of self as an authority. This orientation towards control so consumed these preservice teachers that they often went into their field experience lessons without any connected, self-constructed sense of the movement content they were teaching and where it was going. Their movement tasks were often not related to the children's actual skill level because the content was too difficult or the task structure was inappropriate for the children's decision-making ability.

As their orientation towards teaching shifted towards learning, they began to conceptualize classroom management and control as fundamental to instruction. Once they began to focus more on learning, and less on control, they began to define more clearly what they wanted and expected in their

lessons. This enabled them to consider the movement content of their lessons in relation to prerequisite content and to an image of where the content was going. They also began to reduce the degree of student decision making in their subject matter tasks in an effort to match the task more appropriately to their expectations (i.e., mental picture) of the children's movement responses and the children's decision-making ability.

Two themes emerged which served as potential mediators of the shift in orientation. First, the preservice teachers developed an increasing sense of self responsibility for the events of their lessons. Their increasing knowledge and level of comfort with the children and their growing confidence in being an authority gradually replaced their earlier feeling of being out of control. Second, the development of classroom management knowledge and skills enabled the preservice teachers to establish a sense of structure within their actual lessons. These two areas of growth provided the internal and external structure necessary for the preservice teachers to shift their orientation from a need for control to the instructional aspects of their lesson.

CHAPTER VI

GROWTH WITHIN AN ORIENTATION TOWARDS TEACHING FOR LEARNING

Orientation Towards Teaching for Learning

The preservice teachers in the second group essentially began the semester where the first group of preservice teachers ended. They saw themselves as responsible for what happened in their lessons, believed control in the classroom was important so students could learn, and had a more connected image of the subject matter from which they made their content decisions. These preservice teachers entered the methods course oriented towards teaching for learning, and they continued to grow within the orientation with which they began.

Self Responsibility and A Focus on the Children

In contrast to the first group of preservice teachers, the preservice teachers in the second group understood themselves to be a critical part of the context of their field experience lessons from the very beginning of the semester. During reflection sessions they focused primarily on themselves and their actions and decisions, rather than on external explanations and attributions of responsibility for the events of their lessons. They believed that the responsibility for the events and success of their lesson fell mostly on themselves as the teachers. According to Rusty, "it is up to the teacher how

well it goes" and "the teacher makes it or breaks it". For example, when Rosco was reflecting on a second grade games lesson which he thought went particularly badly, he attributed the responsibility for that lesson to himself:

> Seriously, I really contribute most of it to my lack of enthusiasm. I was in of those [moods], if you looked at me it was like I didn't care what happened that day...I was just there...My tasks were not thought out as much as they should be. As much as I thought they were. That was another contribution to the failure. (Rosco, Reflection Session)

These preservice teachers began the semester with a more internal locus of control; that is, they perceived that the events of their field experience lessons were largely under their own control (Brophy & Evertson, 1976; Weiner, 1972, 1990). Their ability to acknowledge their own agency in the classroom so early in the semester was an indication that the teachers in this group were constructing their own understanding of the classroom and were allowing themselves "back into the thinking process" (Belenky et al., 1986, p. 136).

As a result, externally placed blame was not a salient aspect of their experience. Rarely did they make comments in which they blamed the children. Chris, in particular, was very vocal about her concerns that teachers were blaming the children.

> It occurred to me while we were discussing...Everybody is saying, of course your lesson went good, you had a good group of kids. Or don't worry about it because that was a rowdy group of kids. But I don't think it can be attributed to the kids very much at all. It is how you teach and what you are teaching...I don't think it is right to blame the kids for all this stuff...If the class goes real good for us, I don't see why

> we can't say, well, it was because of my lesson, not just because we got lucky and had a good group of kids. (Chris, Reflection Session)
>
> I think it is one hundred percent the teacher...You can't say that's a bad class and that's why a lesson doesn't go well. And you can't say, oh, that's a good class. It's not the class because they can change and they can respond positively if you give them something to respond to. I just can't see them as being to blame...There are some difficult problems you have to deal with and that makes things probably a little rocky, but I don't think that should determine the course of a lesson...If you think it's the children that determine [how well a lesson goes], that's such a powerful stance to me...I don't think I could teach. I don't know if I'd even try because I would think I was at their mercy. (Chris, Interview)

Not only did this group of preservice teachers maintain a perspective throughout the semester which included themselves as part of the classroom context, they eventually began to focus on and include the children as part of the context as well. Their comments about focusing on the children may be interpreted to suggest that, at some point, they had undergone some aspect of the same transformation as the teachers in the previous chapter.

> When I first started teaching I tended to be more concentrated on my end of the deal, by what Dr. Campbell said, worrying about my movement around the room...my ability to observe what is going on in the classroom. And I wasn't really paying attention to what the kids were doing, I was worried about what I was doing. I realized that everything Dr. Campbell was looking for in me would be accomplished if I paid attention to the kids...Instead of worrying about what I was getting graded on, worry about what the kids were doing and everything would come from that...The kids are what your success is based on. If you concentrate on them, then you are going to be successful...what matters is the kids. If you overlook them, you are not really doing your job. (Kathy, Interview)
>
> At the first of the semester, I was a little bit more focused on me and what I was doing. When I was planning, the objectives in my mind, anyway, had more to do with me and my actions and my behavior...That is still there, but now I'm thinking more towards, are the kids going to learn from this? Are they learning? Did they learn something?...At first

> it seems really overwhelming. How am I going to deal with all these different things? You just worry about yourself and getting yourself through the lesson. But now I think it is more centered on how can the kids learn. It is not just me progressing through the tasks like I'm supposed to, but are they going to learn. (Chris, Interview)

Their comments indicated that they moved from a place of being somewhat self-absorbed in their reflections to a greater concern for the children's learning. What is different about this group of preservice teachers, however, is that their initial focus on themselves came out of an internal locus of control and an early sense of caring about teaching for learning, rather than a struggle for survival and an orientation of teaching as control. In other words, the focus of their reflections expanded and grew within an orientation towards teaching for learning which they already held.

Another aspect of their increased focus on the children was their struggle to understand classroom events from the perspective of the children.

> If the kids give the wrong response...its because I didn't give them enough information or the right information...I guess what is more important to me is to see things from the kids' perspective, too, not just from ours...It's made me look at myself. (Rusty, Interview)

This was especially salient with respect to their ability to communicate clearly to the children. While Chris, Kathy, Rosco, and Rusty all commented on their struggle to say exactly what they meant, the core of their concern was whether or not it made sense to the children.

For example, during a third grade lesson on traveling through general space, Rusty discovered the difference between what he wanted to see, what he

said, and what the children heard. In an attempt to help the children spread out as they traveled, he asked them to spread out like "candy sprinkles on a cup cake". The children responded by spreading out and stopping in their place, a response he initially perceived as incorrect on the children's part. In the reflection session which followed that lesson, Rusty came to understand that the children had a different interpretation of his comments.

Rusty: I told them to go out, fill up the space...

Ann: and be sprinkles.

Rusty: and be sprinkles. That's right! (snaps his fingers) That is all I told them, isn't it?...They did exactly what I told them. They did, they spread out and stopped...No wonder they did that...I told them to go out and be a sprinkle and I didn't tell them to move. I also told them to fill up the space, which they did. But I never told them to move...I didn't tell them what I wanted to see, and they did exactly what I told them. So I got mad at them for doing what I told them.

Likewise, Chris realized that the children did not understand the words "high level" and "low level" during a catching lesson, even though it was perfectly clear to her what they meant. And Rosco found that the children understood the phrase "alert pause" as the freeze frame on a Nintendo machine instead of a momentary, tense pause between movements. When Rosco commented on his struggle to get the children to understand, he said:

> I was thinking 'Why can't they understand this, why can't they grasp it?'. Because they didn't know what was going on...They didn't know what I know. I have since realized that is why I couldn't get them to understand...I think the problem was the choice of words I used to describe a, b, and c. (Rosco, Interview)

All of these teachers came to understand that "the problem was not whether the teacher gave clear, precise directions but whether the children understood the directions" (Rovegno, 1989, p. 142). In an effort to communicate to the children in a more comprehensible way, the preservice teachers began to review their tasks and their planned explanations prior to the lesson from the children's perspective. Their ability to take on the perspective of the children was an indication that these preservice teachers were coming to know the classroom in a more contextual, constructed way (Belenky et al., 1986; Blanchard-Fields, 1989; Labouvie-Vief, 1984; Rovegno, 1989; Sinnott, 1984).

Making Connections Between Management and Learning

As with the first group of preservice teachers, these preservice teachers' ability to be self-responsible for the events of their lessons provided the structure within which they could focus primarily on teaching for learning. From the very first reflection session of the semester, they connected classroom management, or "control" as they sometimes said, to teaching and learning. Classroom management was necessary and fundamental in order for them to teach and the students to learn. They did not focus on control because of issues related to self, but because management and control were antecedent to teaching and learning.

> The management thing is such a big issue...the whole lesson hinges on it. I realize now that it is basic, it's extremely important. The students have to be in control and ready to learn before you can do anything else...Keeping control as far as keeping their mind on what they are doing...It seems to me that the more attentive they are, that's an indication of how interested they are. The more attentive they are, the more that's going to facilitate their learning. (Chris, Interview)

> Instruction is going to depend on the management, on the quality of the management most of the time...Not just with class control but with equipment and facility management, time management, the whole thing. Instructional time is going to be increased, and the quality of instruction is going to be its maximum if the management is adequate, is all it can be. So in that sense instruction is very dependent on the management aspect and how good a manager the teacher can be. (Chris, Interview)

> It looks like the skills part or the task part came pretty easily once you had all the management taken care of...Concentrate on management and keep the kids under control, I think then the task will fall in place...Having the management concerns planned for and taken care of gave me the confidence to teach my lesson. (Rosco, Reflection Session)

> I guess I have learned that management plays a more vital role than I thought it did...If you don't have management, skills don't matter...If you ask me which I think is more important, I think management is because if you don't have management, it don't matter what you teach...I have yet to see a class that was managed poorly but that has great content go right. (Rusty, Interview)

Similar to the preservice teachers in the first group, the preservice teachers in this group also developed classroom management knowledge and skill throughout the semester. The difference between the two groups of teachers was that the development of classroom management knowledge indicated growth within an orientation towards teaching for learning already held, rather than serving as the mediator of a shift away from an orientation towards teaching as control. They understood the relationship between the managerial aspects of their lessons (i.e., organizational patterns, spatial concerns, equipment distribution, and amount of time the teacher spent talking) and their ability to provide adequate practice time in their lessons and to observe and give feedback.

For example, Chris was concerned that she "talked too much" and that it "cut into their practice time" during several educational gymnastics lessons. She also commented on the relationship between organizational patterns and the establishment of an environment appropriate for learning. When reflecting on a tossing and catching task during an educational games lesson she had observed, Chris commented:

> He had them in partners tossing and catching...He chose to let them spread out and choose their own space and it was chaos. They kept having to move around and they were throwing balls across each other. I think it would have gone better, it would have taken more time to organize them in lines, but the task would have gone better. I think they could have had more meaningful practice time. (Chris, Reflection Session)

Kathy often reflected specifically on the arrangement and distribution of equipment in her lessons. She explained that she thought this was an important aspect of management so that it would not "take away from your lesson".

> Equipment management, I'm learning that still...How to set it up so it will be to your advantage...So everybody can get it and get back without killing each other...Basically to get them to use the equipment right away...How you set up the equipment dictates how they are going to react to it. If you set it up in a pile, they are all going to go up to that one pile and it is just going to cause mass confusion. You set them up separately...So it is going to be safer and not going to take away from your lesson. (Kathy, Interview)

All of the preservice teachers commented at some time during the semester on the relationship between the amount of space in which the children were

spread and the ability to observe, give feedback, and help the children's movements.

> If they hadn't been spread out so far I could have given them more attention...The learning space was much too large. The students were too spread out to be adequately observed. (Chris, Journals)
>
> I think the way he had his space laid out is what hurt his tasks. (Rosco, Reflection Sessions)

Similar to the preservice teachers in the first group, Chris, Kathy, Rosco, and Rusty also came to understand the importance of establishing managerial routines in class. Kathy commented on the establishment of "long term" rules such as cues for stopping and starting tasks, getting the equipment for the games lessons, and traffic patterns among the educational gymnastics equipment. Chris, Rosco, and Rusty reflected on the helpfulness of setting aside time during the lesson to "practice" such things as equipment distribution and organizational patterns. Rosco projected his growing understanding into the future when he commented that management was something he would primarily "concentrate on the first week or two of school".

To these preservice teachers, classroom management knowledge and skill were the means by which to fulfill their orientation towards learning, rather than to provide the sense of control necessary for survival (Fuller & Brown, 1975; Hollingsworth, 1989). Their understanding of the relationship between management and learning, and the concomitant development of managerial knowledge and skill, enabled these preservice teachers to attend more closely to the teaching of skillful movement (Hollingsworth, 1989).

Connected Image of the Subject Matter

Without the consuming concern for survival and control, the preservice teachers in this group were more able to focus on the subject matter (i.e., movement content) aspects of their lesson. Chris, Kathy, Rosco, and Rusty gave indications that they had a more connected, comprehensive image of the subject matter in contrast to the preservice teachers in the first group. These four preservice teachers began the semester quite able to identify the movement content they wanted to teach and where they wanted the content they were teaching to go.

These preservice teachers had also developed their own mental picture, or expectations, of the children's movement responses to the tasks of their field experience lessons. They frequently reflected, however, that their mental image of the children's responses to the tasks (i.e., how the children might actually look) often did not accurately match the children's actual movement patterns during the lesson. These preservice teachers were not struggling to create a visual representation of the movement content they were teaching, but were struggling to figure out how to help the children learn specific motor skills.

Knowing Where The Content Is Going. During their planning, the thoughts of these preservice teachers went beyond the immediate lesson and included how the movement content of that lesson related to prerequisite content and to what the children would be doing in future lessons. Lesson

planning in relation to their image of appropriate content progression was to these teachers a fundamental principle of planning and teaching.

Chris, Kathy, Rosco, and Rusty particularly focused on planning in relation to where the movement content was going. For example, Kathy explained that she generally planned her lessons with the intent of working "from where they are at now" to "what I have in mind". When Rosco planned his field experience lessons, he was guided by the thought:

> What is the purpose of teaching anything if we are not leading it up to a situation they can use it? (Rosco, Reflection Session)

What was significant about these comments was that the preservice teachers in this study planned lessons for only one week at a time, taught only once a week, and changed grades every week during the educational games portion of the field experiences. Thus, they did not have an extended time actually to teach the same class until they began to teach educational gymnastics. They planned, however, as if they were directly linking their field experience lessons to future lessons even if those future lessons were not going to be taught.

Their ability to embed their content decisions within their image of where the content was going was influenced by their familiarity with the subject matter. During the educational games portion of the field experiences, all four of these teachers consciously selected the content and tasks for their lessons in relation to a future game they were holding in mind. For example, Rosco planned a lesson for his second grade class on "four aspects of movement:

start, stop, pause, and changing directions". He had conceptualized these "four aspects of movement" as concepts which were fundamental to the game of "educational dodgeball" which he envisioned for future lessons. Chris explained how she planned with a future game in mind.

> With the games...as far as planning goes, I like having a game in mind and then working backwards from that, as far as picking out components and having them work on those components until it gradually leads up to the game...It appeals to me because it seems to be a systematic way of approaching something rather than just teaching a few things and then letting them play. (Chris, Interview)

The preservice teachers in this group had little difficulty deciding what to teach and where that content was headed in future lessons during the educational games portion of their field experiences. There is strong evidence that prospective teachers who enter the field of physical education do so in order to continue their extensive involvement and attraction to sport (Dewar & Lawson, 1984; Templin, Woodford, & Mulling, 1982). Many prospective physical education teachers also enter the field because of their satisfaction and enjoyment as a student in public school physical education programs (Templin et al., 1982). Certainly the degree of emphasis on sport and games is quite high in the vast majority of most public school physical education programs in this country. Such extensive prior experience and socialization into sport would provide prospective teachers with a rich schema (Anderson, 1977, 1984; Rumelhart & Norman, 1978), or script (Schank & Abelson, 1988), upon which to draw for their image of what should be taught and where that content would go. A study by Ennis et al. (1991) confirmed that preservice teachers'

knowledge structures for games content were more completely developed than their knowledge structures in either gymnastics or dance.

Because they had less experience and socialization in educational gymnastics, the preservice teachers had more difficulty creating an image of what the children would be doing in future lessons.

> I think that is what I'm not too confident about, the progression in gymnastics. It is hard to me to know what age group needs to start where, where you need to take it, and not sure what is your end goal. (Chris, Reflection Session)

> The students haven't had gymnastics before...The other thing is that we aren't used to teaching it. So putting those two together creates some tension...I think in our mind we are seeing olympic gymnastics and we have to go back again and think about teaching educational gymnastics...I haven't grasped exactly what we are supposed to be teaching...I think if we can keep it in perspective, exactly what we are supposed to be teaching with progression and everything, on what we want, we will be more focused on what we are trying to get out of it. (Rosco, Reflection Session)

> Gymnastics I'm just not comfortable with because I have no background whatever...I haven't really mapped it out. (Rusty, Interview)

In spite of their struggle with the unfamiliar content of educational gymnastics, the intent to connect the content of the immediate lesson to that of future lessons continued to be a central aspect of these preservice teachers' planning during the educational gymnastics portion of the field experiences. After several lessons, they began to make their content decisions in gymnastics more clearly in relation to their image of where the content was going. For example, Rosco planned a lesson on acceleration and deceleration because he saw it as related to an eventual lesson involving mounting and dismounting the

equipment. Rusty had an image of combining sudden and sustained and rolling in a future lesson. After teaching lessons on traveling on different body parts and rolling, Kathy wanted her class eventually to combine shapes, levels, rolls, and traveling along the equipment into movement sequences. Chris planned a lesson focused on refining the quality of the children's rocking because she wanted them eventually to begin to work on rolling.

For these preservice teachers, knowing where the content was going was a rudimentary aspect of their lesson planning throughout the semester. Implicit in their focus on where the content was going was a consideration of the prerequisite content necessary for their subject matter goal to be reached. It was clear to these preservice teachers that certain content must have been taught and certain skills must have been learned before more complex movement content could be introduced. In practice, Chris, Kathy, Rosco, and Rusty planned their lessons on the basis of their knowledge of the children's background or skill level.

For example, Rusty considered the children's previous lessons when he planned a lesson focused on having the children combine shapes, rising and sinking, and firm and fine in their movements. In his words, he wanted the children to "combine together what they had been working on".

Kathy also took the children's background and skill level into account in her planning. When planning a tossing and catching lesson for the first grade, she did not plan tasks that would require the children to travel from their space to catch. She explained that she would not "have them do that" until she

knew that the children could extend to catch first. Similarly, when planning for an educational gymnastics lesson, she chose not to teach jumping off the benches and traveling because the children were not yet skillful at jumping and traveling from the floor.

After observing a fifth grade educational gymnastics lesson on the forward rolls, Chris changed her plan for her upcoming lesson with that same class.

> It hurt me to watch some of those kids stand on their head, arch, and then flop over and go blam. So I didn't want to get into that yet...I was going on the assumption that they are not understanding what they are supposed to be doing, what the movement is supposed to feel like...So I wanted to go back and start at square one and get them used to holding their body nice and tight and tucked. So I worked on...tension. Getting their muscles tight. I had them working on rocking in different ways. I had them doing log rolls and sideways rolls.

In planning her lesson, Chris had taken into consideration the children's skill level and the prerequisite content necessary for a successful lesson on her eventual content goal, the forward roll.

One consistent pedagogical principle which guides expert teachers is that of cognitive linking, or the idea that "new information should be explicitly related by the teacher to past and future student learning experiences" (Clark & Peterson, 1986, p. 290). These preservice teachers' intent to link their field experience lessons to past student learning and to their image of future lessons was one indication of their developing expertise.

These four preservice teachers also understood that the importance of knowing where the movement content was going was not just for themselves,

but was also important to the children. They often expressed a concern that the children should know the purpose of what they were doing and where it was leading. Kathy believed that the children would "know where they are going" when teachers provided appropriate and gradual progression. Rosco and Chris went a step further and expressed a concern about explicitly informing the children of the purpose of the task or lesson and where it was going.

> The problem that I feel I had here where I couldn't get things across to the students. I didn't show them the overall picture. I had the overall picture, the end product, in my mind, but they had no idea what we were doing...I have learned how to make sure that I incorporate into my teaching letting the students know where we are going and giving them some rationale for why we are doing it. And they don't have to know every move or every aspect, every part of the lesson plan. But if they have an idea of what is going on and they can see where they have been and where they are now, they can see their improvement and how they really are becoming more skilled and more proficient at using the body. I know that actually helped me get a lot of points across, because I let them in on it. (Rosco, Interview)

Chris's concern that the children know where the content was going and know the purpose of the movement tasks was pervasive throughout the semester. She often expressed the belief that the children's lack of motivation was because they did not understand the purpose of what they were doing.

> I think the kids don't see it going anywhere. They don't see any purpose in it. They can't understand the purpose of it. They can't see the relationship between doing the drill and taking it to the game. (Chris, Reflection Session).

> They didn't seem real interested. They, for the most part, did what I wanted to see, but I was constantly having to stay on top and move them on. They weren't real motivated. Maybe what I had them doing was too easy. Maybe they didn't see the reason they were having to do

> it. Maybe they couldn't tie it in to anything, though I tried to explain it. (Chris, Reflection Session).

Chris believed that the children's learning was related not only to an appropriate progression between lessons, but also to the children's knowledge and understanding of that progression.

> It just made more sense...Instead of just jumping right in and doing rolls and stuff, it just made more sense to have some things lead up to that. Plus it would make sense to them. Put it in a context, what they were doing...I watched other teachers not do that...I don't see how they could have been learning anything. And I didn't see any improvement in what they were trying to do. It just didn't seem like, to me, that much learning could take place like that unless you had some basis to attach everything to. This goes with this, and that. Does that make sense? (Chris, Interview)

Informing the children of the purpose of the lesson or tasks in relation to where the movement content was going was their way of making the material meaningful to the children (Ausubel, 1960, 1980; Joyce & Weil, 1986). They recognized that having the children understand more about what was being taught would help create an environment more conducive to learning and, perhaps, influence the children's behavior in the classroom (Batesky, 1987; Ellis, 1989). Increasingly able to take the children's perspective in their teaching, they had moved to a new place of understanding. Their knowledge of where the content was going was useful only insofar as it translated into information which contributed to the children's understanding of the purpose and direction of the lesson.

"Taking Shots in the Dark": Lack of Pedagogical Content Knowledge.

Similar to the first group of preservice teachers, knowledge of the children and their characteristics (Shulman, 1987) was also an issue for the preservice teachers in this group. In contrast to the other group, however, these preservice teachers' concerns about knowing the learner developed out of their interest in facilitating learning, not because they believed that knowing the learner would increase their control in the classroom. They focused on their lack of knowledge of the learner in the context of their struggle to teach the children the movement content of their lessons.

> It was difficult to plan. I felt like I was just taking shots in the dark. What would work and what would be best for them. What would their responses be...During the lesson on my feet was difficult. Student responses were difficult to interpret...I was always unsure whether to change the task and, if so, what to change it to. Was I reading them right. On my feet it was shots in the dark. (Chris, Interview)

Rusty, Chris, and Rosco reflected specifically on the experience of recognizing that, at times, the children did not respond to their movement tasks the way they had imagined them because their tasks were not appropriate for the children's skill level. Their selection of movement content and tasks was conceptually clear to them and they believed that they knew what to expect from the children's responses. They lacked, however, an experiential knowledge of children's movement responses to specific content and an understanding of how children learn skillful movement. Even with all their developing knowledge of classroom management, their sense of self-responsibility, and their image of an appropriate content progression, they still

lacked the pedagogical content knowledge (Shulman, 1986, 1987) for transforming the content into a successful lesson appropriate to how the children learn.

Rusty named his experience of this phenomenon as knowing "what I want to see, not how to get it across". For example, he struggled with the dilemma of knowing what he wanted to see as he taught a lesson on traveling through general space, yet not knowing how to help the children spread out as they traveled. Likewise, in an educational gymnastics lesson on rolling, he "could have told them biomechanically the plane they wanted" in the shoulder roll, yet he could not figure out how to help those students who could not successfully do a shoulder roll.

Chris planned a lesson on kicking for her third grade class during the educational games portion of the field experiences. She explained that she had chosen to teach kicking because it was leading to the modified game of "educational kickball" she had envisioned for a future lesson. Chris's reaction to the actual lesson was frustration. The students had not responded to her tasks the way she had imagined in her planning.

> I was not very pleased with this lesson primarily because the content of my lesson was not appropriate for third graders. My tasks were too difficult for them...My downfall was that I expected them to be more skilled than they were and I had wanted to concentrate more on refining what they could already do...They had difficulty with actual performance. Most of the students were not able to accurately and properly kick a stationary ball. Very few of the students demonstrated success in properly kicking a moving ball. (Chris, Journal Entry)

Although Chris recognized during the lesson that the children were not responding as she had envisioned, she "just went right on" with her lesson as planned.

During Rosco's second grade educational games lesson on the "four aspects of movement: start, stop, pause, and changing directions," the majority of the children were not responding to his tasks in the way he had imagined them. One of the tasks Rosco designed was pausing and quickly moving again, a concept which he linked to Mauldon and Layson's (1965) alert stillness. The children responded by stopping and freezing like statues and remaining in one place. Rosco understood that his image of the task did not match the way the children responded.

> I think one aspect of the lesson that really confused the students, again it was my fault for not clarifying a great deal...I took for granted that they understood the concept of the pause, but they didn't. They kept trying to think of it like a Nintendo...I used it in the wrong context for them. (Rosco, Interview)

Even though the children did not respond to his mental picture of pausing, Rosco continued with his lesson as planned. He next asked the children to pause and change directions. While the children had little difficulty with changing directions, very few of them responded with the pause Rosco had pictured for his lesson. His last task was designed to incorporate pausing, changing directions, and remaining scattered while moving throughout the space.

> One task was I wanted them to walk toward each other, come to a complete stop, and go off in a different direction. I had it pictured as if there would be a few here and a few here. Picture perfect. They were like (slaps hands together in front of him) right in the middle...My tasks were not thought out as much as they should be, as much as I thought they were. (Rosco, Reflection Session)

> In the task, you had to walk toward the center, which means you are going to have some congregation. But in my mind, the way I was planning the task, I needed them much more spread out. (Rosco, Interview)

Rosco's comment that the "tasks were not thought out...as much as I thought they were" suggested that there was something missing in his deliberations on the content he was teaching. Rosco, Chris, and Rusty understood and articulated their rationales for teaching the content they had selected, how they saw it as related to future content that would be taught, and how they thought the content should look in the children's movement responses. What was missing, however, was an understanding of how the children would actually respond and what they would have to do to help the children learn what they were trying to teach. Without this information the preservice teachers were left to continue through the lesson as planned, even though they clearly knew that what they had envisioned for the lesson was not taking place.

The knowledge upon which Rosco, Chris, and Rusty based their content decisions was primarily of a declarative nature, a "knowing about", rather than a "knowing how" (Anderson, 1982; Ryle, 1949). They had not yet gone "beyond knowledge of subject matter per se to the dimension of subject matter knowledge <u>for teaching</u>" (Shulman, 1986, p. 9). This knowledge of subject

matter for teaching has been referred to as pedagogical content knowledge and includes knowledge of how to teach and knowledge of how children learn specific content (Rovegno, 1989; Shulman, 1986, 1987). The preservice teachers' lack of pedagogical content knowledge resulted in an inability to converse with the situation (Grimmet, 1989; Schon, 1983, 1987) during the lesson.

The ability to converse with their students' movement responses was an area in which this group of preservice teachers did not appear to extend their knowledge during the methods course. Yet they were able to articulate and reflect on this aspect of their teaching. If awareness precedes change, then it could be said that these preservice teachers' next evolution will be in the realm of the development of a practical, pedagogical content knowledge for transforming their subject matter knowledge into a lesson "adapted to the diverse...abilities of learners" (Shulman, 1987).

Concepts and Skills: One Preservice Teacher's Conceptualization. Only one of these four preservice teachers was able to articulate his own broad conceptualization, or framework, of the subject matter he was teaching. His reflections on his own understanding of the subject matter contain an excellent example of how his knowledge grew within his orientation towards teaching for learning during the semester.

Midway through the semester, Rosco realized that a pattern had developed with respect to the movement content he had selected to teach for his field experience lessons. He had been teaching what he called "concepts".

Rosco: I always found myself...I was trying to think of a time that I was actually teaching a skill...I kept teaching concepts. Like sudden and sustained...I didn't teach a skill the whole time, except in games.

Ann: What was the skill you taught in games?

Rosco: I remember working, but that wasn't a skill. It was another concept. Starting, stopping, changing directions, and traveling in different directions.

Ann: ...you had a realization that you had not taught skills. Talk more about that.

Rosco: I guess what I was trying to say is that I haven't taught any outcome or end products. I haven't taught the headstand, or forward roll, or shoulder roll. I haven't taught those things.

Ann: You have taught what you say are

Rosco: concepts
(Rosco, Interview)

Rosco elaborated on his understanding of the constructs of concepts and skills.

He considered concepts to be:

> ways of refining and making a skill more skillful. If you want to become more skillful at a given skill, if you want to refine a movement or make a movement more skillful, then what you need to actually refine are concepts. (Rosco, Interview)

And he thought of skills as:

> The shoulder roll, the forward roll, and the cartwheel would be end products, or the skill, whereas traveling on different body parts would be a concept...That may not be exactly a concept like sudden and sustained...but I really don't view traveling on different body parts as a skill. Throwing...is a skill. Catching...is a skill. (Rosco, Interview)

In Rosco's understanding of the subject matter, concepts and skills were separate and distinct constructs. He conceptualized their relationship as a sequential one in which concepts were to be taught first.

> I would rather teach them the abstract concept before I would teach them the roll or anything. (Rosco, Reflection Session)

Teaching concepts was of primary importance to Rosco because they provided the foundation or the "point of reference" necessary for later learning. Rosco expressed the belief that the purpose of teaching was to provide children with a point of reference, or a repertoire of movements, that was fundamental to future lessons and that the children could use at a later time.

> ...that is exactly it...If I can give a kid a whole range of movement ideas, not necessarily teach them each and every movement they will ever need...combine movements slowly, lightly, or move fast and strong. If I can teach them these types of ideas, they can go on their own and create different sequences or whatever. I just want to give them, like, a computer bank, a memory of some sort where they can...pull this out of their backpacks and put it together. (Rosco, Interview)
>
> I think I was trying to teach something they would have to know in order to do the end products. I wanted them to have a foundation, a background. Something solid for them to build upon. (Rosco, Interview)

To Rosco, teaching concepts was the way to provide the children with a repertoire of movements that they could use in future lessons.

> If you teach them the key concepts, they can apply it to more than one movement. If I teach them to just walk sustained, maybe they can't apply that to something else. That is all they can do, is just walk sustained or walk suddenly. Whereas if I teach them the concepts, that there is a difference between the two and they experience it. Focus on that end and drive that home to them. I think they will be able to apply

> that to all kinds of movements...if you give them that point of reference, I think they will be able to apply it much easier. (Rosco, Reflection Session)
>
> I see it as giving them the option of fast and slow. I see it as refining what they can already do. Giving them something to add to it...It broadens it. It gives them more of a repertoire, a repertoire of something to pull from. They have an arsenal of movements that they can pull...out. (Rosco, Reflection Session)

Rosco had constructed and articulated his own knowledge and understanding of the subject matter (Belenky et al., 1986; West & Pines, 1985). Rosco's subject matter coursework relied heavily on the Logsdon et al. (1984) textbook which used Laban's movement themes as the basis of progression (Logsdon et al., 1984). He reconceptualized the material from his subject matter course into his own conceptualization of the constructs of concepts and skills and the progressive relationship between them.

The conceptualization of movement content as concepts and skills is more closely aligned with the textbooks of Gallahue (1987), G. Graham, Holt/Hale, and Parker (1987), Nichols (1986, 1990), and Thomas, Lee, and Thomas (1988), texts with which Rosco was not familiar. G. Graham et al. (1987) clearly differentiates between movements, which are called skill themes, and the ideas which enhance or modify the quality of a movement, which are called movement concepts. These texts also articulate a perspective in which movement concepts are considered to be fundamental to the learning of motor skills.

> Once children have acquired a functional understanding of a concept - such as the ability to travel in different directions or to differentiate

> between fast and slow movements - concepts are used as subthemes to increase the range and repertoire of movement abilities. (G. Graham et al., 1987, p. 35)

Rosco had gone far beyond learning and storing the material of his subject matter coursework as is (Belenky et al., 1986). In constructing his own knowledge of movement content, Rosco had affirmed himself in his own knowing as he took the knowledge he personally thought was important and integrated it with the knowledge he had learned through his coursework (Belenky et al., 1986).

> I know [concepts and skills] are connected, that is a given. I feel there is some need to teach the underlying, basic concepts of those things before you connect a lot of them...I don't know if that is Logsdon or Mauldon and Layson, or if anybody would agree with me, but that is the way I see it. (Rosco, Reflection Session)

Near the end of the semester, Rosco's conceptualization of concepts and skills began to change. He began to understand their relationship as more interrelated, rather than linear. This shift was first evident during a reflection session in the twelfth week of the semester. Another member of Rosco's reflection group, Chris, was discussing a fifth grade lesson she had observed at her school. She was struggling with her perception that the content of shapes was too easy for fifth grade students and wondered what to teach next. I encouraged both her and Rosco to reflect on what skillful shapes would look like to them and how they would identify them.

As Rosco began to describe what he thought skillful and complex shapes would look like, he began to make connections between the content of shapes

and other elements of the subject matter framework. He talked of shapes in relation to levels, firmness and fineness, alert stillness, and body control during transitions between shapes. Rosco began to understand that the elements of the subject matter framework, which he had divided into concepts and skills, were connected and interrelated when teaching for skillfulness. From that moment of connection making came the realization that he, in contrast, had been teaching concepts and skills as if they were discrete and disconnected items to learn.

> I think what I just caught up in, okay, we do shapes. We teach them how to twist, curl. We teach them how to do shapes. Do it this way, this way, and this way. We do three shapes and that is it. And we don't progress within that task. We did shapes, now let's go on to...(Rosco, Reflection Session)

Rosco expounded on his realization during the next reflection session one week later.

> When Chris and I were here we went through shapes. We came up with that we feel like, here is shapes and here is sudden and sustained, and here is firm and fine. Da Da Da. We work on this, we work on this, we work on this. Here is the forward roll. We aren't progressing into what you have to do in order to. Like, if you were to take the sideways roll, instead of just saying the sideways roll, okay, next task. Sideways roll is done fine, sideways roll done suddenly and sustained, sideways roll done firm. Sideways roll with shapes. See the progression? You really take the roll and make it the focus of your lesson...and add all the rest of it in there. Instead of saying, okay, we did the roll, what else can we do next...That really helped me, the other day. (Rosco, Reflection Session)

Rosco had moved from a conceptual understanding of concepts and skills as separate and linear entities towards understanding their connectedness

within the structure of a lesson for teaching. The evolution in his understanding of the subject matter stayed with him throughout his student teaching. During the fourth and final interview, Rosco commented on "that one day" and the impact it had on him.

> That definitely shaped the rest of that semester for me, as well as student teaching. At the beginning of that I would teach rolling slowly, and if I wanted to teach something fast it wouldn't be rolling. I would pick another skill...I wouldn't link the two concepts into the same skill. That just didn't click in my mind to do that. And...that one day sitting in here with Chris...We both just came together and talked it out and said, Hey, we can still use the same skill and this will give the kids variety...This really worked for me in student teaching in the games unit...That light bulb went and I said, Hey, I can use the same lesson focus. I can use the same focus of the lesson but I can add so many things to it and give them more practice at what they need and still give them more information on the concept they were using. (Rosco, Interview)

> The way I was thinking last semester, I was trying to teach concepts day after day after day. Now that I have student taught, I have sorta changed my point of view on that, as far as teaching concepts. I would teach them the idea of the concept of whatever, but I would definitely use a skill...I would have them do the skill and let them use the concept that was being taught in that skill. (Rosco, Interview)

Although Rosco's basic conceptualization of the constructs of concepts and skills remained intact, there had been a reorganization in his understanding of their relationship. Concepts and skills were still separate entities, but were no longer related in a simple linear fashion when transforming the content into a lesson.

> I still believe the concepts are the base work. I used skills to illustrate the concepts. Like, everyone could walk. And once they got the concept of fast and slow, we could do that into a roll we would have taught. They knew what this concept was, so put that on the back burner. We

> teach a roll, come back and pick it up, and combine it. We really progressed through gymnastics well like that. I guess I still see them, concepts and skills, as two separate entities but I teach them differently now. I've seen how...I could teach a concept. But to have a progression you have to have something they can really grasp on to...I feel if I did see that last semester I would have understood how you have to use a skill to get them to understand the concept better. I learned the hard way. Trying to teach a concept to the kindergarten who has no abstract thought processes. It's impossible. You have to give them something concrete they can see...I still believe the concepts were important, but I went about teaching them differently. That is what changed, how I presented it to the kids. (Rosco, Interview)

This type of knowledge structure change in learning has been referred to as tuning, or the slow, minor modification and refinement of a schema to bring it into congruence with functional demands (Rumelhart & Norman, 1978; Shuell, 1985). The organization of Rosco's subject matter knowledge structure remained relatively stable throughout the semester. He continued to make connections between the content of immediate lessons and the content of future lessons in an effort to provide children with a useful repertoire of movements. His division of the subject matter into concepts and skills remained as a central organizing feature of his subject matter knowledge structure. When Rosco's knowledge structure changed through tuning, the basic relational structure of the schema remained unchanged (Rumelhart & Norman, 1978).

What had changed in Rosco's knowledge structure was a modification of the relationship of concepts and skills when transforming the content when teaching for learning. In other words, Rosco had learned that the functional demands of teaching the subject matter required a different understanding of the relationship between concepts and skills within the structure of a lesson.

Rosco was beginning the evolution towards the development of practical, pedagogical content knowledge (Shulman, 1986, 1987). He had begun the task of reorganizing his conceptualization of the subject matter into a form appropriate for representing and presenting content to children.

Summary

The preservice teachers who were the focus of this chapter began the semester with an orientation towards teaching for learning which guided and bounded their knowledge growth throughout the semester. Their developing classroom management knowledge was grounded in their understanding that management and control were antecedent and fundamental to instruction and learning. Their sense of their own agency in their classes gave them the internal support necessary to begin to focus beyond themselves and towards the facilitation of the children's learning.

Because these preservice teachers were oriented towards learning, they were able to strengthen the connections within their subject matter knowledge structures, rather then spending their intellectual and emotional energy primarily on control and survival. They developed their own images of where the movement content of their field experience lessons would be going in future lessons and how it related to necessary prerequisite content and the children's prior learning. They also reflected on the effect of their ability to communicate where the movement content was going to the children on the children's learning. They had also developed a mental picture, or visual representation,

of what they expected the movement content to look like even if it did not always match the children's actual movement responses during their lessons.

One preservice teacher went beyond the reflections of the others and was able to articulate his own construction and conceptualization of the subject matter of physical education. He transformed the material of his preparatory coursework, which was based on the progression of Laban's movement themes (Logsdon et al., 1984), into his own conceptualization of the subject matter as either movement concepts or skills (Gallahue, 1987; G. Graham et al., 1987; Nichols, 1986, 1990; Thomas et al., 1988). As a result of the continued praxis of teaching concepts and skills, he reorganized his understanding of their relationship within the context of the act of teaching in the classroom.

CHAPTER VII

PRESERVICE TEACHER DEVELOPMENT: CHANGES AND GROWTH DURING A FIELD-BASED METHODS COURSE

The concept of development can be defined simply as change and growth over time. The experiences of the preservice teachers in this study suggest that preservice teacher development occurs in several areas and in a consistent direction. This view is based on the similarities which emerged between both groups of preservice teachers as the semester progressed. Allison, Dawn, and Bob exhibited many of the characteristics, albeit less developed, of Chris, Kathy, Rosco, and Rusty by the end of the semester. Four areas of preservice teacher development have been identified in this study: a) inclusion of the self in knowing, b) development of classroom management knowledge, c) development of an image of the subject matter, and d) development within the knowledge components of pedagogical content knowledge.

Inclusion of Self in Knowing

The experiences of the preservice teachers in this study suggest that preservice teachers develop towards the inclusion of the self in knowing. The inability to include the self in the construction of knowledge is a central characteristic of received or dualistic knowers (Belenky et al., 1986; Blanchard-Fields, 1989; Labouvie-Vief, 1984; Perry, 1970). Belenky et al. suggested the term received knowledge to describe a perspective in which individuals

> conceive of themselves as capable of receiving, even reproducing, knowledge from the all-knowing external authorities but not capable of creating knowledge on their own (p. 15).

In addition to the Belenky et al. definition, received knower responses are characterized by an absolutist and dualistic perspective in which there is only one correct answer or one correct account of an event, the justification of beliefs by reference to authorities who are presumed to know the truth, and the inability to allow or consider one's own subjectivity (Blanchard-Fields, 1989; Kitchener & King, 1981; Perry, 1970).

Allison, Dawn, and Bob struggled early in the semester with an inability to include themselves in their own knowing and to see themselves as part of the teaching context. For example, Allison, Dawn, and Bob tended to attribute responsibility for their struggles and problems in the classroom to the children rather than examining the effects of their own decisions and actions within the lesson. If preservice teachers perceive that only one account of an event is correct and the self is not involved in the construction of the teaching context, then the attribution of problems to the children is a likely result (Glassberg & Sprinthall, 1980).

Allison, Dawn, and Bob also expressed a lack of confidence and an inability to see themselves as an authority. They determined what was important to learn and to teach through what teachers and textbooks told them rather than by relying on their own values, knowledge, or goals. It was not uncommon for these three preservice teachers to plan their lessons by selecting

tasks, series of tasks, or sample lesson plans verbatim from their planning resources. Their persistent dependence on external authorities for learning early in the semester served to undermine the transformation of their knowledge base into forms required for teaching children.

Constructed knowledge, on the other hand, is described by Belenky et al. (1986) as "an effort to reclaim the self" (p. 134). Constructed knowing is characterized by the acceptance and consideration of multiple perspectives, the view of knowledge as contextual and interpretive, and the responsibility for one's thinking related back to the self (Blanchard-Fields, 1989; Hunt, 1975; Kitchener & King, 1981; Perry 1970). Teachers who are more constructed knowers have been found to demonstrate increased self-direction, independence, and autonomy (Glassberg & Sprinthall, 1980).

The preservice teachers in this course either moved towards a greater sense of self-responsibility during the semester or continued to learn as a result of the self-responsibility with which they started. Near the end of the semester, Allison, Dawn, and Bob became aware of their tendency to blame the children and began instead to examine their own lack of knowledge and their own decisions and actions within the lesson. In a similar study of preservice teachers in a field-based methods course, Rovegno (1990) found that while preservice teachers initially blame the children for classroom problems, they develop in the direction of becoming more "secure and successful enough as teachers to take responsibility for what was happening" (p. 25).

The second group of preservice teachers, Chris, Kathy, Rosco, and Rusty, entered the methods course believing that the teacher was responsible for the success, failure, and problems in the lesson. There was a resistance on their part to attribute responsibility to the students for the events of their lessons. These four preservice teachers primarily focused on their own teaching decisions and actions and the effects of those decisions and actions on classroom events. Chris, Kathy, Rosco, and Rusty were able to design tasks and lessons without exclusive reliance upon teachers and textbooks. In other words, they were able to integrate resources and consider their own values and goals in their planning.

Once preservice teachers are able to put themselves "back into the process of thinking" (Belenky et al., 1986, p. 136), they are better equipped to expand their knowledge of teaching. Experienced teachers' knowledge has been referred to as both personal and practical (Elbaz, 1981; Clandinin, 1985). The self-construction of knowledge for teaching (i.e., the elaborate and interconnected knowledge structures for classroom management, subject matter, and the learner) is the hallmark of the expert teacher. In this study, the development towards greater inclusion of self in knowing was a necessary and fundamental aspect of preservice teachers' growth towards expertise in teaching.

Development of Classroom Management Knowledge

One critical aspect of preservice teachers' knowledge development was in the area of classroom management. Both groups began the semester with

relatively undeveloped schemata for classroom management. Expert teachers' knowledge structures have been found to include a repertoire of skills and routines for effective organization for learning (Leinhardt & Greeno, 1986; Yinger, 1979, 1980). Novices, on the other hand, often have not developed an organizational repertoire in memory to draw upon (Leinhardt & Greeno, 1986; Reynolds, 1992).

The lack of classroom management knowledge can impact preservice teachers differently. For the first group of preservice teachers in this study, lack of classroom management knowledge contributed to their sense of being out of control. When Allison, Dawn, and Bob commented on management problems, for example, they focused heavily on their need to feel a sense of control. Although there were rare moments when the second group of preservice teachers commented on feelings of being out of control, they focused primarily on the impact their lack of classroom management knowledge had on their ability to establish an environment in which they could teach and the children could learn.

Regardless of the impact of the lack of classroom management knowledge, both groups of preservice teachers in this study did develop in the direction of increased classroom management knowledge. Two primary changes occurred in their classroom management knowledge structures. First, the preservice teachers began to increase their repertoire of managerial skills. Although several factors certainly contributed to their management knowledge growth, two primary contributors are addressed: a) the impact of the methods

course and b) the preservice teachers' own teaching experiences. A significant part of the methods course emphasis was on managerial decision making. Much on-campus class time was spent discussing managerial options and reviewing tapes and events with the intent of bolstering the preservice teachers' management skills. The areas of management which the preservice teachers commented on (e.g., equipment distribution, spatial considerations, organizational patterns, timing and pacing) can be directly traced to this methods course emphasis.

Berliner (1987) concluded that experience serves as a good teacher for novices and can affect growth towards expertise. Teachers' knowledge has been called event-structured, that is, teachers' knowledge is "tied to specific events they have experienced in classrooms" (Doyle, 1990, p. 355). The preservice teachers' growing classroom management knowledge was highly influenced by their own teaching experiences and their struggles with this issue. It was through their reflection on their teaching experiences and struggles with management that they began to make connections between their own managerial decisions and actions and the children's behavior and learning.

The second change in the preservice teachers' classroom management knowledge was their recognition of the importance of routines. They commented on devoting time "in the beginning" to such managerial problems as distributing equipment, organizational patterns, and rules for class conduct. Routines in the classroom are frequently associated with experienced and expert teacher planning and teaching (Berliner, 1987; Reynolds, 1992; Yinger,

1980). While the preservice teachers in this study were unable to actually establish routines in their teaching in the same manner as experts, they all came to recognize and understand the importance of routines in their future teaching.

The preservice teachers' development of classroom management knowledge served each group differently. For the first group of preservice teachers, their management knowledge served as a critical mediator in their shift from an orientation of teaching as control to a concern for teaching for learning. Similarly, Bullough (1987) found that increased confidence in the ability to manage a classroom effectively was an important factor in the transition from a survival stage of concerns to a mastery stage. The second group of preservice teachers found that their growing classroom management knowledge and skill enabled them to fulfill their orientation towards teaching for learning. In both groups of preservice teachers, however, learning to organize children for teaching served as the foundation for further attention on learning to teach subject matter (Feiman-Nemser & Parker, 1990; Hollingsworth, 1989).

Development of an Image of the Subject Matter

The construct of image in the literature on teachers and teaching has been approached from a variety of perspectives (Calderhead, 1989). Clandinin (1985) and Elbaz (1981) suggested a conceptualization of teacher image as a metaphor which is embodied and enacted in teaching. From this perspective of image "the teacher's feelings, values, needs, and beliefs combine as she

formulates brief metaphoric statements of how teaching should be" (Elbaz, 1981, p. 61).

Calderhead (1989) discussed another perspective of teacher image based on the images student teachers possess about models of teaching. These models are often based on memories of prior teachers upon which student teachers draw as they interpret their own and others' practice. Similarly, image has been used to mean the visual memories of children and situations that occur in the teacher's mind during teaching (Calderhead, 1989). Finally, Morine-Dershimer (1979) referred to the concept of lesson images, or the mental picture of the lesson which teachers create during planning and use to guide their teaching.

In this study, image refers to the visual representations of the subject matter in the mind. In other words, the preservice teachers in this study had to develop a mental picture of the movements represented by the words of the subject matter framework in their textbook (Logsdon et al., 1984). Subject matter learning from professional preparation coursework or from textbooks must be transferred from the verbal to the visual in the mind of the teacher. For the preservice teacher, the visual representation of the subject matter in the mind (i.e., the mental picture of the movement content) provides the backdrop for subsequent planning and teaching decisions.

The use of image also refers to a form of conceptual knowledge (Clandinin, 1985) about the subject matter of physical education. Wilson et al. (1987) defined subject matter knowledge as

> the substantive and syntactic structures of the discipline. The substantive structures include the ideas, facts, and concepts of the field, as well as the relationships among those ideas, facts, and concepts. The syntactic structures involve knowledge of the ways in which the discipline creates and evaluates new knowledge. (p. 118)

This study focused primarily on the developing connections among the substantive structures of the subject matter (i.e., movement) in the contexts of educational games and educational gymnastics. Specifically, image was used to encompass the preservice teachers' mental map, or sense of connection, of appropriate movement content progression.

This study indicated that preservice teachers develop from a disconnected image of the subject matter towards the construction of a more connected image of the subject matter. The preservice teachers' developing mental picture of the movement content and indications of growing connectedness in their subject matter knowledge structure were evident as the semester progressed.

<u>The development of a visual representation of the subject matter</u>

The findings of this study indicate that some preservice teachers in a field-based methods course may lack a mental picture of what the movement content actually looks like when being performed. Allison, Dawn, and Bob began the semester with the common and pervasive sense of not knowing what they were looking for when planning or teaching their lessons. Without a mental picture of the movement content (i.e., movement patterns), they were unable, when planning or teaching, to develop any expectations for the children's movement in their lessons.

> I need to learn what I'm looking for. A lot of times, you know, I go out there and I don't really know what I'm looking for. I need to be, before I go out there, I need to think about it more and I need to decide exactly what it is that I'm wanting to see...I want to be a teacher that knows what I want, what I'm looking for...(Allison, Interview)
>
> ...I didn't know what I wanted to see. Did I want them to just finish the lesson? Did I want to see skillful movement? Did I want them to behave well? It varied from day to day. No, I didn't. You should have that clear focus for every lesson you teach. Mine kinda changed with the moods! (Dawn, Interview)

One of the results of this lack of image was their frequent tendency to plan very open and unlimited tasks. The children's inability to respond appropriately to such tasks often contributed to the preservice teachers' feelings of being out of control.

In contrast, the struggle with not knowing what to look for did not emerge as a salient issue for Chris, Kathy, Rosco, and Rusty. These four preservice teachers entered their field experience lessons with a set of expectations of what the movement content should look like in the children's responses.

> One task was I wanted them to walk toward each other, come to a complete stop, and go off in a different direction. I had it pictured as if there would be a few here and a few here. Picture perfect. They were like (slaps hands together in front of him) right in the middle...My tasks were not thought out as much as they should be, as much as I thought they were. (Rosco, Reflection Session)

What they discovered was that the visual representation of the movement in their mind often did not match the actual movement responses of the children during the lesson. They had not yet developed a set of memories, or schema, of

how children actually respond to and learn specific movement content. These four preservice teachers did, however, have a visual image of their lesson content in mind when planning and teaching.

Late in the semester, Allison's, Dawn's, and Bob's comments indicated that they were beginning to plan and teach on the basis of their developing mental pictures of the movement content; in other words, they were beginning to know what they were looking for. Instrumental in this change was a focus on increased specificity during planning and a reduction of student decision making in the task structure. There is evidence to suggest that novice teachers' knowledge becomes more detailed with teaching experience, thus enabling them to better know what they are looking for (Bullough, 1987; Rovegno, 1989, 1992b). Perhaps attention to specificity in the design of tasks for teaching helped embed visual representations of the movement content within these preservice teachers' subject matter knowledge structures.

For several of the preservice teachers in this study, the problem was not just the lack of a schema of children's movement responses, but was the lack of a template, or a mental picture, of what the movement content should look like. Similar to the preservice teachers in Rovegno's (1992b) study, the preservice teachers in this study "did not know what the children's movement patterns would look like" (p. 74). It should be noted that both groups of preservice teachers in this study had seen and experienced the movements represented by the words in the subject matter framework (Logsdon et al., 1984) during their prerequisite content course in the previous spring. They also reviewed

experientially some of the games subject matter in the teaching gymnasium early in the methods course semester. Yet, for some preservice teachers, these experiences were not enough to ingrain the visual representations of the subject matter necessary for transforming the subject matter for teaching. Several authors have pointed out that preservice teachers often have not adequately learned their subject matter before they begin teaching (Buchmann, 1984; Fieman-Nemser & Parker, 1990; Reynolds, 1992). This study emphasizes the importance of providing preservice teachers with opportunities to transform the subject matter from the words of texts and professors into the visual representations of movement which provide the ground for planning and teaching in physical education.

Development of More Elaborate and Connected Subject Matter Knowledge Structures

Another aspect of preservice teacher development in this study was the move from disconnected subject matter substantive structures to more elaborate and connected substantive structures. One primary indication of novice teachers' disconnected subject matter knowledge structures is their tendency to plan and teach lessons as isolated, discrete entities (Reynolds, 1992; Westerman, 1991).

Westerman (1991) found that novice teachers did not plan lessons in relation to past and future lessons. Similarly, Allison, Dawn, and Bob began the semester planning and teaching with a focus on the immediate lesson only. They had no sense or image of where the movement content they were teaching

was going nor did they take into consideration the prerequisite content necessary for their lesson content selection to be appropriate. Allison, Dawn, and Bob had not yet developed a sense of the subject matter as a whole; in other words, their subject matter knowledge was disconnected. They understood parts of the subject matter framework (Logsdon et al., 1984) as pieces to be taught, but were not yet able to situate these pieces within a broader, more connected conceptualization of the subject matter. Perhaps their lack of visual representations of the movement content was a factor in their inability to connect their lesson content to prerequisite or future content.

Chris, Kathy, Rosco, and Rusty, in contrast, entered the semester concerned about teaching connected lessons. They connected their lesson content selection to their own image of what would be taught in future lessons. They also took into consideration the movement content which should have been previously taught for their lesson content to be appropriate.

> With the games...as far as planning goes, I like having a game in mind and then working backwards from that, as far as picking out components and having them work on those components until it gradually leads up to the game...It appeals to me because it seems to be a systematic way of approaching something rather than just teaching a few things and then letting them play. (Chris, Interview)

These four preservice teachers were able to link their visual representations of the movement content into a mental map, or image, of appropriate progression. Late in the semester, Allison, Dawn, and Bob began to exhibit similar indications of connected lesson planning.

Wilson et al. (1987) pointed out that expert teachers' knowledge structures exhibit greater connection and relationships among ideas, facts, and concepts within a subject matter area. The findings of this study suggest that preservice teachers' subject matter knowledge structures developed in elaboration and connection during a field-based methods course. Subject matter knowledge was elaborated through the development of visual representations of the movements represented by the Logsdon et al. (1984) subject matter framework. The development of more connected subject matter knowledge structures was indicated by the preservice teachers' ability to contextualize their lesson content by situating it within an understanding of prerequisite and future content (Reynolds, 1992; Westerman, 1991). The development of a visual image of the movement content may be fundamental to preservice teachers' ability to link these images in progression.

Development Within the Components of Pedagogical Content Knowledge

Pedagogical content knowledge consists of several knowledge components which are said to be integrated in the act of teaching (Marks, 1990). Marks suggested that pedagogical content knowledge comprises four areas of knowledge: subject matter knowledge, knowledge about student's understanding of the subject matter, knowledge about media for instruction, and knowledge of instructional processes.

Several studies have indicated that preservice teachers have not yet developed pedagogical content knowledge and that this lack of knowledge

affects their teaching during field experiences (Borko & Livingston, 1989; Carter, 1990; Grossman & Richert, 1988; Rovegno, 1992b). The reflections of the preservice teachers in this study confirm the findings of such previous studies. Preservice teacher development in this study did occur within two of the components of knowledge which are combined in the construct of pedagogical content knowledge: a) subject matter knowledge and b) knowledge of the learner (Marks, 1990). Knowledge of instructional processes was the knowledge component within which the preservice teachers did not exhibit growth.

Subject matter knowledge

Subject matter knowledge is a foundational component of teacher's pedagogical content knowledge, and without it, the activities of teaching can not proceed (Ball & McDiarmid, 1990; Buchmann, 1984). Wilson et al. (1987) suggested that pedagogical content knowledge is framed by a conceptualization of the subject matter. Only one of the seven preservice teachers in this study was able to articulate his conceptualization of the subject matter of physical education. He divided the subject matter into concepts and skills and constructed an understanding of the progressive relationship between them. Embedded within Rosco's subject matter conceptualization was the belief that the purpose of teaching was to use concepts and skills to help students develop the fundamental repertoire of movements that would be required in future, more complex lessons. Shulman (1987) and Marks (1990) suggested that one important aspect of the subject matter knowledge component of pedagogical

content knowledge is the ability to understand and articulate a sense of value and purpose for what is being taught. Rosco's construction of a conceptualization of the subject matter provided the frame for his perception of the value and purpose of specific content.

The remaining six preservice teachers did develop more elaborate and connected subject matter knowledge structures during the semester. Although they were unable to articulate a coherent conceptualization of the subject matter in the same manner as Rosco, they did develop clearer mental pictures of the movement content and were able to connect those images in a sense of appropriate progression. Perhaps Rosco's ability to articulate a more comprehensive conceptualization was an indication that he was a step farther along the road towards the position of constructed knowing (Belenky et al., 1986).

Knowledge of the Children

Knowledge of the learner is another essential component of pedagogical content knowledge (Marks, 1990; Shulman, 1987). In order for teachers to represent the subject matter to students in a manner that is comprehensible to them, teachers must possess knowledge of how students understand the subject matter (Feiman-Nemser & Parker, 1990; Marks, 1990; Shulman, 1987). This knowledge consists of students' common misunderstandings, students' developmental capabilities, what students typically find easy or difficult, how students tend to approach the process of learning, and how students typically make sense of new content (Marks, 1990; Rovegno, 1992b; Wilson et al., 1987).

Knowledge of the learner essentially includes the ability to understand the subject matter from the children's perspective (Feiman-Nemser & Parker, 1990).

Both groups of preservice teachers in this study began the semester with a lack of knowledge of the learner. This lack of knowledge affected each group differently. For the first group of teachers, the lack of knowledge of the learner intensified their focus on the issue of control. Early in the semester, Allison, Dawn, and Bob were unable to consider the children's perspectives during their field experience lessons. This inability may have been an important contributing factor in their tendency to attribute responsibility for classroom problems to the children. Instead of considering how the children understood, or misunderstood, the teacher's directions or tasks, they saw the children as willfully causing problems. Allison, Dawn, and Bob often focused on their lack of knowledge and expectations of the children's behavior, rather than knowledge of how children respond to particular content.

Allison's, Dawn's, and Bob's inability to consider the children's perspectives of the subject matter may also have contributed to their inclination to teach their field experiences as if each lesson were disconnected from past and future lessons. Westerman (1991) found that one factor in novice teachers' tendency to plan lessons as discrete entities was because they did not have a well-developed theory of instruction nor a sense of how students learn specific content.

For the second group of preservice teachers, lack of knowledge of the learner was a concern because of its effect on their ability to teach so the students could learn. Chris, Kathy, Rosco, and Rusty recognized very early in the semester that problems often arose as a result of the children's misunderstanding of tasks or directions. These four preservice teachers' growing awareness of the importance of considering the children's perspective in their teaching manifested itself in two ways.

First, they began to reflect consciously on their own inability to communicate to the children in a manner that was comprehensible to them. In response to this realization, they reviewed and verbally practiced their planned directions and tasks prior to the lesson. The preservice teachers' intent was to discover words, phrases, or concepts which they assumed that the children would understand. In their effort to make this discovery, they attempted to listen to themselves through the children's ears.

Second, all four of these preservice teachers were committed to making the subject matter meaningful to the children. They believed that it was important to inform the children of the purpose and direction of the lesson. In a similar effort to make the subject matter meaningful to the children, they consciously took the children's prior background and skillfulness into consideration when planning their field experience lessons. Chris, Kathy, Rosco, and Rusty arrived at these beliefs and behaviors through their ability to consider learning from the children's perspective.

Near the end of the semester, the first group of preservice teachers began to make comments similar to those of Chris, Kathy, Rosco, and Rusty. As a result of their growing ability to consider the children's perspectives in their planning and teaching, Allison, Dawn, and Bob stopped blaming the children, altered their task structure, and began to consider the children's prior learning and skillfulness in their planning.

The ability to consider others' perspectives is a function of cognitive development. The acceptance and consideration of multiple perspectives is at the heart of the transition from received, dualistic knowing to constructed, relativistic, committed knowing (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener & King, 1981; Labouvie-Vief, 1984; Perry, 1970). The preservice teachers' increasing awareness of and ability to consider the children's perspectives in their teaching was another indication of their growth towards constructed knowledge for teaching.

If expertise were conceptualized as a developmental continuum, then it could be said that preservice teachers can exhibit similar but less developed characteristics of expert teachers during a field-based methods course. Research has indicated that expert teachers consider their students' prior knowledge as a starting place in their teaching (Berliner, 1987; Fogarty et al., 1983; Reynolds, 1992; Westerman, 1991). Similarly, Westerman found that expert teachers' ability to plan lessons in relation to past and future lessons was linked to the ability to consider the subject matter from the children's perspective. Perspective taking has also been linked in the literature to

teachers' ability to be responsive to students, that is, their ability to read students' cues and characteristics and adjust their teaching and communication to the students (O'Keefe & Johnston, 1989; Sprinthall & Thies-Sprinthall, 1983).

The preservice teachers in this study did begin to consider their students' prior learning, to connect their lessons to past and future lessons, and to adjust their communication to the students as they became more aware of the children's perspectives. These expert characteristics were just beginning to emerge in these preservice teachers, although not yet interconnected and automatic as they are in expert teachers (Berliner, 1987; Borko & Livingston, 1989).

Lack of Development of Instructional Processes for Representing Movement Content to Children

The ability to read students and adjust one's teaching accordingly, the very embodiment of pedagogical content knowledge in action, was the area in which the preservice teachers did not exhibit growth. The development of more elaborate and connected subject matter knowledge and the ability to consider the children's perspective of the subject matter was not enough to help the preservice teachers figure out how to help students learn during an actual lesson. Although the preservice teachers had developed their own expectations of what the movement content should look like in the children's responses, they had not yet acquired a "fully developed student schemata" (Berliner, 1987, p. 75) based on actual experiences with children. Their lack of knowledge of

children's common misconceptions and responses to specific movement content resulted in their inability to respond to student cues and left them no recourse but to continue with their lessons as planned. Similar responses have been found in other studies of novice teachers (Leinhardt & Greeno, 1986; Rink, 1989; Rovegno, 1989; Westerman, 1991).

The findings of this study suggest that knowledge growth in other aspects of the knowledge base may precede the development of pedagogical content knowledge. The preservice teachers in this study developed towards the inclusion of self in knowing and became more self-responsible. Knowledge growth in the area of classroom management enabled the preservice teachers to establish a structured environment conducive to freeing their attention for teaching and learning. The preservice teachers began to plan their field experience lessons on the basis of their own expectations of the children's movement responses and their own image of appropriate progression. They also became increasingly aware of and able to consider the children's perspectives and the children's prior learning and skillfulness in their planning. Yet, despite all of their apparent knowledge development, they struggled throughout the semester with their inability to read and flex with the children's movement responses during the actual lesson (Sprinthall & Thies-Sprinthall, 1983).

The first indication of the development of pedagogical content knowledge in this study occurred in the comments of Rosco following his student teaching experience. Rosco changed his understanding of the relatedness of concepts

and skills for teaching during the course of this study. Rather than teach concepts as prior to and separate from skills, Rosco came to understand that children learn best when concepts and skills are presented as interrelated within the structure of a lesson. It was not until after student teaching, however, that he was able to articulate this aspect of his knowledge concerning how best to present the subject matter to children for learning. Although he was able to articulate his conceptualization of the subject matter and began to restructure his understanding of concepts and skills during the methods course, he continued to struggle throughout the methods course semester with his inability to respond to children's movements during the lesson.

Rovegno (1991) found that preservice teachers began to go after learning as a result of their developing pedagogical content knowledge. In this study the preservice teachers' orientation to go after learning was supported by their knowledge growth within the components of pedagogical content knowledge. Feiman-Nemser and Buchmann (1986) suggested that pedagogical thinking depends on and is "grounded in knowledge of self, children, and subject matter" (p. 239). The findings of this study suggest that preservice teachers do begin to develop the knowledge base required for the pedagogical thinking of expert teachers during a field-based methods course.

CHAPTER VIII

IMPACT OF REFLECTION AND IMPLICATIONS

Potential Impact of Teacher Reflection on Preservice Teacher Development

The reflection session experiences designed for this study may have played an important role in these seven preservice teachers' changes and growth throughout the semester. Several linkages between the reflection experiences and the preservice teachers' development can be drawn.

One link that can be made is the relationship between my orientation towards teacher reflection and the areas in which the preservice teachers developed. My orientation towards teacher reflection in this study could be described as a combination of academic and developmentalist perspectives (Zeichner & Tabachnick, 1991). In several ways the preservice teachers' development reflects the priorities of these two traditions of reflective practice. One of the predominant areas of preservice teacher development in this study was their growing ability to make connections within their subject matter knowledge (i.e., connecting their lesson content to past and future lesson content) when planning and teaching. Secondly, the preservice teachers' knowledge of the children developed to the degree that they became better able to take into consideration the children's perspectives and prior learning in their

lessons. Each of these areas of changes and growth can be linked to the foundational orientation of the reflection sessions designed for this study.

Several critical aspects of the reflective process within the reflection sessions appeared to be associated with the preservice teachers' changes and growth throughout the semester of this study. First, the reflective process inherently emphasizes the inclusion of self in one's knowing (Boud et al, 1985a; Boyd & Fales, 1983; Osterman, 1990; Rovegno, 1992a). Several characteristics of the reflection experiences designed for this study emphasized this aspect of teacher reflection. For example, the preservice teachers were asked to reflect on and articulate the values, goals, intentions, and rationales underlying their teaching decisions and actions as a way of encouraging them to include themselves in their own thinking. They were also encouraged and prompted to find their own answers, solutions, and alternatives to classroom situations. Moreover, they were prompted to examine the effects of their own decisions and actions within the lesson in order to get them to see themselves as a part of the teaching context.

The second critical aspect of the reflective process in this study was the effort to encourage the preservice teachers to consider and make connections among the many factors influencing their planning and teaching. At some point all of the preservice teachers in this study demonstrated the ability to connect lesson content to past and future lessons, to consider the children's prior learning and skillfulness, to connect their actions to their values and

goals, and to draw on other knowledge base information (e.g., motor development, motor learning, educational psychology).

The preservice teachers were also encouraged to consider alternative explanations (i.e., multiple perspectives) for events in their lessons, such as exploring aspects of their teaching from the children's perspective. When the preservice teachers in this study realized that classroom events could be considered from more than one perspective, they shifted from blaming the children for classroom problems to considering the effects of their own actions and decisions on the children and the lesson. Several preservice teachers also began to consider how to make the movement content more meaningful to the children. Reflection has been linked to teachers' shift from the interpretation of classroom events from a teacher perspective to the interpretation of events from a pupil perspective (Kottkamp, 1990). The preservice teachers' knowledge growth in this study may have been associated with the reflection experiences designed to encourage the conceptual recognition of multiple perspectives and the relationships among ideas, values, and events.

The preservice teachers' changes and growth in this study were, in several ways, indicative of a change in epistemological position (Belenky et al., 1986). Their inclusion of self in knowing, ability to consider multiple perspectives, awareness of contextual variables, and ability to make connections among ideas and events suggest growth towards more constructed ways of knowing (Belenky et al., 1986; Blanchard-Fields, 1989; Kitchener &

King, 1981; Koplowitz, 1984). The reflective process has been linked to these types of changes.

> Reflective practice, in a sense, encourages us to seek a different and more effective way of knowing, and to become 'constructed' knowers...By emphasizing the importance of experience and self, reflective practice encourages constructed knowing...Reflective practice and constructed knowledge both maintain the importance of careful systematic observation and conscious, deliberate and rational analysis. They also incorporate those subjective aspects of experience which have typically been excluded from consideration, and this inclusion enriches rather than dilutes the search for meaning (Osterman, 1990, p. 144)

It is important to consider also the influence of the methods course learning experiences on the preservice teachers' changes and growth in this study. Although reflection was not mentioned explicitly in the methods course objectives or outline, there were aspects of the methods course experiences which encouraged reflective thinking. For example, the preservice teachers were asked to write and discuss their philosophy about children's physical education at the beginning and end of the course. The identification of the variety of contextual influences on children's behavior and the exploration of alternative solutions to management problems were emphasized. The professor encouraged the preservice teachers to connect their management and content decisions to their goals and their knowledge of the children. Preservice teachers were also encouraged to decide for themselves what content they would teach and, near the end of the semester, to identify the movement cues during planning they would be emphasizing in the lesson.

There were several significant differences between the reflection sessions and methods course experiences which encouraged reflective thinking. Perhaps the most significant difference was the role that reflection played in the methods course as opposed to the reflection sessions. Although the examples above indicate that experiences which encouraged reflective thinking were a part of the methods course, they did not occupy a consistent and significant share of the methods course experiences. Considerable time was spent on other aspects of the course as well, such as reviewing old or covering new material (e.g., movement themes, types of feedback, types of assessment) or planning for upcoming field experiences. Attention was given to a variety of priorities within the methods course and only a portion of time could be devoted to the provision of opportunities for active and systematic reflection. The reflection sessions, as designed for this study, were able to provide experiences for that purpose alone.

Furthermore, the methods course reflection experiences can be linked more to the social efficiency tradition in teacher education (i.e., a focus on the thoughtful application of teacher strategies found in research on teaching) than to the academic and developmentalist perspectives that were held in the reflection sessions (Zeichner & Tabachnick, 1991). For example, the emphasis on classroom management strategies and alternatives in the methods course played an important role in the development of classroom management knowledge. While the academic and developmentalist perspectives were given some attention in the methods course and certainly influenced the preservice

teachers' developing knowledge base, these two perspectives did not occupy the central role that they played in the reflection sessions.

The environment within which reflection took place was also significantly different in the methods course class meetings than in the reflection sessions. Methods course experiences which encouraged reflection primarily took place in a very large group (i.e., more than twenty individuals) as opposed to groups of three or four individuals in the reflection sessions. Reflection experiences within the class, by virtue of numbers of people, reduced the opportunity for active, vocal, more individualized reflection and increased the inhibition to engage in public reflective thinking.

> It would be great to come back [in student teaching] and do exactly what we did. I don't think in front of the whole class, it is too hard to open up. I think in front of four people. I couldn't see it being real good over six people. I think it has to be people you feel comfortable with, too. (Rusty, Interview)

> I liked the sessions a lot. It has helped me a lot because you can talk about things that I might not, like when we are in a class, I might not want to bring up some stuff in front of everybody. It is just a lot better. (Allison, Interview)

The reflection session experiences also granted the freedom to think without the cloud of evaluation and grades, an impossibility within the academic structure of a methods course.

A final difference was the amount of time actually spent in active reflective thinking about one's teaching and learning in the methods course as compared to the reflection sessions. The development of reflective thinking requires the provision of adequate time (Korthagen, 1985; Pugach & Johnson,

1990; Richert, 1990; Wildman & Niles, 1987; Wildman et al., 1990). If the preservice teachers' development in this study is linked to their engagement in the reflective process, then the additional and intensive time spent in the reflection sessions may have provided further impetus to their growth than was possible in the methods course alone. If so, optimum preservice teacher development during a field-based methods course may well rest on the opportunity for and quality of reflection on teaching (Wubbels & Korthagen, 1990).

Implications for Teacher Education and Future Research

If preservice teacher development is linked to the experience, process, and orientation of reflection within a field-based methods course, then scrutiny of reflection experiences within teacher education programs is in order. As just discussed, several areas of the preservice teachers' changes and growth in this study were linked to the emphasis and priorities of the academic and developmentalist conceptions of reflection (Zeichner & Tabachnick, 1991). My orientation towards the reflection experiences in this study may have governed the focus of the preservice teachers' reflections and, perhaps, salient areas of their knowledge growth. If reflection experiences are to be a viable aspect of professional preparation courses, the perspectives of reflective practice which guide reflection experiences must be made explicit and considered in light of individual and programmatic goals and orientations.

The relationship of the process of reflection to preservice teacher development is another aspect of teacher reflection which must be understood.

The reflection process emphasizes the inclusion of the self in knowing, the ability to consider multiple perspectives, and the ability to make connections among concepts and between concepts and actions (Osterman, 1990; Richert, 1990; Ross, 1989; Rovegno, 1992a). The changes and growth experienced by the preservice teachers appeared in some ways to be related to the reflective process as designed in this study. Such indications lend support to the design, implementation, and further study of reflection experiences prior to student teaching in physical education professional preparation programs.

Several models of teacher reflection in preservice teacher education are offered in the literature (Bullough, 1989; Clift et al., 1990; Ross, 1989; Roth, 1989; Tabachnick & Zeichner, 1991). The reflection sessions designed for this study provided a unique model for the inclusion of teacher reflection within a field-based methods course. The reflection experiences in this study took place on a weekly basis, for one hour outside of regular methods course class hours, in small groups of three or four individuals, and was nongraded and voluntary. The facilitator of the reflection session for the participants of this study (i.e., the researcher) was a graduate student who had no connection with the methods course. Three other graduate students who served as coordinators at the field experience sites attended a 1 hour 30 minute workshop on reflection (see Appendix A) and became the facilitators of the reflection sessions for the remaining students in the methods course. To be consistent with the literature emphasizing the need for a safe and supportive environment, it was decided that graduate students would serve as reflection facilitators rather than the

professor who was responsible for evaluation and grading in the course (K.C. Graham, 1991; Richert, 1990; Rovegno, 1992a; Wildman & Niles, 1987). In the design of the reflection sessions, explicit efforts were made to identify the facilitator's conception of reflection and to provide the programmatic conditions necessary to promote reflection: a supportive environment, adequate time for reflection, teacher self-determination, and matching the preservice teachers' way of knowing. Questioning and dialogue were the primary means of facilitating reflection. The field experiences in this study were embedded within the methods course, rather than organized as a teaching practicum which occurred simultaneously with the methods course. The supervisors of the field experiences were university graduate students or professors, rather than school physical education specialists. Elements of this model may serve as helpful indicators of ways to facilitate preservice teacher reflection and development.

The inclusion of experiences designed to have preservice teachers reflect on their values, assumptions, and knowledge about teaching and learning has also been linked to the concern that beginning teachers have a tendency to return to a custodial orientation towards teaching (Bain, 1989; K.C. Graham, 1991; Tabachnick and Zeichner, 1984; Templin, 1981; Zeichner and Grant, 1981). The preservice teachers in this study either developed or maintained an orientation towards teaching for learning during the semester of their field-based methods course. They became more self-responsible and less blaming, developed a sense of managerial competence, and developed a concern for

presenting the subject matter to students for learning. Studies have shown that reflection encourages a sense of empowerment in teachers as they gain greater control of their classroom practices and promotes an increased belief in teachers' abilities to effect students' learning (Nolan & Huber, 1989; Wildman & Niles, 1987). Further study is warranted concerning the potential impact of reflection experiences prior to student teaching on student teachers' orientations towards teaching.

The findings of this study also point out the importance of attending to the cognitive development of preservice teachers. The changes and growth experienced by these preservice teachers can be linked to development between epistemological positions. This study particularly points out the importance of helping preservice teachers include themselves in their own knowing. Pedagogical thinking depends on the ability to construct one's own knowledge about the teaching context and to understand one's place in it. To include themselves in their own knowing puts preservice teachers in the position of more self-responsibility and less external blame, more reliance on self for knowledge and less dependence on external authorities (Belenky et al., 1986; Hunt, 1975; Glassberg & Sprinthall, 1980). The preservice teachers' changes and growth during this study can also be linked to their ability to consider multiple perspectives and to make connections and find relationships among the ideas and events of the learning and teaching experiences (Blanchard-Fields, 1989; Kitchener & King, 1981; Koplowitz, 1984).

Helping preservice teachers move from a received way of knowing to a more constructed and contextual way of knowing requires that teacher educators attend to the different cognitive developmental levels within their classes (Rovegno, 1992a; Sprinthall & Thies-Sprinthall, 1983). Just as motor development is part of the foundational knowledge base of physical education teachers, perhaps adult cognitive development should be part of the fundamental knowledge, a part of the pedagogical content knowledge, of teacher educators (Sprinthall & Thies-Sprinthall, 1983). Little is currently known about how best to structure learning experiences to facilitate the cognitive development of adults. Further inquiry into appropriate ways to respond to preservice teachers and structure their learning experiences in order to help them become more constructed knowers about their own teaching is warranted.

This study also speaks to preservice teachers' knowledge growth during a field-based methods course. A critical finding of this study is that for these preservice teachers the development of classroom management knowledge, subject matter knowledge, and knowledge of the learner may have preceded the development of pedagogical content knowledge. The transition to pedagogical thinking requires that preservice teachers integrate these components of knowledge into pedagogical content knowledge in the act of teaching (Marks, 1990; Shulman, 1987; Wilson et al., 1987). How best to facilitate growth in these components of pedagogical content knowledge is a critical question facing

physical education teacher education. The experiences of the preservice teachers in this study point out several possible areas of focus and concern.

Knowledge of classroom management served a central role in the experiences of the preservice teachers in this study. In both groups of preservice teachers, the development of classroom management knowledge served to support an orientation towards teaching for learning. When preservice teachers are no longer occupied with classroom control, they have increased emotional and cognitive space for knowledge growth in other areas (Fuller & Brown, 1975). Further investigation is needed to explore how and when the issue of classroom management should be addressed and how much emphasis it should receive. Perhaps it is time to listen to the concerns of beginning teachers and provide earlier teaching experiences focused specifically on the issue of classroom management. Caution must be taken, however, not to allow such field experiences to lapse back into a simple technical orientation towards teaching. The development of classroom management knowledge must be situated within a larger context and made explicit in relation to broader educational goals and purposes.

For the preservice teachers in this study, the development of classroom management knowledge enabled them to turn their attention towards the subject matter they were teaching (Hollingsworth, 1989). One important aspect of preservice teacher development is the ability to give meaning to lesson content by situating it within an appropriate progression. Preservice teachers can begin to embed their field experience lessons within an understanding of

past and future lesson content even in field experience situations where they do not teach on consecutive days. Preservice teachers can be encouraged to identify and articulate clearly their image of where the movement content of their lesson is going and to consider the prerequisite content necessary for their lesson content to be appropriate. In this way preservice teachers can be helped to construct a more connected, comprehensive image of the subject matter and give meaning to their lessons in relation to broader subject matter goals.

For several of the preservice teachers in this study, however, one semester of coursework on the subject matter of children's physical education within a human movement conceptual orientation was not enough to ingrain the movement content in a manner accessible for teaching. Programs which approach physical education subject matter from a human movement conceptual orientation must attend to the transformation of the verbal to the visual in the minds of the preservice teachers. Further investigation is needed to discern how this process is best facilitated. Perhaps it is also time for physical education to delineate more clearly the subject matter of teaching and provide coursework and experiences equitable to other academic content areas in education.

Finally, the findings of this study lend strong support to the suggestion that the central component of pedagogical content knowledge is knowledge of the children and how children learn and understand the subject matter (Feiman-Nemser & Parker, 1990; Marks, 1990). Although the preservice teachers in this study had or developed a visual representation of the

movement content in their minds upon which they based their planning, they lacked schemata for children's actual movement responses, developmental capabilities, and typical misunderstandings. The development of student schemata has been discussed as the focal point of pedagogical thinking.

> This knowledge influences how subject matter will be considered, but is in fact an image or knowledge of classrooms that is a separate kind of knowledge. It is a knowledge that influences the running of the classroom: the pace, the level of intellectuality, affect, work orientation, and so forth. It is knowledge that influences classroom organization and management and is the basis for transforming subject matter. (Berliner, 1986, p. 10)

The need for this knowledge component as a precursor to the development of pedagogical thinking points out the importance of providing opportunities to teach within a field-based methods courses and experiences focused on the observation of children. Attention and reflection must be focused specifically on children's movement responses if preservice teachers are to be helped to develop a student schemata that is the foundation for pedagogical thinking.

Berliner (1986) has suggested that expertise in teaching takes a long time to develop. The preservice teachers in this study exhibited several characteristics ordinarily associated with expert teachers. Certainly these characteristics in preservice teachers are not yet stable and will continue to grow and regress as they traverse different situations in their journey through student teaching and the first years of teaching in schools. Perhaps these characteristics will serve as cognitive links for later learning in their growth towards expertise. The preservice teachers' changes and growth in this study

point out the importance of heeding the call made by Borko and Livingston (1989) for the design of appropriate educational experiences in preservice teacher education:

> [T]eacher preparation programs should take into account not only what is known about the thinking and actions of experts, but also what is known about novices and the process by which novices become experts. Programs should design experiences for novices at various stages in the process of learning to teach and sequence those experiences to ensure a match between learner readiness and task demands. (p. 492)

This study serves as an addition to the growing knowledge base within teacher education focused on fostering the development of reflective, pedagogically thinking preservice teachers.

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APPENDIX A

WORKSHOP ON REFLECTION SESSIONS:

DEFINITIONS, THEORY, & STRATEGIES

I. Definitions of Reflection

A. "Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it..."(Dewey, 1933).

B. "...what a teacher does when he or she looks back at the teaching and learning that has occurred, and reconstructs, reenacts, and/or recaptures the events, the emotions, and the accomplishments. It is that set of processes through which a professional learns from experience...It is likely that reflection is not merely a disposition or a set of strategies, but also the use of particular kinds of analytic knowledge brought to bear on one's work". (Shulman, 1987).

C. "At a general level, reflection is defined as a way of thinking about educational matters that involves the ability to make rational choices and to assume responsbility for those choices". (Ross, 1989).

D. Schon (1983, 1987) has proposed reflection as:
a) Reflection in action - the response to a surprise in the midst of action in which one reshapes and reframes what is happening and experiments on the spot with new actions, leading to either intended results or new surprises.
b) Reflection on action - actions are planned on the basis of post hoc thinking and deliberation.

II. Why Reflect?

A. Reflection is an inherent aspect of reclaiming teachers as thinkers, not just as skilled technicians. Schon (1983, 1987) has suggested that the "technical rationality" of professional knowledge has reduced professional activity to "problem solving made rigorous by the application of scientific theory and

technique" (1983, p. 21) (i.e. based on assumptions of the predictability and control of practical situations). Instead, he proposes that practitioner's professional knowledge is displayed in the messy, indeterminate zone of practice where situations are uncertain and unique. Reflective decisions are required, rather than application of scientifically determined solutions, if practitioners are to respond appropriately.

B. Reflection has been included in teacher education on the basis of a value perspective that embraces the characteristics of reflection as those essential to the process of teaching and learning (Elbaz, 1988). Shulman (1987) views reflection as a central aspect of pedagogical reasoning, as the bridge from the reasoning of one teaching episode to the next.

C. As such, reflection is the space in which practitioners pull together their knowledge base (Shulman, 1987):

1. Disciplinary and content knowledge
2. Pedagogical knowledge
3. Pedagogical content knowledge (knowledge of transforming content knowledge into instruction)
4. Knowledge of the learners
5. Knowledge of the teaching context
6. Knowledge of general and personal educational values

D. Reflection is necessary in order to make learning from experience conscious, thus enabling practitioners to make conscious teaching decisions, rather than decisions made on the basis of routine, tradition, and authority (Posner, 1985).

E. Therefore, it is hoped that reflection in preservice teacher education will have an effect on stemming the return to custodial orientations as beginning teachers.

F. Lastly, reflection has been considered as an essential element in encouraging teacher confidence, autonomy, and empowerment. It is hoped that the ability to consciously reflect on teaching situations and decisions will lead to a firmer sense of self as teacher.

III. Theory: Characteristics and Process of Reflection

A. Characteristics of Reflection

1. Reflection involves a disposition to reflect, which includes a willingness to reflect (Cruickshank, 1987); a commitment to self-knowledge and growth (Zeichner and Liston, 1987); and open-mindedness, responsibility, and wholeheartedness (Dewey, 1933).

2. The activity of reflection links analysis with action. The focus of reflection is the concrete episodes and events of teaching. Brookfield (1987) suggests that critical analysis is rooted in particular happenings (i.e. specific situations, events, people), rather than vague generalizations and abstract concepts and cliches.

   The concrete events of teaching upon which reflection is focused are to be considered from these three perspectives:

   a. Effectiveness - reflection on the technical application of educational knowledge for the purpose of effectively achieving a given end.

   b. Personal values - reflection oriented for the consideration and clarification of one's own values, cultural experiences, perceptions, assumptions, and prejudgements in relation to actual, meaningful events.

   c. Critical reflection - reflection focused on the moral and political concerns of equality and justice within the cultures and policies of schooling; considered within the context of concrete, actual experiences.

3. Characteristic elements - Reflection involves:

   a. Being able to articulate, in detail, what happened during the teaching episode

   b. Identifying and challenging underlying assumptions and probing where they come from (i.e. culture, previous experience, etc)

   c. Understanding the importance of context when reflecting on events and underlying assumptions.

   d. Imagining and exploring alternatives.

e. Acknowledging that there are multiple perspectives of situations, and demonstrating the ability to view a situation in different ways.

B. Process of Reflection

1. The development of an ability to reflect on one's teaching is linked to the development of adult thought. Figure 1 is an overview of the different perspectives concerning knowledge that adults encounter in their cognitive development.

2. Zeichner and Liston (1987) have proposed a Reflective Teaching Index, based on the reflections of student teachers in their supervisory conferences. They suggest that reflection occurs at different levels:

a. Factual - reflections focused on what happened, or what will happen.

b. Prudential - reflections focused on suggestions of what to do, evaluation of what has been accomplished, alternatives for change.

c. Justificatory - reflections focused on the reasons underlying events, decisions, or suggestions.

d. Critical - reflections which examine the values and assumptions embedded in the curriculum and instructional practices.

IV. Strategies for Encouraging/Enhancing Reflection

A variety of strategies designed to encourage and enhance reflective thinking has been compiled for your use. These strategies are grouped by author for your convenience in seeking references. The use of particular strategies will be individualized to each group and its coordinator, therefore, no prescription is being given as to the specifics of their use throughout the semester.

A. Wildman and Niles (1987)

Their study found that teachers' initial reflections were highly judgemental and not directly linked to objective evidence. Therefore, reflection requires:

1. Lots of opportunities and time

DUALISTIC:

Absolute right/wrong
Absolute truth provided by authority

MULTIPLICITY:

Temporary uncertainty - absolute truth can be known
all views equally valid
Uncertainty - acknowledges multiple perspectives
all views equally valid

SUBJECTIVITY:

Uncertainty resolved by emotional commitment; what feels right

PROCEDURAL:

Uncertainty resolved by inquiry process
More objective by nature
Process of inquiry can be connected or separate

RELATIVISTIC:

Context considered as central issue
Role of the self as creator and interpretor of knowledge/truth
Commitments are made

Figure 1. Common characteristics of developmental progression in the literature on adult thought.

2. Encouragment to use detail and be specific about observations, events, rationales, etc.

B. Ross (1987)

Ross suggests three strategies:

1. Communicating that knowledge is socially constructed (i.e. pointing out the origins of knowledge which are based on particular perspectives, and potentially whose interests it serves).

2. Modeling reflection:

   a. Share your reasoning in making decisions

   b. Allow students to question your source of knowledge and decisions

   c. Share your uncertainties about the validity of your own views

   d. Demonstrate skilled performance and explain what you did to help them learn the essential elements of skilled practice

3. Guided reflecive practice:

   a. Have students respond to and critique the ideas underlying their own teacher education program

   b. Have students analyze their educational experiences from various perspective (i.e. different orientations to education, different goals, etc).

   c. Encourage students to connect their teaching actions, consequences for students, and ideas from the methods course.

   d. After a lesson, have students relay what happened (in detail) and generate new alternatives.

   e. Focus on the decisions students made before/during instruction and link them to the next teaching episode.

   f. Provide a supportive/challenging environment:

1) Don't manipulate their answers

2) Allow conflict

3) Reinforce experimentation

4) Encourage the questioning of one another within the space of trust and safety.

g. Point out overgeneralizations so they begin to recognize them.

h. Encourage them to review the assumptions underlying their own positions/decisions/arguments

i. Use written responses as well as verbal.

C. Posner (1985)

This book is a workbook for use in teacher education courses. I have a copy if it is not available in the library. Some exercises will be more applicable to our situation than others.

D. Brookfield (1987)

Brookfield outlines several strategies designed to facilitate what he calls critical thinking:

1. Provide a safe and encouraging environment

a. Affirm students' self worth as they take the risk to reflect (i.e. of gaining an awareness of the biases and incongruencies of their former views/assumptions/etc).

b. Listen attentively

c. Show support for their efforts.

2. He suggests that the facilitation of reflection should be conversational:

a. Reciprocal and involving of everyone

b. The course of the conversation is not anticipated.

c. Diversity and disagreement is allowed and encouraged.

3. Facilitators should model reflective thinking:

   a. Be open. Share uncertainties, frustrations, anxieties, dilemmas. Share your reasons for your decisions and the assumptions underlying your own positions.

   b. Be communicative and willing to make your reasoning public.

   c. Be specific.

   d. Be accessible to the students.

4. Potential strategies for the reflection sessions:

   a. Mirror their ideas/actions back to them and convey how they look to you.

   b. Periodically review and evaluate prior reflections and subsequent actions.

   c. Encourage them to examine the assumptions underlying their actions and decisions. See appendix for examples of exercises. These exercises are meant to be springboards for discussions, not ends in themselves.

   d. Develop alternatives through:

      1) Brainstorming

      2) Preferred scenarios - discuss how they want the situation to be and then how to get there

      3) Affirm their alternatives, then explore which ones are better and how to determine that.

   e. Explore with them what seems to work well or not, why that is so, and generate alternatives.

   f. Written assignments for specific events, decisions, positions, methods course content, etc:

      1) Identify underlying assumptions

      2) Identify ethical questions not addressed

3) Identify areas in which there is lack of clarity

4) Identify contradictions

5) Examine in light of practical realities

D. Other strategies may include assigning short reading assigments concerning reflection, such as sections from the Posner text.

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APPENDIX B

ORAL PRESENTATION TO PARTICIPANTS AND

WRITTEN CONSENT FORM

1. The purpose of this dissertation is to study how preservice teachers reflect on their teaching. This includes the process of reflection, attitudes towards reflection, and the content of reflection.

2. Reflection has become an important issue in teacher preparation programs around the country. This issue is rooted in the concern that teachers develop an ability to review their own teaching with the intent of learning from experience in order to enhance future teaching decisions. The benefits of your participation in this study on reflection include:

    a. The opportunity to develop an increased awareness and ability to observe your own teaching behaviors and decisions.

    b. The opportunity to develop an increased sense of control over your own teaching decisions and behaviors and over your ability to influence student learning.

    c. The opportunity to develop an improved ability to reflect on your teaching experiences.

    d. The opportunity to develop an improved ability to make conscious teaching decisions (i.e., decisions made on the basis of your experiences, your knowledge, and your own values).

3. The following procedures will be used to study your reflections:

    a. You will be meeting weekly for one hour in a group of approximately three students throughout the semester as part of your methods course experience. The purpose of these meetings will be to provide you with opportunities to reflect on your methods course material and your field experiences. I will be meeting with you as facilitator of these groups. Your attendance of these sessions is important to the study, but they are

voluntary. Each session will be audiotaped and transcribed for data analysis.

b. You will be interviewed three times during the semester: a) once during the first three weeks, b) once near the middle of the semester, and c) once near the end of the semester. Interviews will be approximately one hour in length. Each interview will be audiotaped and transcribed for data analysis. Informal conversations throughout the semester may also be included as data if the conversation, or a portion of it, is relevant to the study of your reflections.

c. I will be attending all methods course class meetings and as many of your field experiences as possible as an observer. I will be taking written notes of my observations and they will also be used as data.

d. I will be collecting all written documents that you turn in during the methods course. These include exams, papers, lesson plans and evaluations, journals, and others if assigned. I will make copies of these and return the originals to your professor. These documents will also be used as data.

e. I may collect videotapes of your field experiences, if available, when it may prove to be helpful or when I am unable to attend to a field experience.

4. The portions of the collected data and my interpretations of it that pertain to you will be returned to you periodically throughout the semester to insure that my interpretations are consistent with your perceptions. After the semester ends and I have analyzed all of the data, I will return my final interpretations to you for your review. You will be asked at that time to schedule a final interview to discuss your perceptions of my interpretations. That interview will be audiotaped and transcribed for analysis.

5. I will be collecting data throughout the entire semester. Your participation involves in the attendance of weekly, one hour reflection sessions, four one hour interviews, and your permission to audiotape reflection sessions and interivews, to record my observations, and to collect your written documents from the methods course.

6. You will be at no to minimal risk concerning the data collected for this study. To insure that your risk is minimal, the following procedures will be used:

a. No one besides myself will have access to the collected data, including your professor (except for the documents and videotapes that are considered a regular part of the methods course requirements).

b. I will in no way be involved in the evaluation of your work or the assignment of a grade for the methods course.

c. I will use false names on all data collected, including tape labeling, transcriptions, folders, etc. Your name, the school's name and location, and the year of this study will be masked in the dissertation and any subsequent publications.

d. The collected data, recorded in false names, will be kept for an extended period of time for possible use in publications following the dissertation. In several years when the data is no longer useful for that purpose, written data will be destroyed and tapes erased.

e. You will have the opportunity to review my interpretations periodically throughout the semester and again prior to the submission of the dissertation.

7. Please understand that you are free to withdraw from this study at any time withour penalty or prejudice. Your professor will have no knowledge as to who is participating and who has withdrawn. I will continue to work with you during the reflection sessions regardless of your participation in this study.

8. Do you have any questions, comments, or concerns?

Signature of Person Obtaining Consent on Behalf of UNCG	Signature of Auditor/ Witness

NOTE: Complete statement of what is to be said to subject is required.

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Consent to Act as a Human Subject
(Short Form)

Subject's Name_____

Date of Consent_____

I hereby consent to participate in the research project entitled An Interpretive Inquiry of Teacher Reflection in Preservice Physical Education Teachers Enrolled in a Teaching Methods Course for Elementary School Physical Education. An explanation of the procedures and/or investigations to be followed and their purpose, including any experimental procedures, was provided to me by Ann Sebren. I was informed of the nature and extent of the participation being requested. I was also informed about any benefits, risks, or discomforts that I might expect. I was given the opportunity to ask questions regarding the research and was assured that I am free to withdraw my consent to participate in the project at any time without penalty or prejudice. I understand that I will not be identified by name as a participant in this project and was informed of the measures that will be taken to insure my confidentiality.

I have been assured that the explanation I have received regarding this project and this consent form have been aproved by the University Institutional Review Board which ensures that research projects involving human subjects follow federal regulations. If I have any questions about this, I have been told to call the Office of Research Services at (919)334-5878.

I understand that any new information that develops during the project will be provided to me if that information might affect my willingness to continue participation in the project. In addition, I have been informed of the compensation/treatment or the absence of compensation/treatment should I be injured in this project.

_____

Subject's Signature

_____

Witness to Oral Presentation & Signature

If subject is a minor or for some other reason unable to sign, complete the following:

Subject is _____ years old or unable to sign

because_____

_____

_____

Parent(s)/Guardian Signature