

CONCEPTIONS OF INSTRUCTION

IN THE WORKPLACE

by

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ABSTRACT

This research project investigated the question, What are the qualitatively different conceptions of instruction held by instructors of adults in the workplace? The research approach of phenomenography was used to discover how instructors of adults interpreted their instructional experiences. The sample studied consisted of twenty-two members of the Puget Sound Chapter of the American Society for Training and Development who were trainers in various workplace settings. The respondents' understandings of instruction were sought through semi-structured interviews that focused on one of their instructional experiences.

Three conceptions were found through an iterative process of examining units of meaning in the context of the individual interview and the context of all the interviews. The global meaning of each conception is: instruction is (a) imparting information to learners who receive and apply it on the job (Transmission Conception), (b) assisting learners to share and apply ideas and experiences (Enablement Conception), and (c) involving learners in an experiential process of discovering and constructing meaning (Constructive Conception). The structure of each conception was then analyzed to maximize the differences among them. Several findings emerged: (a) each conception had several components that were more clearly about learning than about instruction; (b) all the conceptions had one structural component that was the same - learning involves applying new knowledge on the job - suggesting that this may be an essential component of instruction in the workplace; and (c) two characteristics of meaning and connectedness appear to divide the conceptions placing the Transmission and Enablement Conceptions on one side and the Constructive Conception on the other.

It was concluded that (a) there are more than the two dichotomous ways of viewing

the instruction of adults that is suggested in the literature (teacher-controlled and collaborative); (b) there appears to be a generic conception of instruction common to many settings, that instruction is about transmitting information; (c) understandings of knowledge are related to conceptions of instruction; and (d) the context in which instruction occurs is a framing factor for thinking about instruction. The set of conceptions that was found can be used to study instructors' thinking about instruction in other settings as well as for their training and ongoing development.

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CHAPTER I

DEVELOPMENT OF THE RESEARCH PROBLEM

An important component of the educational process is teaching, and considerable attention has been given to instruction and to the instructor in the literature and research of educational systems. However, in adult education where the emphasis has been on learning and the learner (Jarvis, 1983), instruction and the instructor have not often been the focus of research. This situation gave rise to the question driving this research:

How is teaching understood in adult education?

This section provides an introduction to the first chapter of a dissertation in which the research problem is developed in regard to its derivation, the approach used for studying it, its purpose and significance.

Derivation of the Problem

A perusal of adult education literature revealed what was considered by some as an excessive amount of research, centered on learning and the learner (Brunner, Wilder, Kirchner, & Newberry, 1959; Long, 1983). This situation is due, in part, to adult education's close affiliation with psychology (Rubenson, 1982). In adult education, teaching has generally been regarded as a factor, though not a necessary one, in the learning process (Brockett & Darkenwald, 1987; Jarvis, 1983; Long; Wexley, 1984). Long and Brockett & Darkenwald wrote of the "teaching-learning transaction;" Jarvis stated that "adult education has tended to regard the teacher as an adjunct to learning, often necessary and frequently important, but never as essential to it. Consequently, the process of adult learning has been explored but rarely that of adult teaching" (p. 120). Teachers of adults were often characterized as having subject matter knowledge but little understanding of effective teaching methods (Darkenwald & Merriam, 1982; Knox, 1980b). Researchers either described the ideal teacher in terms of

characteristics and competencies, or attempted to demonstrate a relationship between instructor behavior and student learning outcomes. Although these approaches are important, other variables that impact teaching have been overlooked in research (Pratt, 1988b) such as the way instructors themselves view their teaching experience--their conceptions of teaching (Larsson, 1986). Interest in people's conceptions is based on an assumption that their conceptualization of a phenomenon is basic to their understanding of it and their subsequent actions related to it (Marton & Neuman, 1988). A review of adult education literature led to the conclusion that a different conceptualization of teaching in adult education, a clearer "map of the territory" (Rubenson, p. 58) is needed. The research question was therefore reframed to ask:

What conceptions of teaching are held by instructors of adults?

In the next section, terms that are central to this study will be defined.

Clarification of Terms

Even though this study was designed to discover how the concept of teaching was understood by the respondents, it is important to note how teaching was understood by the researcher at the outset of the study. This section will also clarify the use of the associated terms of instruction and training.

In general educational literature a close relationship was found between teaching and learning, along with the caveat that teaching does not always result in learning (Fenstermacher, 1986; Jarvis, 1983; Kidd, 1973; Knox, 1986). At the same time, teaching is not required for learning to take place (Jarvis, 1983, Smith, 1987). Thus, teaching can be viewed as "action undertaken with the *intention* [emphasis added] of bringing about learning in another" (Robertson, 1987, p. 15).

Distinctions were not made between the terms instruction and teaching, however, the former was more often used in training literature than in adult education literature. Although training (understood as the acts of the trainer rather than a function within an organization) was sometimes differentiated from teaching (Brookfield, 1986; Robertson, 1987), Jahns (1981) pointed out that both are concerned with the design and delivery of instruction and the facilitation of learning.

In adult education literature there is an increasing trend to avoid using the term teaching at all. One way of dealing with teaching is to discuss roles enacted by teachers, for example, model, expert resource, guide (Apps, 1979). In the most recent Handbook of Adult and Continuing Education (Merriam & Cunningham, 1989), the chapter that treats teaching is entitled "Facilitating adult learning" (Brookfield, pp. 201-210), reflecting probably the most common role currently ascribed to teachers of adults. Facilitation "assumes the equality of teachers and learners and the interchangeability of teaching and learning roles" (p. 201). Along with a number of other roles attributed to teachers of adults, such as mentor, guide, and resource person, facilitation implies assistance rather than direct intervention. Even Nadler & Nadler (1989) preferred the term facilitator to instructor in human resource development, though they acknowledged that it was not commonly used in the private sector. They found the term "instructor" to be "...too limited to describe what an individual actually does...." (p. 141). This trend of using nondirective terms to describe the roles of teachers of adults appears to reflect an assumption that adults are or should be increasingly self-directed, and therefore adult education should be more concerned about the learner than about teaching. As Cross (1981) pointed out, the shift of emphasis from teaching to learning does not address the issue that "...if an educator wants to know how to help a learner learn, he [or she] needs to know how teachers should behave in order to facilitate learning" (p. 227).

Because the setting for this study was the workplace, *instruction* became the preferred term, although teaching and training are sometimes substituted. The study began by viewing instruction as actions undertaken by the person recognized as an instructor in a given learning situation to bring about learning. However, the focus of the study is in how instructors *understand* the process of establishing and maintaining relationships with learners to bring about learning rather than the instructors' actions. It was found that instructors considered themselves to be facilitators as well as experts, models, and resource persons, depending on the individual instructor or the situation.

Research Approach

Phenomenography was used to address the question because it is a research approach developed to discover and map people's conceptions of their world (Marton, 1981). Rather than studying the reality of a phenomenon as separate and objective, it focuses on what the actors involved *think* about the phenomenon in order to understand dimensions of it that are not usually explored. The primary findings of phenomenography are categories of description organized into an outcome space. The categories are called conceptions and they depict the varied understandings of the phenomenon being studied. The conceptions are "constructions of the researcher" (Säljö, 1988, p. 45) and center on the "structurally significant differences that clarify how people define some specific portion of the world" (Marton, 1986, p. 34). The researcher's conceptions represent the conceptions of the respondents who are not presumed always to act out of a particular conception but may use different understandings in different situations and may even use different conceptions in the same situation. Therefore, in this type of research, people are not classified in terms of conceptions held, but the phenomenon being studied is classified in terms of conceptions derived from the data. Thus the conceptions, "though originating from a contextual

understanding, are decontextualized" (Marton, 1986, p. 34) to provide a "map of the territory" (Säljö, p. 44) depicting various conceptions that may be used in different situations.

Research Study

Topic

Although teaching has not been the primary concern of adult education researchers, Jarvis (1983) pointed out that "it remains at the heart of the educational process, so consideration needs now to be given to it" (p. 112). Among the factors other than behavior that are thought to influence teaching are teachers' cognitive processes such as their thinking prior to and during teaching (Clark & Peterson, 1986), and their conceptions of teaching, or the ways in which they interpret their experiences of teaching (Larsson, 1986).

This study investigated conceptions or understandings of instruction. Variations in understandings rather than common behaviors were examined and described using a phenomenographic approach. Although teaching or instruction is generally regarded as a process, an assumption of phenomenography is "there can be no process without a content" (Marton, 1981, p. 184). Therefore, thinking about the process of instruction was studied by asking instructors to describe in depth a particular instructional experience.

A closely related assumption of this type of research is that understanding is rooted in the relationship of humans to the world around them (Marton, 1986). In other words, reality is always an experienced reality, and the context in which some aspect of the world is studied is integral to its understanding. Therefore, this study sought to discover how instructors understood instruction within the particular context in which it took place.

Setting

Interest in the workplace as a setting for research was recognized as early as 1959 by Kreitlow as "the most rapidly growing area of the field" (p. 225). Deshler (with Hagan, 1989) predicted that this will become a major area of focus for adult education researchers in the next decade: "Research into the nature of learning occurring in workplace environments will become essential in order to appreciate the relationships among forces initiated by the individual and those directed toward socialization, as well as those whose goal is technical proficiency and those seeking human liberation and empowerment" (p. 162).

Workplace is understood here in a broad sense as a social and organizational context in which individuals are employed to further the goals of the organization. The education of adults which takes place in the workplace is ordinarily referred to as training or human resource development. Training is sometimes separated from adult education based on an assumption that it involves the transmitting of "previously defined skills, knowledge and behaviors" and does not allow for a consideration of "alternatives to the popularly prevailing or organizationally prescribed norms governing proper professional behaviors" (Brookfield, 1985, p. 46). This separation is unfortunate for a number of reasons. First of all, the involvement of business and industry in the training and education of adults is already extensive. In the United States alone, private industry enrolls 14 million adults at a cost of \$30 billion compared with higher education which enrolls 12.3 million persons at a cost of \$95 billion (Carnevale, 1989, p. 27). In 1987, almost twice as many adults took courses provided by employers as participated in adult and continuing education courses (Smith, 1989). In addition, some corporations provide large campuses where thousands of employees are trained and degrees are offered (Brookfield, 1986). As a result, there has been a huge growth in the number of persons needed to provide training, many of whom have little training themselves (Watkins, 1989).

Another reason for involvement in workplace training is that many trainers and consultants regard themselves as educators rather than as trainers and look to adult education to provide a rationale for their practice (Brookfield, 1986). At the same time, a number of concepts from workplace settings are useful for adult education, such as Schön's reflection-in-action and Nadler's work on human resource development (Brookfield, 1986).

In her book, Learning in the Workplace, Marsick (1987) described a shift in emphasis in many organizations towards participatory and interactive decision-making calling for training that involves creative and collaborative problem-setting and problem-solving. Trainers and instructors are central to the systems that ensure a skillful and competent workforce, and an initial step in assuring that there are proficient instructors to provide such training is a deeper understanding of the instruction of adults in the workplace. It is clear from these examples that adult education and human resource development or training are inextricably linked if for no other reason than for "educators working in these settings to ensure that these efforts are conducted humanely, respectfully, and carefully and [that] they incorporate collaborative and critically reflective elements" (Brookfield, 1986, p. 191).

Research purpose and assumptions

The use of a phenomenographic research approach presupposes an interest in what actors in a situation think about some elements of that situation because their conceptions are considered to be basic to an understanding of the phenomenon of interest. As Marton and Neuman (1988) pointed out, "our way of conceptualizing a certain phenomenon is the most fundamental aspect of our knowledge about and our skills related to that phenomenon" (p. 7). In this study the interest is in what instructors of adults who teach in the workplace think about instruction. The research question was again reformulated to ask:

What are the qualitatively different conceptions of instruction held by instructors of adults in the workplace?

The purpose of the study was to continue building knowledge about teaching adults by attempting to discover various ways in which instructors conceptualize and understand instruction. Three conceptions of instruction were derived from interview data and the conceptions were analyzed for their structural components to give a more thorough understanding of them in terms of those elements of instruction that were found to be important in each. This provides a partial reconceptualization of instruction in the workplace insofar as it demonstrates more than one way of thinking about instruction in that context.

This study began with the following assumptions: (a) Instructors construct their understanding of instruction in relation to the subject matter taught and the context in which they act; (b) There is a limited number of ways in which instructors conceptualize instruction; (c) Conceptions of instruction can vary not only among instructors but within individual instructors, depending on the context and situation; (d) The instructional activities of instructors are influenced by the way in which they interpret the situation and by their understanding of instruction.

Summary

This chapter has described the evolution of a research question from:

How is teaching understood in adult education?

to its final formulation:

What are the qualitatively different conceptions of instruction held by instructors of adults in the workplace?

This development originated in a somewhat fruitless search through adult education literature for a comprehensive picture of teaching that could be applied in different settings, particularly the workplace. In this literature, it was found that the focus for research was primarily learning and the learner and that when teaching was studied, it was usually as a factor in learning. Because of the limited attention to teaching in adult education literature and the

close affiliation of teaching and learning, it was decided that teaching would be an important focus for research. Among factors that are thought to influence teaching are instructors' views of the teaching experience. These understandings or conceptions were the focus for the study which used a research approach known as phenomenography. The use of relevant terms, such as training, teaching and instruction was clarified, and the purpose and assumptions of the research project were presented.

Although it has been emphasized that literature on teaching adults is limited, this does not mean that none exists. On the contrary, there are a number of assumptions, prescriptions, and research studies that guide the work of instructors of adults. In Chapter Two, these assumptions and studies will be reviewed and analyzed. In Chapter Three, the research design will be described including the sample that was studied, the data collection and analytic techniques that were used, and the limitations of the study. Chapter Four will present the research findings in the form of the conceptions of instruction that were derived from the data as well as a structural analysis of the conceptions. In Chapter Five, the conceptions will be discussed and compared to the literature. In the final chapter, the work will be summarized, conclusions will be drawn, and implications for practice and future research will be presented.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to illustrate from the literature ways in which teaching is understood in adult education. Two major types of literature were considered: 1) that which prescribed guidelines for teaching adults, and 2) research studies. These types of literature were consulted during the development of the research problem and to inform the interview questions. As the data were being analyzed, reports of several other studies that took place at the same time that this one was being conducted and that were similar in design emerged, so they are included at the end of the review of research studies. In addition, during the data analysis, it became clear that literature in the areas of knowledge and learning needed to be consulted and a review of works on those topics was added. The chapter concludes with a conceptual framework that was derived from the literature.

Material was identified for review from adult education bibliographies, reviews of research (e.g. Brockett & Darkenwald, 1987; Brunner, Wilder, Kirchner, & Newberry, 1959; Long, 1983; Review of Educational Research, 1950, 1953, 1959, 1965; Wexley, 1984), commentaries on research (e.g. Apps, 1979; Deshler with Hagan, 1989; Kreitlow, 1970; Rubenson, 1982 & 1985), a "review of reviews" or meta-research (Sork, 1980), a master's thesis (Gowan, 1988) reviewing fifty major books in adult education from 1930-1986, and approximately 600 abstracts from ERIC and Psychinfo computer searches from 1950-1992. In addition, a hand search of Dissertation Abstracts International from 1973-1989 was made, significant articles were traced in Social Science Citation Index, and current copies of various adult education journals were examined.

Guidelines for Teaching Adults

It was noted in Chapter One that teaching and instruction have seldom been the focus of research in adult education however, there is a profusion of "guidelines" for teaching which are often derived as the practical implications of various learning principles. In fact, Long (1983) pointed out that "there is no grand theory of instruction for adults or children" (p. 217). Although some of these guidelines are referred to as "theories" in the literature, they do not present a "set of interrelated constructs...with the purpose of explaining and predicting the phenomena" (p. 9), which Kerlinger (1973) gave as requirements for a rigorous definition of formal theory. These guidelines are more in the realm of practical or informal theories that arose out of "situationally-based insights regarding problems, tensions, and dilemmas of actual practice" (Brookfield, 1992a, p. 80). Therefore in this review, such suggestions for practice will usually be referred to as guidelines or recommendations even though the literature may have alluded to them as theories. This section of the literature review is divided into three subsections: handbooks, teaching principles, and models of teaching and learning.

Handbooks on Teaching Adults

Many guidelines for teaching adults were presented in handbooks prepared for instructors who were often part-time and had little educational training or practical experience teaching adults, but who had content expertise (Dickinson, 1973; Draves, 1984; Knox, 1980b). Many of these books (Apps, 1991; Brookfield, 1990; Dickinson; Draves; Langerman, 1974; Miller, 1964; Staton, 1960) had some basis in research on learning, but relied for the application to teaching on the practical experience of the authors. The exceptions were works by Apps (1981), Daloz (1986), and Knox (1980b) which were based on interviews of adult students and of instructors viewed as effective. Most of the handbooks usually proceeded from a description of adults as learners to suggestions for teaching, often

incorporating program planning procedures as well as descriptions of appropriate teaching methods and techniques. The underlying assumption of these works was that adults learn differently from children and therefore should be taught differently (which will be discussed later in this chapter). Two exceptions to this characterization are the more recent books by Apps (1991) and Brookfield (1990). Although both of them included material on adult learners and instructional methods, they focused more directly on instructors who were encouraged to reflect critically on their roles and to develop a personal philosophy of teaching.

Teaching Principles

What was referred to in the literature as teaching principles were most often instructional recommendations derived directly from learning principles and theory. They were seldom empirically supported statements of relationships between variables as "principle" is defined by Snelbecker (1974). More often, they were statements about learning or the learner that the researcher held to be true or "accepted as professed rules of action for conduct" (James, 1983, p. 131). They appeared to be practical applications of learning principles usually revolving around what the adult learner brought to the learning situation, and what was thought necessary or recommended within that situation for learning to take place.

Regarding the learner, some authors made explicit their belief that adults maintain their ability to learn (Brookfield, 1986; James, 1983), which was implied in other works discussing principles of adult learning. However, the ability to learn was viewed as variable depending on physiological, psychological, sociological and cultural reasons (Berg, 1969; Brookfield; James; Jarvis, 1983). Some authors further stated that the self-concept most adults bring to the instructional situation, especially as learners, tends toward independence and self-direction (Brookfield, James). Adults were also seen as bringing a variety of needs, goals,

motivations for learning, and learning styles (Brookfield; Dickinson, 1973; James; Jarvis), which are often centered in the learner's current life situation and problems (Berg; Brookfield; James). At the same time, adults were thought to bring past experiences of living and learning, as well as some knowledge and understanding of the subject matter to be studied (Darkenwald & Merriam, 1982; Jarvis). The quantity and quality of such life experiences influence the learning outcome (Berg, Brookfield).

A variety of conditions were recommended for learning to optimally occur. According to a number of authors, learning takes place more easily if the content is meaningful, organized, appropriately sequenced and paced (Berg, 1969; Darkenwald & Merriam, 1982; Dickinson, 1973; Miller, 1964; Staton, 1960). Opportunities to practice new skills, knowledge of progress through feedback and reinforcement, and guidance in applying new knowledge (Berg, Dickinson, Miller) were also seen as important for learning. Adults were viewed as wanting to be actively involved in the learning process and to feel comfortable in a supportive, cooperative environment (Berg; Darkenwald & Merriam; James, 1983; Jarvis, 1983; Staton). Instructional recommendations can be quite easily derived from these statements about learning, and thus can be viewed as practical applications.

Besides obvious recommendations that could be derived directly from statements about learning described in the previous two paragraphs (e.g., teachers should...organize the content [Staton, 1960]; ...make their subject matter relevant [Grabowski, 1976]; ...provide feedback to learners on their progress [Dickinson, 1973]), several themes emerged from the many lists of teaching principles. First of all, three elements of the instructional situation were to be considered by the instructor: the learner, the content, and the environment or context in which learning was intended to take place. Regarding the learner, instructors were to be aware of the learners' learning styles and abilities, instructional needs and goals, as well as previous knowledge and experiences related to the subject matter (Apps, 1981; Jarvis, 1983;

Knowles, 1980; Mezirow, 1981). Although the question of content was seldom alluded to in instructional recommendations (perhaps because it varies so much in different settings), it was seen as an important element of the teaching situation, and instructors were to know whether it consisted of knowledge, skills, beliefs, or attitudes (Miller, 1964), because methods and techniques should be chosen according to the type of knowledge involved. The third major element of an instructional situation was the context or environment which, according to a number of authors should be supportive, comfortable, and cooperative (Apps; Daloz, 1986; Knowles, 1980; Mezirow).

The next two themes are evident in much adult education literature and have generated considerable research and debate (e.g., Brookfield, 1986). Many authors stated that learners should be treated with respect as responsible, independent adults who are peers of their instructor (Brookfield; Jensen, 1964; Kidd, 1973; Knowles, 1980). A corollary of this theme was that the education of adults should be as collaborative as possible given the purpose of the instructional situation and the learners' current level of knowledge (Brookfield; Jarvis, 1983; Jensen; Knowles; Mezirow, 1981). A third theme, previously noted was that instructors of adults should build on and use as resources the experiences of the learners (Apps, 1981; Jarvis, Knowles), including their experiences of living, of learning, and their current knowledge of the subject matter. (These two themes will be discussed in more detail in an ensuing section of this chapter.)

A final theme emerged from some writers (Brookfield, 1986; Daloz, 1986; Mezirow, 1981; Tennant, 1986) who argued that an overly supportive instructional environment would not lead to the change necessary for learning. They believed instead, that conceptions change and thus learning takes place, only when learners have an opportunity to consider perspectives other than their own (and their teachers') and to have their own perceptions challenged. From the above discussion it could be concluded that with sufficient knowledge

of the learners and a clear understanding of content goals, the instructor should interact with adult learners in as collaborative a manner as possible (given the restraints of the situation) to choose from a variety of appropriate and challenging methods and techniques for the planning, implementation and evaluation of the learning process. However, lack of sufficient supportive evidence prevents such a definitive conclusion. As Stephans (1985) pointed out, "scientific knowledge of humankind has not yet reached a degree of sophistication where a tutor's decision on which teaching method to use is determined more by information on adult learning than that tutor's rule-of-thumb experience" (p. 5128).

Models of Adult Teaching and Learning

Several adult educators devised explanatory frameworks for adult learning often with consequent recommendations for instruction. These explanations represent the authors' mental organization of existing research and suggest avenues for future research, so that in this sense they are conceptual frameworks. They are often referenced in the literature as models of teaching or learning because they are tools for thinking about and simplifying the instructional process (Flanders, 1987). All of the ones described here were directed toward the instructor, but most of them focused on the adult learner.

One framework devised by Pratt (1989) to describe the development of competence in instructors of adults focused primarily on the instructor. Among a variety of frameworks that focused on the learner with derivative recommendations for instruction were several that were widely referenced in current adult education literature. These were the Proficiency Theory by Knox (1980a), Characteristics of Adults as Learners by Cross (1981), the Charter for Andragogy by Mezirow (1981), and Andragogy by Knowles (1980).

Stages of Teachers' Competence

In a framework that focused on the instructor rather than the learners, Pratt (1989) synthesized approaches to the instruction of adults by describing the development of competence in teachers. He argued that "the nature of teacher competence changes as teachers move through developmental stages and, further, that the forms of competence that define excellence in teaching are interrelated" (p. 78). In the first stage of development, which usually occurs when instructors are first beginning to teach or have moved to teaching in a different context, attention is focused on content knowledge and the ability to transmit it to the learners. At this stage, knowledge of subject matter, of learning theory, and of the most effective instructional practices are paramount. Most of the instructional recommendations already described in this paper fit into this category. As instructors become more competent, they acquire the ability to adapt the skills and knowledge of the first stage to the learners and the context. Decisions are made "on the spot" as to the most appropriate instructional actions, and instructors are able to evaluate their teaching in terms of the rationale for their actions as well as to consider alternative ways of acting. In the third stage of development, attention is focused not only on the adaptation of knowledge and skills to the context, but also on the cultural values underlying the content and processes of instruction.

Thus, competence in teaching moves from a concentration solely on behavioral skills, through a cognitive awareness of the need for adaptation to circumstances in the application of those skills, to critical reflection on the relationship of social, institutional, and personal values to the instructor's practice. Pratt noted the interdependency of the three forms of competence in that each can be found to some degree at every stage of development, with the emphasis changing as experience increases and competence grows.

Proficiency Theory

Knox (1980a) provided a rationale for the instructional choices made by teachers of adults in terms of what he called the "proficiency theory" (p. 378). He defined proficiency as "the capability to perform satisfactorily if given the opportunity" and as involving a "combination of knowledge, skills, and attitudes" (p. 378). Central to this explanation were (a) a view of learning as transactional and developmental, (b) the identification of the discrepancy between present and desired proficiency identified as the educational need, and (c) clarity about the correspondence between what is to be learned and future performance.

Knox's (1980a) recommendations for instructors were that they (a) encourage adults to take responsibility for learning; (b) provide an overview of desirable proficiency; (c) assist in the identification of discrepancies between current and desired proficiency; (d) arrange for the planning and sequencing of learning activities, for practice, and for judging the effectiveness of the activities. Factors affecting the instructional transaction that were to be considered by the teacher were: characteristics of the content; characteristics of the learners, such as readiness to learn, personality, life situation, motivation, degree of self-direction, past content mastery, and attitudes toward learning; characteristics of the instructor, such as teaching style; and contextual influences, such as resources and restraints.

Characteristics of Adults as Learners

Cross (1981) devised a framework to incorporate research about the differences between adults and pre-adults as learners, so that teaching implications could be derived. Termed the Characteristics of Adults as Learners (CAL) framework, it defined the characteristics of adults in two ways, as personal and situational. Personal characteristics, which were envisioned along a continuum, include physiological or aging characteristics, sociocultural or life phase characteristics, and psychological or developmental stage

characteristics. Teachers are to assess where the learners are on the continuum in regard to these characteristics and to adjust their instructional approaches appropriately. Adaptive measures may be necessary for adults whose physiological characteristics impede their activities; adjustments may have to be made to accommodate sociocultural conditions; whereas challenge may be appropriate to call learners to the next stage of psychological development.

Situational characteristics, which describe conditions under which learning occurs, are often (but not in all cases) dichotomous. They indicate whether adults are part- or full-time learners, and whether their learning involvement is voluntary or compulsory. Each of these conditions will enhance or impede learning and must be taken into consideration by instructors. Cross suggested that this framework would assist instructors to organize their information about learners so as to make appropriate instructional decisions, and she recommended that research be conducted within and across the variables.

Charter for Andragogy

Mezirow (1981) proposed an explanation for learning that he suggested is unique to adults. Based on the work of Habermas and derived from a study of women re-entering the workforce, Mezirow termed his explanation "perspective transformation," referring to a process by which humans become critically aware of how and why they are constrained by psychological and cultural assumptions in their self-perceptions and in their relationships. The process includes the reconstruction of personal assumptions to allow a "more inclusive and discriminating integration of experience and [action] upon these new understandings" (p. 6). This is the third of three distinct but interrelated learning domains: the technical, the practical, and the emancipatory, each of which has its own learning needs and goals, and therefore instructional implications. The technical or work domain requires skill learning

related to controlling the environment, and is best acquired through behavioristic instructional approaches, such as task analysis and programmed instruction. Mezirow argued that problems arise when these methods are transposed to the other two domains. In the practical domain, also identified as social interaction, learning is for interpersonal understanding. This requires a different type of instructional approach focused on helping learners understand how they and others construct meaning, and might involve conflict resolution, group facilitation, or philosophizing. The emancipatory domain involves learning for perspective transformation and is best effected by such approaches as projective techniques, Socratic dialogue, and support groups. An important instructional element of this domain is the proposal of alternative meaning perspectives and the opportunity for learners to develop competence in new roles.

Mezirow (1981) then drew implications for instruction in what he termed a "Charter for Andragogy" (p. 21). He defined andragogy as "an organized and sustained effort to assist adults to learn in a way that enhances their capability to function as self-directed learners" (p. 21). He recommended decreasing learners' dependency on the instructor; collaborative planning of learning activities; fostering decision-making and self-reflection; facilitating problem-posing and solving; experiential, projective methods; and distinguishing between presenting alternatives and directing toward a specific choice.

Andragogy

Strictly speaking, andragogy as popularized by Knowles (1980), is not a model or conceptual framework in the same sense that the other ones which have been presented are. Rather it is a set of Knowles' assumptions about adults as learners with consequent instructional recommendations. It is more thoroughly critiqued here because in North

America, it is the most widely cited and discussed understanding of adult learning and teaching, even though the assumptions are largely unsubstantiated.

Davenport and Davenport (1985) traced the use of the term in North America to Lindeman who used it to indicate a technique for teaching adults, but who apparently saw no need to encourage use of the word. Knowles (1980) later proposed that the term should mean an approach to teaching adults based on assumptions about the learner. He defined andragogy as "the art and science of helping adults learn" (p. 43) and originally contrasted it with pedagogy as "the art and science of teaching children" (p. 43). However, he has amended that position to suggest that andragogy is "simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions, thereby providing two alternative models for testing out the assumptions as to their 'fit' with particular situations" (p. 43). He has come to view the assumptions from a developmental perspective by suggesting that humans normally move from the pedagogical end of a continuum to the andragogical end as they mature.

Knowles' (1980) assumptions about adults as learners are that (a) their self-concept moves from dependency to self-direction, (b) they gradually acquire experience that can become a useful resource for learning, (c) their readiness to learn becomes increasingly centered on the tasks of their developmental stage and their role in society, (d) their time-perspective has moved from being future-oriented in childhood to focusing on the present, and (e) their orientation to learning has moved from being subject-centered to being problem-centered. These assumptions underlie many of the recommendations for the instruction of adults described in this chapter, such as the admonition that instructors should use the experiences of adult learners as resources for learning, and that learners should be encouraged to take responsibility for their own learning. In addition to these examples,

Knowles suggested a number of other practical implications of these assumptions; for

example, instructors should view themselves as co-learners, should provide a supportive climate, should use experiential techniques, should provide a variety of choices to meet needs of adults at different stages of life, and should organize content around the problems of the learners.

The popularity of andragogy as interpreted by Knowles has provoked much discussion. The debate revolves around the clarity of the concept (Hartree, 1984), the lack of supportive research (Cross, 1981; Jarvis, 1983), and its limitation as a defining concept in adult education (Law & Rubenson, 1988; Rubenson, 1982; Tennant 1988). Hartree pointed out confusion over whether andragogy refers to learning or teaching, whether it is a descriptive or a prescriptive concept, and whether it is supposed to represent a theory or describe practice. Although the assumptions are about the learner, recommendations for teaching are derived from them. It might be appropriate to generate recommendations applicable across instructional situations if a substantial body of research supported the assumptions, but this is not the case (Cross; Davenport, 1987; Jarvis; Pratt, 1984). It will be pointed out later in this dissertation that the most that can be said for the research that has been generated by these assumptions, is that although they may be supported by many professional adult educators, the assumptions are not always implemented in practice, and indeed, are not always favored by adult learners. Much of the confusion over the prescriptive or descriptive nature of the concept and whether it is about teaching or learning can be traced to Knowles' discussion of pedagogy that described traditional, school-based education of children as didactic and teacher-centered (Pratt, 1984), and to his discussion of andragogy as an alternative method focusing on an ideal adult learner. Other scholars have debated the more fundamental assumption of andragogy that adults differ from children and therefore should be taught differently. McKenzie (1977) supported a phenomenological approach arguing that the reality of adulthood is different from that of children because adults make

sense of their world in different ways than children do. Elias (1979) followed Houle (1982) by maintaining that although human beings grow and develop throughout life, their fundamental nature is the same whether they are children or adults, therefore they learn the same, and educational processes for them do not have to differ.

The assumptions themselves have also been widely discussed in the literature. The assumption that adults as learners tend toward self-direction has been researched more than the other assumptions, mainly through interviews of adults about their self-directed learning projects. However, Brookfield (1986) faulted most of this research for being culturally biased, for giving insufficient attention to the quality of reported learning activities, and for the interview process in which the interviewers' expectations might have influenced the recall of learning experiences. Pratt (1988a) pointed out that other research on self-directedness indicated that adults vary in their readiness to perform some of the tasks related to being self-directed learners, and that self-directedness and dependency on the instructor are situational choices, not permanent traits. Elias (1979), and Tennant (1986) argued that the drive towards independence begins in childhood so is not exclusive to adults.

Although Brookfield (1986) suggested that the assumption that adults' life experiences are important resources for learning is well founded, much of the research on learning from the University of Gothenburg in Sweden (Marton, Hounsell & Entwistle, 1984) demonstrated that a learner's conception of the subject matter developed through practical experiences can often hinder the formation of new understandings. And both Elias (1979) and Brookfield (1986) pointed out that the admonition to base instruction on the learners' experiences is not a new recommendation nor is it restricted to adults, but dates back to Dewey's theory of the education of children.

Regarding the assumption that adults' readiness to learn is related to their developmental tasks and social roles, Elias (1979) and Tennant (1986) pointed out that

children also have developmental tasks and social roles around which instructional content can be centered. Brookfield (1986) feared that this assumption could reduce adult education to a technological enterprise in which the focus is solely on job or life related skills and competencies. Elias recalled that a problem-centered approach to learning is also a hallmark of progressive education for children.

The limitations of andragogy as a defining construct for the teaching of adults were emphasized by Brookfield (1986), Carlson (1979), Rubenson (1982) and Tennant (1986). Andragogy represents a humanistic, psychological approach to adult education that overlooks political and social realities affecting both the teaching and learning of adults. Carlson argued for a different meaning for andragogy whereby it would indicate the point in people's lives after which the dominant culture would no longer be responsible for their socialization. Rubenson and Tennant would redirect attention to the way in which the content and processes of adult education reflect and reproduce middle-class values. This could be accomplished by responding to Brookfield's and Pratt's (1989) call for critical reflection on assumptions and values underlying all aspects of the educational process as an essential element in the instruction of adults.

Andragogy appears to be based on a humanistic, individualistic ideology (Hartree, 1984; Jarvis, 1983; Tennant, 1986), however, Tennant pointed out that the processes (e.g., the learning contract), which Knowles (1980) suggested for the implementation of andragogy, are more behavioristic than humanistic. Davenport (1987) concluded that Knowles' etymological definition of andragogy is inaccurate and his assumptions are unclear. Despite all the criticism of the concept, it is quite popular among practitioners, especially the assumptions that adults are or should be self-directed in their learning efforts (Podeschi & Pearson, 1986), and that instructors should use learners' experiences as learning resources.

Brookfield (1986), Elias (1979), and Hartree (1984) attributed this to efforts on the part of adult

educators to legitimate adult education as a distinctive discipline. However, it should be pointed out that Knowles himself did not propose andragogy to be the comprehensive theory it is sometimes represented to be, but rather as assumptions to be tested (Brookfield; Knowles, 1979). In the last few years quite a number of studies have been conducted based on the assumption that adults differ from children and therefore should be taught differently and these studies will be reviewed in the next section of this chapter.

Most of the models for adult learning and teaching which have been presented here include similar themes, for example the focus on the learner, the emphasis on shared responsibility and collaboration in the learning transaction, the stress on centering learning for adults on life experiences and problems, and the importance attributed to learners' and instructors' perceptions. What is problematic, however, is the implication in many of the models that the assumptions and recommendations apply only to the instruction of adults and would be inappropriate for teaching children.

Research on Teaching Adults

Research on the teaching of adults might be categorized in any number of ways, but for the purposes of this study, the simplest way to classify it was to identify the major focus of particular research studies as either on what teachers bring to the instructional situation, or on what they do once they are in that situation. In the latter category, studies centered on teachers' practice, called behavior or activities, including methods and techniques, on their style or mode of teaching, and on their instructional decisions. Research about what teachers bring to the instructional situation focused on such factors as instructor characteristics, competencies or skills; their philosophy, assumptions, orientations, attitudes and beliefs; their perceptions, understandings, conceptions and knowledge. The object of teachers' beliefs

and understandings that was researched was frequently the learner, content, instructional processes, and the setting.

In research surveyed for this study, the purpose was often descriptive, but sometimes explored the interaction of various factors, such as those named above. Sometimes the studies were open-ended in that teachers' assumptions were not predefined; more often they began with assumptions identified as andragogical, meaning that teachers should regard learners as self-directed and should employ collaborative and learner-centered processes. The samples were usually small, and data were most often collected with surveys or questionnaires and analyzed with descriptive statistics, analysis of variance, and correlational techniques. Findings were mixed, showed little consistency, and were often contradictory. The studies examined for this study focused on what teachers bring to the instructional situation, particularly what they believe and understand about their professional experience. Studies focused on teacher behavior were not used unless behavior was related to instructors' assumptions or perceptions. Students' perceptions or achievement was considered only if it was part of a study in which the major focus was the instructor. It was difficult to further sub-divide the studies because the constructs being examined were seldom defined in comparable ways, however through a process of grouping studies with similar focuses, the following classification was made: (a) instructors' competencies, (b) instructors' assumptions about learning and teaching, and (c) instructors' ways of thinking including perceptions and conceptions. These categories are not definitive, but merely a way of managing the analysis of some sixty studies.

Instructors' Competencies

Instructors of adults bring certain skills and competencies to their task of instruction and a large segment of research was devoted to this topic (e.g., Colquitt-Wilkins, 1985; Copa

& Sandmann, 1987; Eaves, 1985; Fashokun, 1988; Fenn, 1972; Mezirow, Darkenwald, & Knox, 1985; Mocker, 1974; Pratt, 1983; Rossman, 1977; and Walther, 1972). Most of the studies provided inventories of competencies that were considered important for instructors of adults. Common themes that ran through the findings were: (a) that instructors need knowledge of the subject matter, of the learning process, and of their particular learners; and should be skilled in communication and the use of varied and appropriate instructional processes; (b) that instructors are learner-centered, are committed to program goals, and believe that adults are capable of learning and growth; and (c) that instructors are characterized by warmth and concern and are themselves lifelong learners.

The competency approach to studying teaching has been criticized for a number of reasons. Apps (1981) argued that (a) it assumes that all aspects of education can be defined in behavioral terms; (b) it is discouraging for instructors to see a long list of competencies that they are supposed to possess; and (c) competencies that are derived from expert teaching cannot be easily taught to beginning teachers, because teachers' use of such skills usually results from their expertise and experience.

In a different approach to competency study, Copa and Sandmann (1987) found that competence was related to reflective thought about instructional situations. Cervero (1989) recommended reflection so that instructors can make "the best judgment in a specific context for a specific set of ethical beliefs" (p. 65). This was supported by Pratt (1989) who argued that the ability to make instructional decisions based not only on contextual variations but also on critical reflection on societal, institutional, and personal values, may be a skill of highly competent teachers.

Instructors' Assumptions about Teaching Adults

The largest group of studies about what instructors bring to instruction revolved around adult educators' assumptions about adult learning and teaching, which were usually referred to as principles of adult learning and/or teaching or even principles of adult education. These principles were defined in a variety of ways by researchers, and sometimes identified as teaching mode, orientation or style. Many of the studies were based on Knowles' (1980) assumptions about adult learners and called andragogical principles. Most of the studies sought to find out whether instructors agreed with these assumptions about adult learners and whether they perceived themselves to follow the resulting recommendations in their practice. In some cases teachers' perceptions were compared to their students' perceptions and/or satisfaction with the course. Some researchers developed instruments to be used in studies of teachers' perceptions about and use of adult learning principles (Conti, 1979; Hadley, 1975; James, 1983; Suanmali, 1981).

Teaching Adults, Pre-adults

All of the studies of principles of adult learning were based on an underlying assumption that adults learn differently from pre-adults and therefore should be taught differently. However, a small group of studies focused directly on this fundamental assumption and attempted to discover if and how instructors taught adults differently from pre-adults. Studies by McDaniel (1969), Beder and Darkenwald (1982), and Gorham (1985) examined teachers who taught both pre-adults and adults, whereas the Stockholm (Touchette, Beder, Carrea, & Rubenson, 1983) investigation compared high school teachers and teachers in municipal adult education classes.

Using the Flanders' System of Interaction Analysis, McDaniel (1969) compared the classroom verbal behavior of teachers who taught basic education classes as well as public

school pre-adult classes. He found significant differences between the two situations in all interaction categories except lecturing, and concluded that in the pre-adult classes, teachers were more ready to accept students' ideas, asked more questions, gave more directions and more criticism, and lectured slightly more. However, in the adult classes, teachers used more praise and tended to exercise more direct influence.

Beder and Darkenwald (1982) identified certain conditions as factors for determining whether instructors taught adults differently from pre-adults. If instructors taught adults differently, they (a) perceived psycho-social differences between adults and pre-adults, (b) believed that such differences should be considered, and (c) had the autonomy to teach differently. Based on interviews with teachers of both adults and pre-adults, the researchers developed a questionnaire (Rutgers Study of Teaching Instrument) to measure (a) the degree of difference in teaching behaviors, (b) perceived differences in characteristics of adults and pre-adults, (c) belief that the two different groups should or should not be taught differently, and (d) instructors' autonomy to use different teaching processes. The major finding from this study was that teachers did use different teaching behavior when they perceived adults to differ from pre-adults (explained 30% of the variance in teaching behavior). Although instructors' belief that the groups should be taught differently was also related to differences in teaching behavior, it accounted for only 4% of the variance, and teachers' autonomy made no difference at all. An inverse relationship between age of the pre-adult group and difference in teaching behavior was also found (7% of the variance): teaching younger pre-adults (elementary and secondary age) was positively and significantly related to difference in teaching behavior. Beder and Darkenwald concluded that instructors teach adults differently from the way they teach pre-adults, and these differences can be explained to a considerable extent by teacher perception of differences, less to the age of the pre-adults, and still less to instructors' beliefs about different behavior. However, the researchers pointed out that these

conclusions were limited by being based on teachers' self-reports that were not confirmed by observations, by a restricted measure of teaching behavior, and by the possibility of non-response bias (estimated return rate: 53.5%). In a follow-up factor analysis, Darkenwald (1982) identified responsiveness and control, as underlying factors explaining the differences in teaching behavior. These factors were used to compare teachers of pre-adults with college instructors. The researcher found that (a) responsiveness and control were independent constructs, not two ends of a continuum; (b) some factors loaded with the opposite construct from the one in the original study; and (c) group discussion loaded with both constructs.

In an attempt to overcome the self-report limitation of Beder and Darkenwald's (1982) conclusions, Gorham (1985) studied a group of instructors of both adults and pre-adults using a modified version of the Rutgers Study of Teaching Instrument as well as observations of the teachers' instructional practices. She found similar results to Beder and Darkenwald on the questionnaires: teachers perceived adults to be different from pre-adults and reported a less directive and structured approach when teaching adults. However observations revealed that teachers' overall use of directive behavior was essentially the same in both adult and pre-adult classes. The directive behavior in teaching adults was often more subtle and non-verbal, whereas with pre-adults it was more overt. The differences among teachers in each category (teaching adults; teaching pre-adults) was greater than between adult and pre-adult classes of the same teacher.

A study conducted in Stockholm, Sweden (Touchette, Beder, Carrea, & Rubenson, 1983), which examined the teaching process in high schools and adult education classes by means of observations, questionnaires, and interviews, found teaching behavior to be essentially the same in both situations: teachers used traditional instructional methods 80% of the time in math classes, and 63% of the time in Swedish language classes. This did not correspond with the instructors' philosophy about teaching adults which was explained by

constraints from the instructional system, such as limited time and the pressure of the evaluation system.

To summarize these studies, although instructors might perceive adults to learn differently from pre-adults, might believe that adults should be taught differently, and might even report that they teach adults differently, there often was little difference in their teaching behavior. When their behavior did differ, it was not necessarily congruent with what was suggested in the literature as appropriate for instructing adults.

Andragogical Instruction

In several studies it was either explicitly or implicitly assumed that the appropriate approach for teaching adults was what the researchers defined as andragogical. Principles of adult learning that were the basis of the studies were derived either from the literature or from Knowles' (1980) recommendations.

James (1983) reported on a study in which a six-person research team identified nine principles of adult learning (defined as rules of conduct) from the literature and developed them into a questionnaire. The instrument was field tested by various researchers in five different settings: university extension, community college, business and industry, patient education and agricultural extension. Instructors in patient education, university extension, and agricultural extension perceived themselves as frequently implementing all the principles. In the other two settings, at least six of the recommendations were perceived to be implemented. In all of the settings except business and industry, the "supportive environment" principle was ranked highest. Oberle's (1981) doctoral dissertation consisted of the field testing of this questionnaire in the university extension setting. She found that extension instructors perceived themselves as implementing all principles frequently, however

a significant difference was found between the instructors' perceptions and their students' perceptions of their implementation of the principles.

In a similar manner, Lawler (1988) and six other doctoral students formulated a set of nine Principles of Adult Education. They then studied the application of these principles within different workplace settings. Lawler did her study within the training function of an accounting firm. Using interviews, observations and document analysis in a case study approach, she found a high degree of awareness and use of the recommendations within the training program, however, conflicts were also found between the recommendations and the organization's goals and traditions.

Beder and Carrea (1988) conducted a post-test only field experiment to determine whether instructors who were trained in the use of Knowles' instructional recommendations would have higher student attendance rates and would be more positively evaluated than instructors without such training. The experiment involved the use of a treatment group who received a nine-hour course of instruction, a placebo group who were in a program intended only to reinforce their current teaching behaviors, and a control group who received no training. The researchers found that attendance was significantly better for students of teachers with the andragogical training than for those with teachers who had no training, however, the relationship was not strong ($\rho = .10$); and attendance was not significantly better than attendance of students of teachers from the placebo group. They also found that training had no significant impact on students' evaluation of the instruction. Beder and Carrea advised caution in the use of these findings because of the small sample ($N=87$) and the low level of significance.

Little can be concluded from these studies other than that some adult education practitioners usually believed that what were identified as andragogical teaching principles were important, and that the practitioners studied viewed themselves as following the

recommendations. These studies usually employed a survey type data collection tool, the sample size was usually small, and in the case of Beder and Carrea (1988), their findings were based on a low level of significance ($p = .10$).

Collaborative Teaching-learning Mode

Although in this next group of studies it was also assumed that collaborative teaching practices (learner-centered; shared responsibility for planning and implementing learning activities) were most appropriate for teaching adults, the instrument used was able to identify a teacher-centered approach to instruction as well. The studies were based on the Principles of Adult Learning Scale (PALS), designed by Conti (1979) to measure the degree to which adult education practitioners supported and implemented principles of learning congruent with a collaborative mode of teaching. Conti constructed the instrument based on principles derived from adult education literature and theoretically linked to Flanders' Interaction Analysis Categories (FIAC), which is used to measure congruency between a persons' expressed beliefs and their behavior. Frequency of practice on each PALS item is measured with a five point Likert scale. High scores indicate support for a collaborative approach to teaching; low scores, support for a teacher-controlled approach; scores near the mean reflect support for teaching strategies drawn from both learner-centered and teacher-centered approaches. Construct validity was established by a majority (78%) of adult education professors on two juries; content validity was established through several field tests involving the use of Pearson correlations resulting in 25 items being significant at the .001 level, 8 items at the .01 level, 7 items at the .05 level, and 4 items at the .10 level; and criterion-related validity was established by correlating PALS scores with each of three possible scores on the Flanders Interaction Analysis Categories resulting in correlation coefficients of .85, .79, and .82. PALS was also found to have a test-retest reliability of .92 (Conti, 1979). Factor analysis of data

produced by follow-up studies (Conti, 1983) yielded seven discernable factors: (a) learner-centered activities, (b) personalizing instruction, (c) relating to experience, (d) assessing students' needs, (e) climate building, (f) participation in the learning process, and (g) flexibility for personal development (Conti, 1985). Use of the scale is limited by reliance on self-reports to determine teaching mode, and because it measures support for only two approaches to teaching (Conti, 1984).

The Principles of Adult Learning Scale has generated a large number of research projects, six of which were chosen as representative to review for this dissertation. Most of the studies examined not only instructors' support for the collaborative teaching mode, but sought to determine the interaction of such support with a variety of factors, such as training in adult education (Douglass, 1982), instructor's philosophy (Franklin, 1989; Pearson, 1980), students' perceptions of their instructors' approach (Clow, 1987), student retention rate (Graham, 1989), and student achievement (Welborn and Conti, 1986).

Findings were mixed among adult educators as to their support for either a collaborative or teacher-centered mode of instruction. Regarding the interaction of support for these modes of teaching with other factors, Douglass (1982) found that training in adult education was positively related to support for the collaborative mode. Franklin (1989) and Pearson (1980) reported that a Theory X managerial philosophy was related to support for a teacher centered approach to instruction among training and development professionals, however Franklin found Theory Y to be the predominant philosophy among her respondents.

The more interesting findings revolved around the relationship of students' perceptions, retention rates, and achievement to teaching mode. Clow (1987) found that students' perceptions of college instructors' teaching approach differed from the instructors' professed collaborative mode. Graham (1989) measured community college students' satisfaction with instructors' teaching approaches which she defined as their retention rate.

She found that instructors' who preferred strong teacher control had higher retention rates in the first half of the course, whereas instructors favoring the collaborative approach retained more students in the last half of the course. The only factor related to increased retention rate over the entire course length was allowing students to contribute to topics of discussion and to types of activities.

Welborn and Conti (1986) related support for the collaborative teaching mode to student achievement in university health-related programs. They measured achievement by cumulative grade point average. Teaching style was found to be significantly related to student achievement: students of teachers who moderately supported the collaborative mode had the highest achievement, students of teachers who strongly favored a teacher-centered approach achieved above the mean, whereas students of teachers with moderate or moderately high preference for the teacher-centered approach achieved less. High and low scores on PALS represented strong support for respectively, a collaborative or learner-centered approach to teaching and a teacher-centered approach. In other words, there was strong support for a definitive teaching style, whether it was learner-centered or teacher-centered (Welborn and Conti). Scores near the mean indicated that instructors drew from both modes for their behavior appearing to espouse a situational approach to teaching. However, Conti (1985) maintained that discussions with teachers indicated that moderate scores represented conflicting behaviors that confused students. This appeared to contradict Conti's earlier statement in the same article that the findings from another study of basic education instructors (Welborn & Conti, 1986: students in GED classes achieved greater gains with teacher-centered instructors; ESL students achieved more with collaborative teachers) "switch the general argument from a combative stance of which style is best to a more practical position of when is each style most appropriate" (p. 8). This may be a case of confusing instructors' espoused theories of teaching and learning with their theories in action,

which can be contradictory because of contextual and social constraints, a point which was made in the Stockholm study cited earlier (Touchette, Beder, Carrea & Rubenson, 1983).

The results from this group of studies were again mixed: some instructors preferred a collaborative teaching mode, others, a teacher-centered mode. In some cases, students' perceptions agreed with those of their teachers, in other cases they differed. Achievement appeared to be related to a definite teaching style whether that was andragogical or pedagogical. The data collection instrument was the same for all of these studies, and the sample sizes appeared to be somewhat larger than in other groups of studies, however it is difficult to make a precise assessment because the research reports did not always provide the response rate. And as noted earlier, the results were limited because they were based on self-reports of only two pre-determined modes of teaching.

Educational Orientation

This next group of studies, although similar in intent to the previous group, was based on a different instrument, the Educational Orientation Questionnaire (EOQ), developed by Hadley (1975). This instrument was designed to measure instructors' attitudes toward education along an andragogy-pedagogy continuum. As with PALS, high scores indicated an andragogical orientation whereas low scores signified a pedagogical approach. Items, measured with a five-point Likert scale, were constructed around six elements of the practitioner's role: purpose of education, nature of the learners, characteristics of the learning experience, management of the learning experience, evaluation, and relationships of educator to learners and among learners. Instructors with an andragogical orientation were thought to believe in collaboration with learners and that learners are responsible for their own learning. Pedagogically oriented teachers were thought to believe in instructor and agency control over the knowledge and skills to be learned as well as over the learning process (Holmes, 1980).

After a field test among 409 adult educators from a variety of programs, the EOQ was found to have a test-retest reliability of .90 with a coefficient alpha of 0.94 (Hadley, 1975). Factor analysis identified eight factors: pedagogical orientation, andragogical orientation, competitive motivation, pedagogical teaching, social distance, student undependability, standardization, and self-directed change, with pedagogical and andragogical orientations being dominant.

A number of studies using the EOQ or a modified version of it were found and four were chosen to review (Holmes, 1980; Kerwin, 1979; Logue, 1983; O'Gorman, 1981). All of the studies examined the interaction of educational orientation with other factors. Kerwin (1979) found college technical and general education teachers, and female instructors to have an andragogical orientation to teaching; he found college vocational instructors to be pedagogically oriented. O'Gorman (1981) found adult basic education teachers also to be pedagogically oriented. Holmes (1980) found that differences in educational orientation were continuous rather than dichotomous, so the same person may have elements of either.

Three studies investigated the relationship of instructors' behavior to their educational orientation. Logue (1983) found that teachers' classroom behavior as measured by a researcher-developed observation schedule was related to educational orientation, however Holmes (1980) found that interpersonal behaviors as measured by the Fundamental Interpersonal Relationship Orientation Behavior Scale (FIRO-B) were moderately but significantly related to the andragogical orientation but not to the pedagogical orientation.

Several researchers examined the interaction of learners' perceptions or retention rate and instructors' educational orientation. Kerwin (1979) found differences between students' perceptions and instructors' perceptions of the instructors' educational orientation. O'Gorman (1981) found that a higher retention rate among basic education students was related to the andragogical orientation of their instructors. Logue (1983) reported that students' course

evaluations were related to instructors' behavior but not to a similarity or dissimilarity between instructors' and students' educational orientations.

Like inquiries based on PALS, these studies were limited by reliance on self-reports to determine educational orientation, and by the assumption that there are only two approaches to teaching of which the andragogical approach is preferred for teaching adults. They present varied results from which nothing conclusive could be derived.

Instructional Style

Two other studies investigated instructors' assumptions about teaching and learning but defined them differently. Brostrom's (1979) Training Style Inventory (TSI) organized clusters of beliefs around four approaches to instruction that he labeled behaviorist, structuralist, functionalist and humanist. It was used as a component of a five-part survey by Williams (1984) in four adult education settings (four year college, community college, compensatory education program and continuing education program) to investigate educators' teaching style, teaching practices, and perceptions about discrepancies between the two. He found that instructors used elements of various styles, but on the whole, humanism and behaviorism were equally favored, and structuralism, which involved the most instructor control, was the least preferred. However, community college instructors demonstrated a preference for structuralism and favored humanism less strongly. Teaching experience and previous student experiences were factors most closely related to teaching style.

Moore (1982) investigated the interaction of learning style and teaching style among adult basic education teachers using the TSI and Kolb's Learning Style Inventory (LSI). Only one relationship was found: the assimilator learning style was significantly related to the

behaviorist teaching style, which was the preferred style among the instructors. The structuralist teaching style was least favored.

In these two studies, it was not assumed that any one particular teaching style was preferred, but that teaching style was related to philosophical assumptions. There are not enough similar studies in this group to draw any conclusions, but one of the more interesting findings was that the same instructor used elements of various styles.

Instructors' Ways of Thinking

The following studies focused more on instructors' teaching experience as a whole than on individual elements of the instructional process. In various ways, they describe instructors' perceptions, understandings, and ways of interpreting their experiences of teaching. No one understanding was assumed to be "correct," although for specific purposes one may have been judged more effective than others; all elements of the instructional experience were usually eligible for discussion, although some studies were more focused than others. All of these researchers used unstructured or semi-structured interviews, and some included other field study techniques. The underlying assumption of these studies was that instructors' professional behavior is influenced by the way they understand and interpret the instructional situation.

Ulichny (1989) did an ethnographic case study of an English as a Second Language classroom to explore how the teacher's values, past experiences, beliefs and professional knowledge interacted with classroom pressures (from students as well as the institution) to produce the classroom interactions. The study continued over an entire semester and included audio-taped observations and interviews with the teacher and students. The researcher found that the instructor's involvement of the learners in the instructional process

changed from the earlier lessons where discourse was adjusted to allow for students'

participation at their appropriate levels of ability, to the later lessons, where more autonomous student participation was encouraged.

Bray (1986) focused on the content and processes of the thinking of instructors of landscape design during teaching. She also compared their reported thoughts with their teaching behavior and investigated the effects of individualized feedback on ways of thinking and observed behavior. In the initial phase of the study, Bray used a stimulated recall technique, which included open-ended interviews with ten instructors. She then repeated the stimulated recall process with four instructors to compare their thoughts and behavior after receiving feedback. Content analysis of the data revealed that teachers' thinking centered on their students (especially students' knowledge and attention), instructional procedures, and self-awareness; and that their thought processes included interpretations, intentions, and perceptions. Unlike some of the studies described previously, she found that instructors' behavior did correspond with their thinking, and that their thought content, thinking processes, and teaching behavior changed after receiving feedback from the researcher.

Several studies investigated conceptions of teaching using a phenomenographic research approach similar to the one being reported in this dissertation. Larsson (1983a, 1983b, 1986) did a study of instructors' conceptions of their professional world by interviewing 29 teachers of adults in the Swedish adult education system about how they understood and made sense of such elements as knowledge, teaching skills, teaching problems, characteristics of the learners, and the use of learners' experiences in teaching. From semi-structured interviews, he (1983a) derived two qualitatively different conceptions of teaching: (a) content should be presented and structured for the students (strong teacher control), and (b) students should be involved in interpreting and structuring the material to be learned (weak teacher control). Teachers with a B conception viewed the students' conception of teaching as

wanting the teacher to control the instructional situation. Therefore, teachers who thought

that students should be involved in the educational process, yet did not want to control the learning situation, yielded to the wishes of the students and used what the teachers perceived as inadequate teaching methods. Other teachers who also prized student involvement, urged students to be involved in participative learning against their will, thus attempting to control the instructional situation, which was against their professed beliefs. Larsson analyzed these results in terms of the students' desire for success in the educational system which the students perceived to be measured by periodic reports from the teachers or grades. The students knew that it was difficult for teachers to evaluate their progress when the teachers did not control the teaching-learning situation, therefore they forced teachers with a B conception to be in control. Larsson concluded that such situations could be problematic for learning because of studies (Marton, Hounsell & Entwistle, 1984) that found that when students focused on the reward (grades) rather than the material to be learned, an understanding of the content was not attained because the students utilized a surface approach to learning.

From further analysis of the data, Larsson discovered various ways in which teachers use learners' experiences as part of the instructional process (1983b). Literature frequently recommends that instructors utilize the experiences of the learners as resources for learning, however instructors' interpretation of this admonition in practice has not often been explored. Larsson uncovered five different ways of defining the experiences to be used: (a) the practical experiences of one or several learners providing information for the remaining learners; (b) life experiences of the majority of the learners providing a focal point for the topic being taught; (c) learners' job experiences to be used in the instructional situation; (d) learners' viewpoints that conflict with the perspective being taught; and (e) life experiences providing an openness for understanding alternative perspectives. According to Larsson, the

most useful interpretations of learners' experiences in the classroom are D and E because

they offer the possibility of different perspectives. Only if instructors are aware that learners may have different interpretations of the phenomenon being studied, can the instructors attempt to change the learners' perspective to the authorized or scientific perspective.

From his data, Larsson (1986) also identified four conceptions of instructors' skill development over time. The ways that teachers interpret changes in their skills as a result of experience is useful for their own ongoing professional development. The conceptions discovered by Larsson were: (a) with experience in teaching, instructors' focus moves from their own actions and planning to the actions and understandings of their students; (b) with experience, instructors acquire knowledge about how different aspects of instruction function so as to be able to choose the most effective; (c) with experience, instructors change from wanting to transmit quantities of information to focusing on principles and ways of thinking; and (d) with experience, teaching becomes methodical so that the instructor loses interest, ceases to grow, and becomes less effective. Although these views are different, they are not mutually exclusive in any one teacher, and in fact could be seen "as aspects of a common professional culture emanating from teaching experience rather than from teacher training" (p. 42).

Samuelowicz and Bain (1992) sought to discover how academic teachers understood their experiences of teaching. They interviewed thirteen teachers, seven in distance education and six from a traditional university. Using phenomenographic analysis, they found five qualitatively different conceptions: teaching is (a) supporting student learning, (b) directed toward changing students' understanding of the world, (c) facilitating understanding, (d) transmitting knowledge and attitudes toward knowledge, and (e) imparting information. Continuing their analysis, Samuelowicz and Bain extracted five dimensions from these conceptions to compare them: (a) the expected outcome of learning, (b) knowledge gained or constructed by the student, (c) students' existing conceptions, (d) directionality of teaching,

(e) control of content. Each of these dimensions was then characterized in a bi-polar manner, for example, the expected outcome of learning was interpreted as being represented in either qualitative or quantitative terms. For each dimension, the poles were labeled A or B, and the respondents' comments were coded as being A or B or a combination of AB. The five conceptions of teaching were then defined in terms of student-centeredness (B) or teacher-centeredness (A), with the distribution of the teachers' coded responses determining the centeredness of each conception. Based on the type of teaching preferred in other research, student-centered teaching was classified as higher and teacher-centered teaching as lower. By counting the number of A's and B's, the conceptions were ordered from highest (supporting student learning) to lowest (imparting information). The researchers concluded that (a) there are a limited number of conceptions of teaching held by academic teachers, (b) their coding system is a useful tool for delimiting and ordering conceptions of teaching because it can be used to compare findings of different studies, and (c) the dimensions they extracted from the conceptions can help to define student-centeredness and teacher-centeredness.

Other phenomenographic research into conceptions of teaching was a series of studies by Pratt (1992) in which he investigated understandings of teaching of both learners and instructors. These were cross-cultural studies done in several Asian countries as well as Canada and the United States. Over 250 adults were interviewed to determine their understandings of teaching. Pratt derived five conceptions of teaching from the data of several studies: teaching is (a) delivering content, (b) modeling values and knowledge, (c) cultivating intellectual development, (d) nurturing personal agency, and (e) seeking a better society. He found that there was as much difference in conceptions within cultures as across them, although the understanding of teaching as the cultivation of the intellect was not found

experience the beliefs and intentions which inform teachers' understandings of teaching as well as instructional activities; (b) beliefs about normative behavior and desirable states of existence which pervade conceptions of teaching are often culturally bound; and (c) although individuals often held two or more conceptions of teaching, one conception usually predominated.

In a handbook for teachers in higher education, Ramsden (1992) identified three theories of teaching from a variety of interviews and research by several researchers. Although the focus of this book is prescription for practice rather than reporting research, it is included because of its close affinity to the research reported in this dissertation and because it was based on phenomenographic studies of learning and teaching. The theories or conceptions found were: (a) teaching as telling or transmission in which the validity of the content being transmitted is not questioned, the teacher is the source of information, the learners are passive receivers, and learning occurs when learners absorb a sufficient amount of information; (b) teaching as organizing instructional activities in which learners are the center of focus, the teacher manages the involvement of the learners in a multiplicity of activities regardless of appropriateness for the content, and learning automatically follows; (c) teaching as enabling learning in which learning is the focus, knowledge is seen as being actively constructed by the learners, instructional techniques are related to the content, and teachers work with the learners in a cooperative relationship to help them change their understanding of the topic (learning). These conceptions were described as hierarchical because each succeeding one includes and builds on the characteristics of the preceding one.

Ramsden devised a cyclical model of teaching for helping teachers change their understandings of teaching and improve their practice. In the first place, teachers' theories or conceptions of teaching influence how they think about each aspect of teaching such as how

to teach a particular topic. At the same time, the teachers' perceptions of factors within the

teaching context also affect their thinking about teaching. Their understanding of teaching directs their "teaching in action" (p. 119) or all the activities that are related to teaching. The teachers' reflections on the quality of their teaching then affect their theories of teaching and their future teaching actions to complete the cycle. Ramsden concluded that excellent teaching involves focus on: (a) the content to be taught, (b) the understandings the learners are to achieve, (c) the best way for learners to construct that understanding, (d) the students' understanding of the content in the beginning and throughout the course, and (e) a conception of learning as changing understanding and conceptualization.

This group of studies is difficult to summarize because the focus was so different for each one. In most cases, there was an assumption that learner-centeredness was better than teacher-centeredness, although Ramsden (1992) focused on learning-centeredness. It was also evident that teachers understood and interpreted the instructional experience in various ways, and in one case, understanding and teaching behavior changed over the length of the course. Larsson (1983a), Pratt (1992), Ramsden, and Samuelowicz and Bain (1992) concluded that instructors' conceptions of teaching were influenced by the contexts, in Pratt's case, particularly the cultural context. Pratt, Ramsden, and Samuelowicz and Bain found one common conception, that teaching is imparting or transmitting content, and Larsson's conception that content should be presented and structured for the students was similar. Of necessity, these studies involved a small number of respondents because of the indepth nature of the data collection and analytic processes, although Pratt combined data from several studies. The results of this type of inquiry are not meant to be generalized in the sense that teachers in other settings can be assumed to have these same conceptions. However, the set of categories constructed by the researcher can be used to investigate other teachers' conceptions. The findings also provide a more comprehensive understanding of how teaching is viewed in adult education.

Other Relevant Literature

When the interview data for the study being reported in this dissertation were analyzed, two topics outside the adult education literature that had already been reviewed were found to be of sufficient importance to warrant examining additional sources. Those topics were knowledge and learning and the literature consulted will be reviewed here.

Understandings of Knowledge

Important differences in the way the respondents thought about knowledge were found in the data even though knowledge was not a primary focus of the research. Two studies on ways of thinking about knowledge by Perry (1970) and by Belenky, Clinchy, Goldberg, and Tarule (1986) were consulted to help in the clarification of those differences.

Intellectual Development During College

In the early '50's and 60's, Perry (1970) and his associates interviewed approximately 140 college students at Harvard, some of whom were interviewed during each of their four years, about their college experience. The purpose of the study was to discover how the students "responded to the relativism which permeates the intellectual and social atmosphere of a pluralistic university" (p. 4).

This study that was at first intended to describe the variation in thinking of the students, resulted in a scheme of nine positions mapping the intellectual, moral, and world view development that the students progressed through over their college years. These positions move from a basic dualism in which the world is viewed in terms of two poles of rightness and wrongness, to commitment to a point of view or some life focus. Three major positions were identified, and within each position are three sub-positions. Toward the end of

the main position the emergence of the next main position is found. In the first position of

basic dualism, the world is assumed to exist in terms of absolutes, right (usually identified with the self - "we") vs. wrong ("others"). Authority is usually equated with rightness and is embodied in the instructor "whose role was to mediate (teach)" the "Right Answers" (Perry, 1970, p. 9). Knowledge is the "quantitative accretions of discrete rightnesses to be collected by hard work and obedience" (p. 9). Meaning, rightness, and agency or power exist outside the knower. Dualism persists in the next two positions, but is gradually modified as a multiplicity of views are perceived. In the fourth position, multiplicity is accepted, often as problematic, resulting in an assumption that all knowledge is uncertain and any opinion is acceptable, making each individual his or her own ultimate authority. Perry described this position as "double dualism" with the right-wrong of the first position as one polarity and "personalistic diversity" as the other (Perry, 1981, p. 84). Absolutes are doubted altogether or at least perceived to be inaccessible.

Multiplicity gives way to contextual relativism in which a plurality of viewpoints are perceived to exist and are to be validated on various contextual factors, such as evidence, source, logic, and patterns of thought. The capability for "meta-thinking" is evident in which ways of thinking including one's own can be explored and compared (Perry, 1981, p. 88). "The person, previously a *holder* of meaning has become a *maker* of meaning" (p. 87). "Knowledge is qualitative" and contextual (p. 80)). The learner's sense of responsibility for careful and critical thinking within particular contexts becomes internalized.

In the sixth position, there is a need for conscious commitments to a point of view, a career, a personal relationship, or values in the midst of relativism. Ambiguity and paradox are accepted as part of the human condition to be transcended as much as possible by personal commitments. The last three positions describe the development and balancing of such commitments throughout life.

Perry (1970) characterized his scheme as developmental in that "more complex forms are created by the differentiation and reintegration of earlier, simpler forms" (p. 44). Each succeeding position includes the assumptions of the previous ones and persons thinking in the style of the later position can understand those assumptions, but the reverse is not true: persons with the thought patterns of earlier positions can not understand assumptions of the later positions. At each position some challenge is perceived to the beliefs and assumptions of the earlier positions, so that they have to be examined and reformulated.

Perry was concerned that persons would be evaluated in terms of their growth along this scheme. He acknowledged that the scheme was culturally bound, and that it was the researchers' *opinion* that the last positions represent optimal ways of responding to the human condition. Any judgement as to a person's maturation level on this scheme is relative and contextual, "that is, delimited by the context of the scheme" (p. 45). The purpose of the study "was to determine whether the scheme provided a useful ordering of the students's own reports of their intellectual and moral experience" (p. 45). Following Piaget, Perry (1981) also made the point that "individuals mature their cognitive structures at different rates in different areas of their lives" (p. 89). In other words, a person's academic way of thinking may be different from his or her social way of thinking, although such thought patterns can be transferred from one area of life to another.

Women's Ways of Knowing

One limitation of Perry's work was that although he interviewed both men and women for his original study, only data from the interviews with men were used to develop his scheme. Belenky and her associates (1986) sought to hear the voices of the other half of the human race by interviewing 135 women about their experiences of learning and knowing.

These women had recent formal educational experience or were from what the authors'

identified as "invisible colleges" (p. 12), agencies that assist women with parenting. The data from indepth interviews yielded five "epistemological perspectives" (p. 15) which described different ways in which these women learned about and perceived their world. The authors did not assume that these categories were developmental, but left that question to future research.

Belenky et al. used the term "voice" to classify the various points of view found in their data because the women who were interviewed spoke in terms of speaking and listening, rather than with the visual metaphors more commonly used for knowing, like seeing, perceiving and viewing. The first epistemological perspective identified was that of silence or having no voice which is characterized by a total, mindless dependence on authority. This perspective is oriented to the present, the real, the concrete and specific. Authorities are viewed as all-powerful persons who expect women to know what they are to do. The women in the study were powerless, passive, and subordinate to authority figures, usually men, and they saw life in terms of the polarities of good and evil. In the sample interviewed, few expressed this perspective, but the authors felt it was important to describe it as the "anchoring point for our epistemological scheme, representing an extreme in denial of self and in dependence on external authority for direction" (p. 24).

The next perspective is that of received knowledge in which all knowledge, even self-knowledge, is received from external authorities who possess the single "right answer" (p. 37). Learning is collecting facts in order to reproduce them rather than understanding ideas to form opinions. This perspective is most like Perry's basic dualism, however the women appeared to "listen" to the authoritative word of others, whereas in Perry's study, men identified themselves with the authorities who possessed the right answer which the men were more apt to expound to others. In the pluralistic atmosphere of higher education, both

Belenky and Perry found this position to be short lived.

Subjective knowledge is Belenky et al.'s third perspective wherein there are no absolute truths, only opinions grounded in the persons holding them. This perspective is still dualistic in that there is still one right answer, but it now exists within the person rather than external authority, and true knowledge comes from intuition and personal experience. However, rather than employing rational processes to construct meaning from their experiences, these women saw themselves as "conduits through which truth emerges" (p. 69). Like Perry's position of multiplicity, everyone is her own expert, but while men defend their right to their opinion and attempt to persuade others of it, women tend to communicate the uniqueness and limits of their opinions with statements like "*'It's just my opinion'*" (p. 66). For women with this perspective, the criterion for what is right is what is pragmatic and relevant to their experience.

In the fourth perspective of procedural knowledge, truth is seen as being not "immediately accessible" (p. 94), but must be sought through observation, analysis, and reflection. The focus moves from what is learned or known to how opinions are formed, so that knowledge becomes a process of looking at ideas in different ways. Belenky et al. distinguished between two forms of procedural knowledge, separate knowing and connected knowing. In separate knowing, which is more like Perry's relativistic position, the emphasis is on the impersonal application of analytic techniques beginning with an adversarial stance wherein contradictions are sought and intuition is suspect. Connected knowing begins with the subjective viewpoint that truth comes from experience, making it difficult to really gain access to the knowledge and opinions of others. Access to ways of thinking is built on trust and empathy rather than distrust and suspicion, and its purpose is to understand rather than to judge.

Constructed knowledge involves the integration of the voices of others with personal, intuitive knowledge. Knowledge is constructed by different individuals in different contexts

with different points of view resulting in different answers to the same questions. Ambiguity, complexity and contradiction are tolerated and even welcomed as necessary components of identifying with and responding to different situations. The analysis of opinions and knowledge involve not so much "what" questions as "who," "why," and "how" questions. The self is also used as a tool for understanding through which points of connection are sought between what is being examined and personal experience. Unlike the men in Perry's positions of commitment, in which a career choice that would dominate their lives was usually involved, for the women in Belenky's study commitment to a career was seen in relation to other aspects of their lives.

Both of these studies specifically sought to discover how knowledge and thinking were understood by two different groups of people, men and women. Although there are many similarities in the main categories of thinking, subtle differences that are revealed demonstrate that a developmental scheme derived from one group cannot be wholly generalized to the other. These findings will be compared with the findings of this dissertation in Chapter Five.

Understandings of Learning

Another element of instruction that emerged as important in the data but was covered only incidentally in the preceding literature review was learning, therefore, a work by Beaty, Dall'Alba and Marton (1990) which built on and extended earlier research by Säljö (1979) and investigated understandings of learning, will be reviewed at this time. These authors analyzed in greater detail a portion of data from a larger study of students at the Open University in Great Britain. In the original study, a longitudinal, phenomenographic approach was used in which students were interviewed near the beginning of their course work and at the end of the first and subsequent years about their experiences of studying at the Open University.

Beaty et al. found the same five conceptions of learning that Säljö did plus a sixth conception:

Learning is (a) increasing one's knowledge, (b) memorizing and reproducing, (c) applying, (d) understanding, (e) seeing something in a different way, and (f) changing as a person. Moreover, they found a characteristic that was common to all conceptions of learning which they called "the essence of learning" (p. 7). Learning was always understood as having an acquisition phase and an application phase implying to the researchers a temporal dimension as well as a notion of permanence. In other words, time elapses between the acquisition phase and the application phase during which learning becomes permanent. They found a division between conceptions A-B-C and conceptions D-E-F based on the concept of meaning which they found to be absent from the first three conceptions but central to the last three. Furthermore, there is a pairing between Conceptions A and C, and between Conceptions D and E. Conception A represents only an acquisition phase of learning (increasing knowledge) whereas Conception C represents the application phase of Conception A. Conception B contains both an acquisition phase (memorizing) and an application phase (reproducing). In all of the first three conceptions, learning is thought of as the quantitative increase and acquisition of information and facts to be later reproduced or applied. The difference between Conceptions A-C and Conception B is that in the former, learning is thought of in the context of the person's life-world, whereas in Conception B, the context is the person's study situation.

Meaning is a central component of Conceptions D-E-F, and E is related to D as C is related to A. In other words, Conception D represents the acquisition phase of learning (gaining meaning), and E represents the application phase (seeing something in a different way implying that once meaning of a phenomenon is gained, a person's way of viewing it changes). The context of Conception D is the study situation, and of Conception E, the person's life-world. Conception F is a further elaboration of E: once meaning is gained and

the individual's perspective changes, he or she changes as a person. Another aspect of this

work by Beaty et al. is their structural analysis of the conceptions of learning which will be explained in the next chapter.

In each conception, there are also different ways in which learning is understood to take place. In Conception A, one's knowledge is increased by taking information and storing it in the mind. In Conception B, memorizing and reproducing occurs by taking and storing facts (as in Conception A), or by repeated acts of learning. Learning as applying (Conception C) takes place by retrieving information that was stored and using it. Understanding, in Conception D, is accomplished by looking into or deriving meaning from learning material. In Conception E, a phenomenon is viewed in a different way by gaining more knowledge about it or by becoming skillful at analyzing it. And in Conception F, one changes as a person by viewing things differently, by a continuous process of growth, or by seeing oneself as an agent of change rather than the object of change.

It will be seen in Chapter Four, that in the study being reported in this dissertation, there appeared to be a relationship between the respondents' thinking about instruction and their thinking about learning. This work by Beaty et al. helped to clarify that relationship and also provided a useful tool for the structural analysis of the conceptions of instruction.

Conceptual Framework

In the first chapter of this dissertation, instruction was defined as a set of actions undertaken by the person recognized as a teacher in a given learning situation with the intention of bringing about learning. This very basic definition does not account for all the factors involved in instruction. In this study, the interest was in studying not the objective reality of instruction, but instructors' experiences of instruction involving their relationship with different aspects of the phenomenon. Therefore it was thought important to broaden the

concept of instruction to guide the development of interview questions and initial data

analysis. This was done by developing a conceptual framework, loosely based on one from Deshler and Bernardot (1979), but primarily derived from the literature reviewed for the study. Placed here in the dissertation, it also serves as a summary of what was found in the literature review.

A conceptual framework may appear inappropriate in a phenomenographic study because predetermined categories of meaning are not usually imposed on the data. However, this framework was developed as a guide for the preliminary stages of research, not as the final categories for interpreting the data. It will become evident in Chapter Five, that as a result of the data gathered, the sub-elements of each major element of instruction did indeed change because what the respondents found to be relevant was not necessarily what was found in the literature. Furthermore, in the seminal work of phenomenographic studies, Experiences of Learning by Marton, et al. (1984), even though conceptual frameworks were not presented as the basis for individual studies, frequent references to various learning theories (e.g., Piaget's stages of cognitive development, Biggs and Collis' SOLO taxonomy) were made. This suggests that the researchers were guided by these frameworks at the beginning of their research even though they frequently concluded that such frameworks did not fit all learning contexts (Dahlgren, 1984).

From the review of the literature, research appeared to focus on six elements: (a) the context, (b) the instructor, (c) the content, (d) the processes, (e) the learner, and (f) learning. As depicted in Figure 1, the instructor and learners relate through the content and processes to bring about learning (which may or may not take place). This relationship takes place within a context which in this study is identified as the workplace. Rather than assuming that any one of these elements has greater or more significant influence than the others on instructors' thinking about instruction, the study sought to investigate them all equally in the interviews to discover their meaning and significance to the respondents. The description of

each element that follows was derived from the literature that has just been reviewed.

However, because the works on knowledge and learning in the last sections were not reviewed prior to data collection, they are not reflected in the conceptual framework used to guide the interviews.

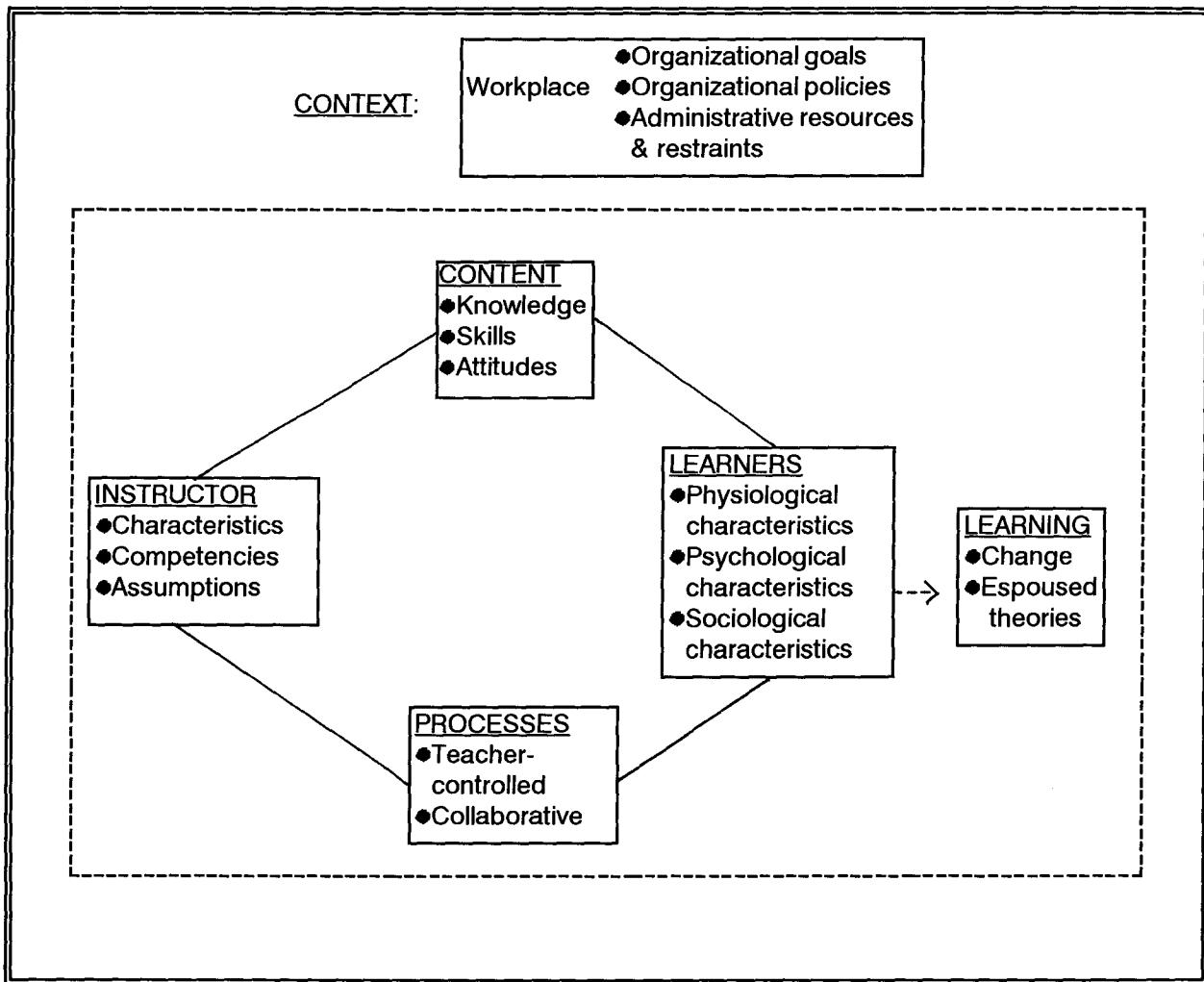


Figure 1. Elements of instruction,.

Element One: Context

Each of the six elements depicted in Figure 1 was investigated by researchers in a variety of ways, either as the main topic or as a factor in studies of other issues. The context

was not a main topic in the literature reviewed, but emerged as a contributing factor to instructors' understandings and assumptions about instruction. Several researchers (Knox 1980a; Larsson, 1983a; Pratt, 1989, 1992; Touchette, Beder, Carrea and Rubenson, 1983) concluded that the context does affect conceptions of instruction as well as instructional processes and learning. A variety of contextual factors can be assumed to impact instruction either positively or negatively. For example, organizational goals determine the type of training that is provided through the human resource development function. Administrative resources and restraints, such as funding, equipment, physical space and time available for training might affect the instructor's ability to instruct according to her or his espoused theories of instruction and learning. Organizational policies, such as the compulsory or voluntary nature of training, and additional pay for time spent in training outside of regular work hours, may affect the learners' attitude toward and motivation for learning, which in turn can impact the instructor's teaching practice.

Element Two: Instructor

Figure 2 illustrates the major research issues regarding the instructor of adults. The sub-elements listed below are among those that were factors in a variety of studies and were thought to be relevant in a study of instructors in workplace settings. The characteristics of instructors are important so that the sample being studied can be accurately described. They were sought in the questionnaire given to the respondents after the interview.

There are many competency studies of teachers of adults, as described in Chapter Two. In general, they appeared to fall into the first three categories listed under "Competencies" in Figure 2. However, Pratt (1989) identified mastery of such knowledge as only the first stage of teaching competency. He labeled the second stage as problem solving

in which teachers are able to adapt their professional knowledge to differing situations. And

at the highest level of competence, instructors are able to critically examine their practice in terms of underlying values.

INSTRUCTOR		
Characteristics	Competencies	Assumptions
<ul style="list-style-type: none"> ●Gender ●Age ●Professional training ●Time spent teaching ●Experience teaching adults 	<ul style="list-style-type: none"> ●Knowledge of subject matter ●Knowledge of learning processes ●Knowledge of instructional processes ●Problem solving ●Critical reflection 	<ul style="list-style-type: none"> ●Purpose of instruction ●Nature of the learners ●Learning ●Instruction (role, style, principles of practice, problems, evaluation) ●Context

Figure 2. Research pertaining to the instructor.

An assumption of the research of this dissertation is that choice of actions-- in this case, instruction --is based not only on professional knowledge, but on how instructors interpret various elements of instruction (their conceptions), which in turn, are influenced by what they believe to be true (their assumptions). In Figure 2, listed under "Assumptions" are elements of the instructional experience found in the literature that appeared to be pertinent to this study. "Context" was already discussed, and the "Nature of the learner," and "Learning," will be discussed in subsequent sections.

In the literature, the purpose of instruction was sometimes assumed to reflect instructors' philosophies and values, although it may also represent their adoption of the aims of the organization for which they work. The purpose of adult education most frequently prescribed was the development of increasingly independent learners. Instruction, which is the central focus of this research project, was studied in the literature in a variety of ways. An instructors' style of teaching was usually identified as either teacher-controlled or collaborative. The instructors' role refers to the way in which teachers define their

relationships and responsibilities in the instructional situation. For example, they may relate to the learners and the content as a model, resource, mentor, facilitator, instructor, or co-learner and identify their responsibilities differently for each role. Much of the literature focused on principles of teaching and learning, although in the strict sense they are not principles but rather guiding rules of practice. Because the literature usually prescribed guidelines, it seemed important to find out what principles guided the respondents. Evaluation in the literature usually referred to the success with which instructors attained the goals of the course, and in some cases to the relationship of such achievement to instructors' values. Closely associated with evaluation are the instructors' problems and difficulties which are important for discovering what might keep teachers from being able to act in accordance with their values and espoused theories.

Elements Three and Four: Content and Processes

Content is one of the elements of instruction through which instructors relate to learners. Instructional processes are usually determined by it, and in a phenomenographic study, experiences are studied in relation to their content. In general, content was usually described in terms of knowledge, skills, and/or attitudes. Not much research was found that focused on content within the adult teaching experience; however, the literature included many prescriptions for ways in which content should be handled. Thus, various authors recommended that it be meaningful, organized, appropriately sequenced and paced, and related to previous knowledge. For this research project, content was explored primarily through the respondents' description of the course they taught and as the focal point from which to discuss their experience of instruction.

Instructional processes are important because it is through the processes that the content is made attainable for learning. Processes also represent the other element through

which the instructor and learners relate to each other. Instructional processes were mentioned frequently in the literature, usually in terms of guidelines for practice that were presented as practical implications of learning principles. They were usually characterized as being either teacher-controlled or collaborative, the latter being regarded by many as preferred for the instruction of adults. Many strategies, which were meant to be somewhat applicable across situations, were recommended to the instructor of adults, such as (a) climate building; (b) diagnosis of needs and understandings; (c) providing information, advance organizers, opportunities to practice skills, and feedback; (d) challenging perceptions; and (e) presenting alternative viewpoints. Specific techniques were studied for their effectiveness or recommended for particular objectives, such as individualized, programmed, competency based, discovery, Socratic, decision-making, support group, discussion, lecture, and critical reflection techniques. Within this study, instructional processes were explored in relation to the content by asking how the instructor sought to achieve instructional goals.

Element Five: Learner

From the attention given to the learner in the literature on teaching adults, it is obvious that this was considered an important element of instruction. Part of Cross's (1981) framework was borrowed to organize research on the learner as illustrated in Figure 3. The literature provided recommendations for instructional processes related to all of these characteristics. For example, instructors may have to make accommodations for adults as their physical faculties such as eyesight and hearing decline.

Regarding the psychological characteristic of self-concept, adults were often portrayed as perceiving themselves to be more independent than dependent, though other writers suggested this is a situational condition. Although there was disagreement among authors

about developmental stages, most agreed that adults continue to grow and develop throughout their lives, and that each new phase of growth brings with it certain challenges. A fundamental assumption that instructors of adults are expected to have is that adults continue to maintain the ability to learn, although it differs from person to person and changes as one ages. Researchers found that learners' attitude toward and motivation for learning are factors affecting learning as are their learning needs and expectations, therefore, it was recommended that instructors explore these factors early in the instructional situation. Researchers, especially the Gothenburg group (Marton et al., 1984) found that learners' pre-conceptions of the subject being studied affect learning outcomes. Research was also done relating learners' styles of learning to instructors' teaching style.

LEARNER		
Physiological characteristics	Psychological characteristics	Sociological characteristics
<ul style="list-style-type: none">•Age•Health•Gender	<ul style="list-style-type: none">•Self-concept•Developmental stage•Ability to learn•Attitude toward learning•Learning needs•Conceptions of subject matter•Learning style	<ul style="list-style-type: none">•Life situation•Societal role•Culture•Ethnicity•Life history/experience•Organizational role

Figure 3. Research pertaining to the adult learner.

Not as much research has been done in the area of sociological characteristics, however, it was often suggested that teachers of adults base instruction on needs that arise out of learners' societal roles. In the workplace, instruction is probably most often oriented to the learners' organizational role. Adults' life experiences were also thought to be factors in learning, although not always in the positive manner that many adult educators assumed.

Because instruction involves a relationship between teacher and learners, and because many

of the learners' characteristics were assumed to be factors in learning outcomes, it is important to discover instructors' understanding of and assumptions about the adult learner.

Element Six: Learning

Although instruction was defined here as an intentional activity directed toward an outcome identified as learning, the literature clearly pointed out that learning does not always follow instruction. At the same time, teaching and learning were always closely aligned, for example when the instructional process was referred to as the teaching-learning process. In an attempt to remain focused on instruction, research on learning was not included in the preliminary literature review, however many of the teaching principles and recommendations for practice that appeared in handbooks and research studies were based on the writers' beliefs about conditions necessary for learning to occur (espoused theories). For example, the principle that learning was more apt to take place if learners received feedback on their progress became formulated into the recommendation that instructors should provide feedback to the learners. Learning was not always clearly defined, but it usually was seen as involving change of some sort, either in behavior, in understanding, or in perspective. Because the purpose of teaching is learning, it seemed important to explore respondents' assumptions about learning.

This conceptual framework accounts for the literature reviewed for this dissertation on the instruction of adults. It served as a guide for the interviews that were conducted as well as for the beginning stages of data analysis. As the data were analyzed, the framework changed, particularly the sub-elements, to reflect what the respondents found relevant in their conceptions of instruction. These revisions will be discussed in Chapter Five.

Conclusions

This chapter illustrated the way instruction is understood in adult education literature. Guidelines for teaching adults were often given in handbooks for instructors who had little or no instructional experience. Although there was no lack of recommendations and admonitions regarding the instruction of adults there were few real principles or general laws that can be substantiated or even tested. Several models were devised to explain the elements involved in adult learning and teaching, however none of them explained all of the factors affecting the instruction of adults, and there was little evidence that they apply only to adults.

The research examined for this dissertation related to what teachers of adults brought to the instructional situation, such as competencies, assumptions, orientations, perceptions, and understandings. Most often the assumptions were designated as andragogical and were based on an underlying assumption that adults differ from pre-adults and therefore should be taught differently. The most frequently derived admonition was that learner-centered and collaborative styles of instruction are most appropriate when instructing adults. The opposite and less favored instructional style is teacher-centered and controlled. The studies reviewed did not demonstrate any clear support for these two dichotomous approaches to instructing adults, much less for a single preferred approach. Even though many instructors thought the collaborative approach to be more appropriate for instructing adults, they often did not teach collaboratively, and at times felt unable to teach in that way because of institutional constraints. One finding that appeared in various ways in different groups of studies was that the same instructional style is not appropriate in every context suggesting a situational approach rather than an exclusively collaborative approach.

More importantly, the lack of "compelling findings of theoretical significance" (Shores, 1985, p.168) suggests that it may be time to reconceptualize and reframe the research

question. Rather than asking if instructors "hold andragogical assumptions and report using them in practice" (Shores, p. 168), more basic questions need to be asked - what do teachers of adults think about their instructional experience, how do they interpret and make sense of it, what are their conceptions of instruction?

That is the question addressed in this study, but in a specific context: What are the qualitatively different conceptions of instruction held by instructors in the workplace? The question is not limited by preconceived assumptions about what those conceptions should be. The next chapter of this dissertation describes the research design, including the sample that was studied, as well as the data collection and analytic techniques.

CHAPTER III

DESIGN OF THE RESEARCH STUDY

In this chapter the design of the research study will be described, beginning with an explanation of the research approach, followed by a description of the data collection procedures, the sample that was studied, and the process of data analysis.

Phenomenography

The general purpose of this study was to discover how instructors of adults in the workplace conceive of and understand instruction. Phenomenography was chosen as the research approach because its purpose is to describe "the qualitatively different ways in which people experience, conceptualize, perceive and understand various aspects of, and phenomena of the world around them" (Marton, 1986, p. 31). Examining the subjective meaning that people ascribe to a phenomenon can enable researchers to understand hitherto unexamined dimensions of that phenomenon.

Characteristics and Assumptions

As a research approach, Marton (1986) characterized phenomenography as being experiential, relational, contextual and qualitative, all of which are interrelated concepts. It is experiential in the sense that researchers utilizing this approach are interested in studying the world or some phenomenon in the world as it is experienced and interpreted by human beings. Marton identified this as a second-order perspective in contrast to a first-order perspective which examines phenomena in the world as defined by scientific concepts and methods of observation. In other words, if this study had been done from a first-order perspective, it would have been assumed that there is a public conception of instruction that should have been understood by the respondents, and some aspect of their teaching would

have been scientifically observed and explained. However, in phenomenography, the respondents' are not assumed to hold a single defined understanding of the phenomenon, but may hold various different conceptions and these differences become the object of investigation. The question becomes "How do instructors of adults conceive of instruction?" rather than "How do they teach?" Phenomenographers "try to look with them [the respondents] and to see the world as they see it" (Stalker, 1989, p. 39).

Within a second-order perspective, it is assumed that people ascribe meaning to a phenomenon as a result of their experience with it, and "act on their interpretation of the situations they find themselves in...." (Säljö, 1988, p. 36). It is further assumed that individuals' experiences involve a relationship between them and their world. Thus the research interest is not in observing and describing a phenomenon apart from the actors' understanding of it nor in describing instruction as an abstract entity, but in describing this person-world relationship (Marton, 1986). Neither is the phenomenographer interested in individuals' pre-reflected experience, but in their *interpretation* of experience. Experience and understanding, along with other mental acts, are assumed to be intentional, that is to be always "directed towards something beyond themselves" (Marton & Neuman, 1988, p. 3), to be about *something*. Therefore, in phenomenography, people's conceptions are described within a particular context, in relation to specific content. Predetermined categories of understandings are not imposed on the data (Marton & Svensson, 1979), because "situational variation in how people construe meaning is the natural point of departure" (Säljö, p. 7).

In phenomenography, the data, which consists of individuals' statements about a phenomenon, are used as a starting point for describing the nature of the phenomenon. In this qualitative analysis, the categories of description which emerge from the data and are organized into an outcome space, are the primary findings of the study. The end result is a

description of variations in the way people relate to and experience a phenomenon. Although

phenomenography adopts an experiential, "from-the-inside" research perspective, instead of or in addition to the observational, "from-the-outside" perspective, the two approaches are complementary because they provide different types of understanding (Marton & Svensson, 1979, p. 472).

In this study, the focus was on how instructors of adults experienced and conceptualized instruction, what they thought about instruction, rather than on what the researcher could observe about their characteristics, teaching behavior, or the instructional situation. Because phenomenographers examine a phenomenon in relation to a context, and believe conceptualization to be intentional, the research began by asking respondents to focus on a particular course that they had taught. Marton (1981) argued that "process and content are two different aspects constituting a logical unity; there can be no process without a content and there can be no content except in terms of mental activity....In other words,...operatory structures, conceptions as psychological entities are epistemologically unattainable independently of context and content" (pp. 184 & 194). In this study, it was assumed that instructors' mental activities (processes) of understanding and interpreting instruction were related to the content they taught and the particular context in which the instruction occurred. Because conceptions are assumed to vary among instructors and even within the same instructor in different contexts, and are assumed to relate to actions within the situations, it is important to bring to light these often invisible understandings of the instructional process (Lindblad & Hasselgren, 1983).

Conceptions

The hallmark of phenomenographic research is the conception of meaning held by individuals regarding the phenomenon of interest, the "filter through which the world is seen if it is to be meaningful" (Säljö, 1988, p. 37). It is often used synonymously with perception

meaning the result of interpretive, cognitive processes used to make sense of experiences. However, Webster's Third International Dictionary (Gove, 1981) indicated that perception is the immediate awareness of a thing or experience through the senses, whereas a conception is the "product of abstract or reflective thinking" (p. 470). "Conception" goes beyond the immediate sensation of encountering an experience to understanding based on previous experience as well as beliefs, assumptions, and theories of action. Furthermore, understanding is viewed as "interpretation in terms of a pattern or a complex of meanings...." (Marton & Svensson, 1979, p. 481). So conceptions are the results of reflecting on the meaning not only of the different elements of an experience, but also on the relationship among the elements. In effect, viewing "conception" in this way, separates the cognitive processes of detecting and decoding sensations. In discussing communication theory, Hills (1987) stated that in ordinary usage, perception includes both detecting and decoding. However, instead of saying "we heard or perceived a car door slam," it would be more appropriate to say "...that we sense or detected sound waves which, given our previous experience, we decode, or interpret, as the slamming of a car door" (p.11). In reality, the move from perception to conception is so quick that they appear as one. However, it is useful to separate them for study so that the richness of conceptions can be probed more thoroughly.

In the complex experience of instruction, instructors encounter or perceive various elements, then interpret each element in relation to the other elements to form conceptions of instruction. Conceptions represent integrated wholes wherein individual elements are understood in relation to each other as well as to the content being taught and the context in which it takes place. Instructors' conceptions are assumed to influence not only their instructional actions, but future perceptions as well. Because the move from perception to conception to action happens so quickly in real life, and because only an *interpretation* of a

person's perceptions can be known, it is nearly impossible to gain access to individuals' perceptions. However, in the research interviews, instruction was separated into various elements, and the respondents were asked to share with the researcher their understanding of them. This made accessible their decoding of their perceptions which has been identified as conceptions.

Conceptions are formed not only from the immediate perception of a phenomenon, in this case instruction, but also from individuals' past experiences of the phenomenon. Instructional experiences, in turn, are interpreted in the light of various other cognitive processes such as theories of action, models of teaching, assumptions, beliefs and values. Assumptions, beliefs and values are similar in meaning and relate to what individuals hold to be true about various aspects of reality. Assumptions are more or less "taken-for-granted beliefs" (Brookfield, 1992b, p. 13) the truthfulness of which has usually not been investigated. Values are more fundamental beliefs "...about how one ought or ought not to behave, or about some end-state of existence worth or not worth attaining" (Rokeach, 1968, p. 124). According to Rokeach, beliefs cannot be directly observed but can be inferred through words and actions. In this study, respondents' beliefs about the elements of instruction were investigated in a variety of ways, for example, by asking them what they were trying to achieve, how they defined learning and teaching, what they thought was important to know about the learners, what principles or metaphors guided them in their teaching, and how their thinking about instruction had changed with experience.

Theories of action refer to the rationale for what individuals do, reflected in this research by the respondents' beliefs about the effects of instructional actions. However, the theories given by individuals to explain their actions, labeled espoused theories by Argyris & Schön (1974), may or may not be the same as theories-in-use which are the real explanations. It was not the purpose of this research to investigate the respondents' theories

of action, so no attempt was made to probe beyond their espoused theories. Espoused theories of action were of interest only insofar as they were antecedents to conceptions. They were evident in the respondents' answers to questions about their reasons for acting as described and about what they thought the conditions for learning were.

Models of teaching are frameworks or tools for thinking about and simplifying the instructional process (Flanders, 1987). They enable instructors to decide what to teach, how to proceed, and what materials to use. At the same time, models "impose a point of view" (p. 20), because in emphasizing some aspect of teaching, other aspects are deemphasized.

Models of teaching are frequently considered to be metaphors because they compare what takes place in instruction to some other activity. For example, Shulman and Elstein (1975) compared teaching to the clinical decision making of physicians involving "planning, anticipating, judging, diagnosing, prescribing and problem solving" (p. 35). Models are used by researchers not only to describe the instructional process, but also to prescribe the process that instructors should follow. As with theories of action, models of teaching were not a primary focus of this research but were sometimes evident in the way respondents described how they approached instruction as well as the metaphors they used.

Models of teaching are probably most frequently learned through training or reading and provide a structure for planning an instructional event. Formal educational theories may be learned in the same way, but they appear to become translated into more practical theories of action that provide the rationale for actions believed to be effective (Sanders & McCutcheon, 1986). Beliefs about teaching and learning are derived in part from models of teaching and educational theories learned, (although more fundamental beliefs about human nature and life purposes are also implied). However, these formal models and theories are then confirmed or questioned by the instructor's teaching experiences.

These are some of the more obvious cognitive processes that are assumed to precede and possibly inform the way instructors interpret and ascribe meaning to instruction. Instructors' conceptions of instruction are then linked to their styles and approaches or the ways in which they carry out instructional actions. Instructors' styles are related to personality and are relatively consistent, often unconscious preferences for acting in particular ways (Pintrich, 1990). Their approaches are the strategies they choose depending on their goals, the organization's culture, the learners' needs and their own preferences. In this research, the respondents were not observed while instructing because their actions were not being investigated, therefore their styles and approaches were apparent only as perceived and described by them.

Although these cognitive processes and conditions, namely instructors' beliefs, theories, models, conceptions, styles and approaches, have been separated for descriptive purposes, in reality they are interactive, dynamic activities of the mind that precede and inform the instructional process. This is not a definitive delineation of cognitive processes - others could be involved and other researchers might label and describe them differently; but from the literature reviewed for this study and the interviews completed, the processes described here appear to be the primary ones requiring clarification.

The variation in the way a phenomenon is interpreted can be the result of differences in knowledge, personal history, and even culture. In this sense, "people do not *have* specific conceptions of phenomena in the world around them" (Säljö, 1988, p. 42) as more or less permanent characteristics. They rather interpret a particular situation using a certain conception of reality that may or may not be useful in other situations. Säljö noted that "in a complex society there is a rich variety of conceptions of reality providing varieties of explanatory frameworks that are used for different purposes" (p. 38). In order to achieve a

fuller understanding of how a phenomenon is conceptualized, the aim of this type of research

is to uncover the variations in conceptions rather than the essence of the phenomenon (Lindblad & Hasselgren, 1983). The focus is on the variation itself, not the sources of variation which are open to future investigation (Marton, 1981).

Through empirical research, Marton (1986) and his research team found that there are "a limited number of qualitatively different ways in which phenomena are comprehended" (p. 37), although the pool of meanings is always open to the construction of new conceptions. The pool of meanings can vary from one study to another temporally and/or contextually. For example, different meanings may be found at different points in time because earlier ones were dropped as superstitious or naive and replaced by new ones. Or the pool of meanings can vary depending on the people who were incorporated into the study. In this study of instructors in the workplace, it cannot be assumed that the resulting pool of meanings would be the same as one resulting from a study of elementary teachers even though some aspects may be the same. However, the understandings of instructors of adults in the workplace can contribute to a more comprehensive understanding of teachers in general and their world (Marton & Svensson, 1979).

Individuals are assumed to hold various conceptions about phenomena around them, but the only way their conceptions can be made known to others is by their descriptions of how they interpret the object of investigation. The researcher assists in the elicitation of these understandings in a variety of ways including interviews. Following the data collection, the researcher must analyze individual data by abstracting the respondents' understandings of the phenomenon into a super-individual, "structured pool of ideas, conceptions, beliefs underlying the possible interpretations...of reality" (Marton, 1981, p.198). It is from this pool of meanings that qualitatively different categories of description are derived to comprise the research results. The resulting categories of description, called conceptions in phenomenographic

research, are the researcher's way of describing the respondents' experience of the

phenomenon of interest (F. Marton, personal communication, July 20, 1989). Because the understandings are abstracted from individual data into a pool of meanings, it is not to be assumed that the resulting conceptions necessarily represent the exact conception of any one respondent, in fact, they probably do not. They are rather a composite of meanings constructed by the researcher. F. Marton (personal communication, July 20, 1989) likened it to the distinction between the terrain and a map of the terrain--the cartographer's map *represents* the terrain; the researcher's conceptions *represent* respondents' conceptions of their experiences.

The conceptions are then formed into a structure called an "outcome space" so that the conceptions can be separated into component parts. Unlike a cognitive map, which is assumed to represent the mental organization of concepts within one individual, the outcome space depicts the variations in conceptions of many individuals (Lybeck, Marton, Stromdahl, & Tullberg, 1988). Marton (1988) called an outcome space a "set of possibilities" (p. 188).

The conceptions are thus frequently not characteristics of the individual, rather, they are characteristic of ways of functioning. Instead of seeing the different conceptions as representing different groups of individuals, the intraindividual variation found invites us to think in terms of an abstract system of description, a gigantic space of categories, in which the individuals move--more or less freely--back and forth. (Marton, 1984, p. 62)

The resulting outcome space which has been decontextualized or lifted out of "the context in which [it] has been discovered makes it possible for us to apply [it] to other contexts and to see structural similarities [as well as variations] between different kinds of entities" (Marton, 1984, p. 63).

Collection of the Data

A problem with interpretive research is that, unlike empirical-analytic research, there are no codified algorithms for the collection and qualitative analysis of data (Marton, 1986).

To be true to the assumption of the contextual nature of human experience, the research

methods must be adjusted to the situation and the problem being studied (Säljö, 1988). F. Marton (personal communication, July 7, 1989) pointed out that the only general rule for the design and implementation of a phenomenographic study is that there are no general rules, only examples of other research conducted in this manner, and guidelines provided by other phenomenographers.

Setting and Respondents

For reasons stated in Chapter One of this proposal, the setting of interest for this research study was the workplace, and the focus was on instructors or trainers in this setting. Because a purpose of phenomenography is to reveal the variation in conceptions among respondents, and because it is assumed that people's conceptions are related to the context, it was decided not to focus on one workplace setting, but to draw from a variety of contexts to maximize the variation. What was common to the sample studied was that they were all members of the Puget Sound Chapter of the American Society for Training and Development (ASTD). Anyone who is involved in or is interested in training, education, or personnel development is eligible to belong to this organization, resulting in a broad based membership. However, with 539 members listed in its 1990 Directory, it was the largest pool of possible respondents working in a variety of settings available in the Seattle, Washington area where the research was to be conducted.

With the aim of achieving a sample of twenty volunteer respondents, one hundred names were drawn from the Directory based on an indication from the person's title that he or she trained or instructed adults in the workplace, and on geographical proximity to the researcher. A letter (see Appendix A) was sent, explaining the research project, asking potential respondents to self-select according to whether they had instructed or trained other adults in a work-related setting within the previous year, and requesting that they volunteer to

become involved. A return card was included with the letter, and appointments were scheduled with those willing to be interviewed.

Borg and Gall (1983) identified the use of volunteers as respondents as a form of sampling bias because volunteers are not usually representative of the larger population to which research results are often intended to be generalized. However, in the case of phenomenography, the purpose is to identify qualitatively different conceptions of meaning regardless of whose conceptions they are rather than the generalization of the individual conceptions to other groups of people. If the resulting set of conceptions were to be used in a future comparative or experimental study, then sampling procedures for that type of research would be followed (F. Marton, personal communication, July 18, 1989). It was also noted by Borg and Gall and by Hammersley and Atkinson (1983) that for ethical and practical reasons, using volunteers is the only way in which much research in the social sciences can be accomplished.

A sample size of twenty was determined by reviewing other phenomenographic studies (e.g., Larsson, 1983a; Lindblad, 1984; Renstrom, Andersson & Marton, 1988; Stalker, 1989). Sample sizes in these studies ranged from twenty to ninety, but in the case of the larger samples, the studies were conducted by a team of researchers, and/or the studies extended over a period of years. Because the data collection and analysis is "often very time-consuming...it [is] necessary to have as few subjects as possible in the study while still having some guarantee that a range of possible descriptions will be achieved" (Lindblad, 1984, p. 6). It was anticipated that recruitment of respondents from ASTD with its wide variety of workplace settings would assure variation in conceptions. Of the 100 letters sent, twenty-six members indicated that they were willing to be interviewed. A sample of twenty-two members of ASTD, eighteen female and four male, were finally interviewed. The largely female sample is a reflection of the membership of the organization. The population of

members listed in the 1990 directory was 70% female and 30% male, and that ratio was maintained among those invited to participate in this study. Of those invited, only four males (18% of the sample) volunteered to be interviewed. Reasons for the large female population of ASTD can only be surmised; for example, in businesses, women are more apt to be assigned to the training function. Another possible reason is that many people move from teaching in formal educational institutions to training in business, and teaching has traditionally been a largely female profession. It is difficult to know the reason for the lack of male volunteers for a study such as this.

A questionnaire was given to each respondent at the end of the interview to obtain demographic data to aid in describing the sample. They were questioned about their age group, education, teaching experience, and training role. For a group of volunteer respondents, this sample was surprisingly diverse. As far as age was concerned, one of the respondents was in her twenties, two were in the 55-64 year age group, with the majority between 35 and 55. Their education ranged from a high school diploma to doctoral degrees, the majority having college undergraduate degrees. Of those holding degrees, most were in education, communications, or business, but with some as diverse as theater and geography. The majority of respondents had some training in adult education, and four of them had training certificates. A little over fifty percent had from one to ten years experience instructing adults, whereas the remainder had between 11 and thirty years experience. A majority had other instructional experience, particularly in K-12 and university.

In the recruiting of volunteers for this study, it was hoped that a variety of workplace settings would result, and that was indeed the case. The breakdown of respondents according to work category is presented in Table 1. Six were external consultants, meaning that they contracted to instruct in a variety of work settings. Of the internal consultants, one

was in telecommunications (cellular phone service); four were in finance (banking and

insurance); four in health care; one in a law firm; two in manufacturing (computer software and lumber products); three in public service industries (utilities and transportation); and one in retail. The common denominator among the respondents was that they all trained adults in a workplace setting and all were members of ASTD. However, as can be seen in the table below, the settings in which they were employed were quite diverse.

Table 1

Type of Trainer

EXTERNAL		INTERNAL/INDUSTRY						
		Communications	Finance	Health	Law	Manufacturing	Public	Retail
		6	1	4	4	1	2	3

N = 22

Interviews

Although there are a variety of techniques through which people's conceptions of a particular phenomenon can be discovered, "interviewing has been the primary method of phenomenographic data collection" (Marton, 1986, p. 42). In this study, semi-structured interviews of forty to forty-five minutes were conducted and tape recorded. Borg and Gall (1983) stated that "the semi-structured interview is generally most appropriate for interview studies in education. It provides a desirable combination of objectivity and depth and often permits gathering valuable data that could not be successfully obtained by any other approach" (p. 442). Few of the phenomenographic studies reviewed for this study indicated the length of interviews; however, Renström, Andersson and Marton (1988), as well as Stalker (1989) described their interviews as lasting forty to forty-five minutes.

Lincoln and Guba (1985) referred to an interview as "a conversation with a purpose" (p. 268). F. Marton (personal communication, July 20, 1989) called for interviews to be as open and yet as focused as possible. It is important to begin with one or two direct but open-ended questions in order to focus the interview, but then to let the respondents "choose the dimensions of the question they want to answer. The dimensions they choose are an important source of data because they reveal an aspect of the individual's relevance structure" (Marton, 1986, p. 42). The interviews were directed in that if the respondents did not voluntarily address all six elements of instruction identified in the conceptual framework, the interviewer prompted them to discuss them. The interviews were open in that the respondents discussed those elements in whatever ways they chose resulting in the identification of sub-elements which were not necessarily the same as those found in the literature. In this way, the interviews became more or less unique conversations.

The interviews proceeded in the following manner. The purpose of the research study was reviewed, a written consent form to tape record the interview was presented for the respondent's signature (see Appendix B), confidentiality regarding the respondent's identity was assured, length of the interview was again agreed upon, and some general questions were asked to relax the respondent. Because individuals' understandings are assumed to be contextual, the respondents were asked to describe briefly the externals of a course they had recently taught. Then, because there are differences in individuals' relevancy structures, they were asked what the first things were that they thought about when they knew they were going to teach this particular course. Their response was summarized back to them and the meaning they ascribed to various elements of instruction were probed from there. It was at this point that each interview took on its own character.

To attain deeper understandings of instruction, the remainder of the interview questions were designed at three levels (see Appendix C). First, at the most superficial level,

respondents were asked to describe their instructional activities in regard to the course they identified as having recently taught. To obtain a deeper level of understanding, they were asked their intentions in regard to their instructional activities (sometimes in response to answers to the descriptive questions), that is, what they were trying to accomplish. At the deepest level of meaning, they were asked about values underlying their actions; in other words, their rationale for what they did, their guidelines and principles of practice. The other way of trying to lead the respondents from the concrete to the abstract was that after questioning them about the course they taught in regard to its content, the learners, and the context, they were asked more generalized questions, for example, "What is learning?", "What gifts do you bring to teaching?", "What challenges you?" This was usually the turning point in the interview from mere descriptions of what they did to their underlying assumptions, beliefs, and values about instruction.

When the questions were exhausted or the time negotiated for the interview was up, it was brought to a conclusion with a summary of the main points of the respondent's replies. A brief, structured questionnaire was given to the respondent to obtain the demographic information reported in the above description of the sample (see Appendix C). The respondents were also asked whether they were interested in a meeting at a later date after the data from all the interviews had been analyzed. Appreciation for the instructor's time and effort was expressed.

Method of Analysis

The analysis of phenomenographic data "is distinctive and rigorous" (Entwistle, 1984, p. 17) because rather than aiming at a narrative description of respondents' thoughts as expressed in interviews, it attempts to describe categories of thinking in terms of relationships between the categories and the context, and of differences among the categories. The

researcher's "competency has to be 'bracketed' in order to be maximally open" to responses "without imposing one's judgment....Yet one's own understanding of the field has to be used in order to grasp the [respondents'] ideas in depth and to relate them to each other" (Lybeck, Marton, Stromdahl, & Tullberg, 1988, p. 87).

The analysis of data may begin after a limited number of interviews have been conducted in a process somewhat similar to the constant comparative analytic method described by Glaser and Strauss (1967). However, there is an important difference between these two methods. In the constant comparative method, the analysis proceeds at the same time as the data collection and the researcher often returns to the setting to either reinterview respondents who have already been interviewed or to interview additional people related to emerging themes in the analysis. In phenomenographic work, the respondents are not usually interviewed again as part of the ongoing analysis nor are additional people interviewed. However the individual transcripts are constantly compared with each other as the categories of description are being derived. The results of the research study are conceptions of the phenomenon, in this case, conceptions of instruction, which may have been based in adult education literature or are simply the practical understandings of experienced instructors, because both types of understanding can provide a basis for instructors' ways of thinking about instruction (Larsson, 1983b).

Derivation of Conceptions

The analysis process consisted of a series of steps in which the interview data were read and reread a number of times, then sorted and resorted into categories according to various criteria. The first step was to select thought units, labeled units of meaning, from the interviews that appeared to express how the respondents thought about and understood the six elements of instruction described in the conceptual framework. Particular attention was

paid to beliefs, assumptions, values, theories of action, intentions, and principles of practice that were implicit or explicit in their comments. The meaning of the comments was interpreted not only from the words themselves, but in relation to the entire interview. These units of meaning, in the form of quotations from individual interviews, made up a "pool of meanings" (Marton and Säljö, 1984).

In the second step, attention moved from the individuals in the context of their particular interviews to the meaning of the comments in relation to other units of meaning in the pool. For each element of instruction, quotations with similar meanings were then grouped together for analysis. For ease of handling, the quotations were broken down into phrases that captured the essence of their meaning with frequent references back to the full quotations to assure the meaning was not lost. Each like group of units of meaning were examined to discover the variation in understandings among them. Because the units of meaning of each element of instruction were analyzed separately, the elements had to be reassembled to provide a holistic representation of instruction. This presented a problem, because although some respondents presented a single or at least a dominant conception of instruction, this was not true for all of them. At least one person for each conception began to emerge as an exemplar for that conception, so her or his thinking about each element became the criterion for the way in which that element was understood. Throughout this process of analysis, references back to the individual interviews were constantly being made to assure that their meaning was preserved even as the units of meaning were being examined in relation to the units of meaning from other respondents. This is an iterative process of examining each unit of meaning in two contexts, the context of the individual interview and the context of all the interviews (Marton & Säljö, 1984).

Structural Analysis of the Conceptions

Most phenomenographic studies depict the outcome space by showing the relationship among conceptions through an analysis of different aspects of each conception, a process that was somewhat obscure in the early reports of phenomenographic studies (on learning). However, more recent examples of how this process of structural analysis could be accomplished have been made available. Two works were reviewed in Chapter Two, one a study by Samuelowicz and Bain (1992) of conceptions of teaching of academic teachers, and the other an analysis of conceptions of learning by Beaty, Dall'Alba, and Marton (1990). In the first study, certain dimensions of the conceptions found were characterized in a bi-polar manner, and that characterization was then used to code the respondents' comments resulting in an ordering of the conceptions from highest to lowest. In the second study, conceptions were analyzed in terms of meaning and structure. Although both methods of analysis were meant to compare phenomenographic conceptions, the process used in the second of those studies was used to describe the outcome space of the findings presented in this dissertation, because this process makes it possible to account for similarities and differences that would have been lost in a simple bi-polar analysis.

Differences and similarities among conceptions were shown through an examination of the component parts of a conception. A conception is made up of "dialectically intertwined" (Beaty et al., 1990, p. 2) components identified as *referential* aspects and *structural* aspects. The referential aspect is the global meaning, the *WHAT* aspect, of the phenomenon being studied. The structural aspect shows HOW the elements of the phenomenon "are delimited and related to each other" (p. 2). The structural aspect is defined in terms of two components, an external and an internal horizon. The *external horizon* shows how the phenomenon is limited to its context; the *internal horizon* demonstrates how the elements of the phenomenon are perceived and related to each other. Beaty et al. further cited Renström

as having "demonstrated that within the same conception, different component parts of the phenomenon may be focused on and thus a figure-ground variation can be found" (p.2), so that the same conception may have more than one "how" aspect depending on what element is emphasized.

To provide an example of structural analysis, one conception of learning from Beaty et al. (1990) is included here. (They found that a complete conception of learning had a WHAT component and several HOW components, all of which had referential and structural aspects. However, the complete form was seldom expressed by a single respondent. For the sake of brevity, only the WHAT component will be presented here). In Conception A, learning was understood as increasing one's knowledge. This understanding is the global meaning, the WHAT or referential component of the conception. As part of the referential aspect, learning was further described as being quantitative and directed toward discrete pieces of information. The *external horizon* of the structural aspect was the person's life world, an interpretation which requires some explanation. The subjects of the study were students studying at the Open University in Great Britain, so that some conceptions of learning were clearly limited to a study context. However, in this conception, learning was not seen as distinct from the respondents' everyday life, but rather was part of it, therefore the external horizon was their life world. The *internal horizon* was comprised of component parts of the referential aspect of the conception: the learner with some knowledge at a given time, the learner with more knowledge at another time, and the transition between the two conditions. (The "transition" gave rise to the "how" components of the conception, each of which was then analyzed in terms of their referential and structural aspects.)

Even though this method of analysis was used to compare the conceptions of instruction found in this study, some observations are necessary. First of all the study being reported is about instruction, not learning, so the analysis cannot be done in exactly the same

way as Beaty et al. (1990) did it. Secondly, this study began with a conceptual framework that specified the elements of instruction, and it was around these elements that the interviews were organized. Although the interviewer was open to other elements that might appear during the interviews, no substantively different elements were found in the data. So for the internal horizon of the conceptions, it was from the conceptual framework that the predominant elements were identified and defined.

The relationship among the conceptions that was depicted through the above analysis uncovered those aspects of the phenomenon, instruction, that were the primary objects of the respondents' focus (Renstrom, Andersson, & Marton, 1988). It also portrayed various ways in which the different elements were understood. Unlike empirical-analytic research where this type of description might constitute the first step toward the testing of hypotheses, in a phenomenographic study, the conceptions of meaning arranged in an outcome space are the primary results of the research study. This is because "the nature of what is being described is in itself considered to be problematic" (Entwistle & Marton, 1984) and is investigated. However, hypotheses could be derived from the outcome space and tested in subsequent research.

Confirmation of Results

In scholarly research, there is concern for the accuracy of the research findings and for the replicability of the research design. In empirical-analytic research, these concerns are addressed by measures of validity and reliability. There is no less concern for these issues in research such as phenomenography which relies principally on the qualitative analysis of data, they are just defined differently and determined in other ways.

Reliability represents the degree to which a research study could be duplicated by another researcher, who, using the same methods, would obtain the same or similar results

(LeCompte & Goetz, 1982). It immediately becomes obvious that this would be difficult in any research employing semi-structured interviews where each interview can be different. It is also inconsistent with the phenomenographic assumption that context affects the way in which individuals interpret their experience. In interpretive research, external reliability (the extent to which other researchers would consistently find similar results in the same or similar settings) can be enhanced by detailed descriptions of the contexts, the respondents, and the research methodology. For the present study, such descriptions have been provided in this dissertation; furthermore, both written and taped verbatim transcripts of the interviews are available from the researcher; and whenever possible, the rationale for methodological decisions has been provided.

To provide a further check on the external reliability of the analysis of the interview data, seven transcripts were given to two of the researcher's colleagues in education. Each colleague examined five transcripts so that three of the transcripts were reviewed by both. They were asked to complete the first step in data analysis which was to identify units of meaning that represented the essence of the respondents' thinking about the six elements of instruction. As criteria, they were given questions that the researcher considered while identifying units of meaning: What seemed important to the respondents? What were their beliefs, values, guidelines relating to instruction? How did they relate to the learners? How did they view their responsibilities? How did they define instruction and learning? What was consistent or inconsistent throughout the transcript? The co-judges agreed with the original researcher on an average of 82% of the units of meaning. To determine this agreement, for each co-judge, the total number of possible units of meaning for all seven respondents was found by adding those identified by the original researcher to the additional ones identified by the co-judge. Then the number of times that the original researcher and co-judge were in

agreement was added and divided by the total possible units of meaning. The two resulting percentages were added and divided by two (see Table 2).

Table 2

Units of Meaning Agreed Upon by Researcher and Co-Judges

	Total Units of Meaning	Agreed Upon Units of Meaning	%
Co-judge ₁	152	120	79
Co-judge ₂	137	115	84
Average			82

The 82% agreement between the co-judges and the researcher provides some assurance that other researchers employing the same method of abstracting units of meaning from interview data would obtain similar results.

In interpretive research, another type of inter-judge data analysis is used to establish internal reliability, which is the degree to which others would match conceptual categories to data in the same way that the original researcher did (LeCompte & Goetz, 1982). Because the categories of description are constructed by the researcher, it cannot be assumed that another person, reading the data, would discover the same conceptions (Marton, 1986). "In fact...it follows from a constructivist conception of reality that the possibility of interpreting reality differently applies to the activity of describing conceptions of reality itself" (Säljö, 1988, p. 45). Rather, the conceptions should be defined with sufficient clarity that another person would place the data within the same categories. Marton (1986) likened it to two botanists independently discovering the same plants on the same island. It would not be expected that

they would both classify the plants in the same way, but that the explanation given by each one as to the way in which they classified the plants would make sense to the other one.

"Co-judging can then be understood as a process of testing if it is possible to communicate the findings to another person in a sufficiently explicit way that this person would classify the statements made by interviewees in the same way as the researcher has done" (Säljö, p. 45).

F. Marton (personal communication, July 20, 1989) considered a phenomenographic study to be sufficiently reliable if it obtains inter-judge reliability of at least 75%.

A colleague, who is an educational psychologist and who had read the proposal for this study and was therefore familiar with the tasks of phenomenographic analysis, was the independent judge. She was provided with descriptions of each of the conceptions, as well as an explanation of the differences among the conceptions and examples of quotations used to illustrate each conception. These definitions, identified as "judgment instructions" (Säljö, 1988, p. 45), were taken from the data analysis chapter (Four) of this dissertation. She was also given a random sample of quotations that were used to substantiate the analysis. This sample ($N=38$) represented approximately 25% of the quotations for each conception. She was then asked to indicate the conception with which the quotation was linked based on the description of the conceptions that was provided. The results were that the independent judge related 92% of the quotations to the same conceptions as the researcher did, thus providing evidence of sufficient reliability for this study.

Validity refers to whether the data collected authentically represents reality. Internal validity is the extent to which the descriptive categories derived from the data coincide with the experiences of the respondents. External validity is the degree to which research conclusions can be applied to other groups. LeCompte and Goetz (1982) argued that internal validity may be the major strength of this type of research because of the close adherence to the respondents' words in the construction of descriptive categories. An

epistemological assumption of phenomenography is that reality has meaning only as it is experienced by humans, so it may be argued that the only authentic representation of reality is the description provided by those who experienced it. F. Marton (personal communication, July 20, 1989) equated validity with the meaningfulness of the conceptions constituting phenomenographic research results. He argued that validity can be judged by examining the internal logic of the relationship (a) between the conceptions and the data and (b) among the conceptions in the outcome space. Inter-judge reliability, or the degree to which another person would place the same data in the researcher's conceptions (92% in this study), is an indication of internal validity. Just as in empirical-analytic research, reliability is a necessary but not sufficient criterion for validity.

External validity usually refers to the degree to which research findings can be generalized to other settings. It has already been stated that the main intention of phenomenography is not to generalize but to provide a description of the variation in individuals' interpretations of their experience of some phenomenon. The "generalizability of understanding is [to] be investigated and not assumed" (Renstrom, Andersson, & Marton, 1988, p. 12). This can be achieved by comparing the conceptions of instruction in this study to findings from other studies, especially where they have focused on the same types of experiences in the same or similar settings. Even though the distribution of people over the conceptions may vary in other settings, the set of categories in the outcome space of conceptions is generalizable to other instructional settings and can be used in future studies to discover the sources of variation in conceptions and to compare various groups of persons as to the situations in which they hold certain conceptions. Likewise, "the rediscovery of the main constructs by independent researchers in differing contexts" (Entwistle & Marton, 1984, p. 226) attests to the validity of the research findings. A comparison of the findings of this study with those of other studies will be provided in Chapter Five.

In interpretive research, the burden for determining the applicability of results is on future perusers of the research who must decide whether the context and the respondents are similar enough to their situation to be useful (Lincoln & Guba, 1985). Therefore, the researcher must provide sufficiently thick descriptions of the findings and the methodology so that others can make that determination.

In this study, the instructional behavior of the respondents was not investigated nor could it be definitively inferred from their conceptions of instruction; however, the research did make visible those aspects of the situation on which the respondents focused when making instructional decisions (Lindblad & Hasselgren, 1983) as well as their interpretation of various elements of instruction. Reflection on their own relevancy structures and on alternative ways of constructing instructional situations can lead instructors to a "qualitatively better way of thinking" (Marton, 1986, p. 46) about instruction.

Limitations of the Study

As with any research, this study is limited because of the research design. First of all, the use of volunteers as respondents meant that only the type of person who is likely to volunteer was heard. In this study, the majority of the volunteers were white, middle-class females, probably accurately reflecting the membership of the American Society for Training and Development making the generalization of findings somewhat problematic. However, the most generalizable aspect of a phenomenographic study is the set of categories that is found even though the distribution of a group of people over the conceptions may vary depending on the composition of the sample. Besides, as was noted earlier, for ethical reasons requiring the informed consent of respondents, it is nearly impossible to conduct a study with other than volunteers.

A study like this is also limited by the researcher's preconceived ideas of the phenomenon when conducting the interviews and analyzing the data. However, researchers' biases enter into any kind of research, either in the assumptions underlying the study, or in decisions regarding the type of data collection or data analysis techniques (F. Marton, personal communication, July 7, 1989). Such researcher bias can be lessened only by making it clear in the research report, and by submitting a sample of the analysis to an independent judge. It may be argued that any number of interpretations could be imposed upon the research data in a phenomenographic study; however, it is important that the researcher approach this task with competency in the field being studied. Säljö (1988) insisted that a "prerequisite for analyzing data is that the researcher is acquainted with the subject matter in question" (p. 41) so as to be able to discern meanings from an informed perspective. The review of literature in this dissertation has been presented as evidence of the researcher's grasp of the instruction of adults. Larsson (1986) argued that "the possibility of arriving at different conceptions of the same data....could also be regarded as an opportunity of seeing new dimensions in a phenomenon" (p. 38).

The results, or conceptions of instruction, were also limited by the research sample and the setting. The sample was necessarily small because of the time-consuming and labor-intensive nature of data collection and analysis (Lindblad, 1984; Marton, 1986). Although the variation in conceptions arose out of a particular context, it is possible that instructors in other contexts may hold some of the same conceptions so that a similar study in different contexts could add to the outcome space of conceptions discovered here. In this way, the study being proposed "may be viewed as a contribution to knowledge that is destined to be incomplete" (Larsson, 1986, p. 42).

Probably the major limitation of phenomenography is that there are no clear rules for the design and implementation of such a study (Marton, 1986). It could be argued as

inevitable that when people's interpretations of reality are assumed to be contextual, the research methodology "has to be adapted to the context in which it is being employed and the particular types of problems that are being pursued" (Säljö, 1988, p. 47). The only way this limitation can be mitigated is by examining other similar studies, consulting with others who have used this research approach, and conducting a pilot study. Phenomenographic studies were included in the literature review of this dissertation, and others were consulted for the design of the study. The research advisory committee included two members who have done phenomenographic studies. After a pilot study of four interviews was completed in the summer of 1990, it was determined that a conceptual framework was needed to guide the study and that the interview schedule needed revision. Three more pilot interviews were completed in January, 1991, resulting in a further revision of the interview schedule. An additional pilot interview was done to test the final interview schedule before the sample was recruited from ASTD. Some analysis of the pilot data was attempted, but it was determined that until the interview process was sufficiently refined, the resulting data could not be adequately analyzed. So, although research design limitations remain, steps were taken to lessen their effect.

Summary

This chapter began with the rationale for choosing phenomenography as the research approach for studying instructors' conceptions of instruction. Because the purpose of phenomenography is to describe the variation in the way people relate to and experience phenomena, it was judged to provide an appropriate vehicle for identifying different ways of thinking about and understanding instruction. It was assumed that individuals' interpretation of a situation is related to its context, and that their actions within that situation are related to

the way they make sense of it. Because of this assumed variation in instructors'

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understandings of instruction, it is important to discover what their conceptions of instruction are.

Conceptions are people's understandings of their experiences, and in a phenomenographic research study, are the researcher's construction of those understandings derived from the research data. Together, these qualitatively different conceptions constitute the outcome space and are the primary research results. Generally, although not always, further analysis may also be carried out to describe the nature of the relationship between the various conceptions within the outcome space.

As with other types of interpretive research, there are few agreed upon procedures or rules for the design and implementation of a phenomenographic study. Instead, the researcher must rely on examples and guidelines provided by other phenomenographers. The process for selecting a sample of twenty-two respondents from ASTD who instruct, train, or teach in a workplace setting was described. Data regarding the respondents' understanding of instruction were gathered by means of semi-structured interviews which were tape recorded. The interviews were centered on an actual course taught by the respondents because the context of instruction is assumed to be a factor in the way instructors construe instruction.

The interviews were transcribed verbatim, and relevant quotes were analyzed for meaning within each interview as well as in relation to quotes abstracted from all the interviews. Based on this analysis, qualitatively different conceptions of meaning were formulated and analyzed for their referential and structural aspects, thus forming an outcome space.

In this type of research, reliability is demonstrated by a process of co-judging the match of data with the researcher's categories. Sufficient information about the design and implementation of the study was provided so that other researchers could undertake a similar

study. In the sense that reality is always an experienced reality, the instructors' conceptions of instruction validly represent the reality of instruction for them. The validity of the outcome space can be judged by examining the internal logic of the conceptions. Although the generalization of findings to other settings is not the purpose of phenomenographic research, the set of findings in the outcome space, can be used in other studies to discover the source of variation in conceptions and to compare different groups of persons as to the situations in which certain conceptions are held.

This research was restricted by the use of volunteers as respondents, by researcher bias, by the small number of respondents, and by the lack of precise rules for the direction of phenomenographic research. However, precautions were taken to mitigate these limitations as much as possible.

Just as phenomenography is a context-dependent methodology of research because individuals' interpretations of the world are not stable, neither is teaching "an algorithmic process" (Marton & Svensson, 1979, p. 483). It consists rather of "human acts conducted by people who have certain ideas about reality and who are situated in certain realities" (p. 483). Instructors' choices of actions "must be based on profound knowledge of and familiarity with the specific circumstances" (p. 483) of their instructional situation. Knowledge of their own relevancy structures and of alternative ways of construing instruction "should raise the level of awareness in the participants and in this way indirectly increase the likelihood of better, more considered and open decisions" (p. 483).

CHAPTER IV

DATA ANALYSIS

In this chapter, a description of the conceptions of instruction that were derived from the interview data will be presented. Through the process described in Chapter Three, three qualitatively different conceptions of instruction were derived from the interview data to comprise the outcome space. These conceptions of instruction are:

1. The Transmission Conception - imparting information to learners who receive and apply it.
2. The Enablement Conception - assisting learners to share and apply ideas and experiences.
3. The Constructive Conception - involving learners in an experiential process of constructing meaning.

In the first place, an overview of the global meaning of each conception will be presented with several typical quotations from interview transcripts. Then each conception will be analyzed for its referential and structural aspects with further substantiating quotations. The chapter will be concluded with a comparison of conceptions based on the structural analysis.

Global Meaning of the Conceptions

In this section, each conception of instruction will be described. It is important to note that the conceptions described here are categories of description derived from the interview data to represent the conceptions these instructors in the workplace had of their instructional experience. The conceptions are abstracted from various transcripts so that individual respondents cannot be characterized as necessarily holding any particular conception of instruction. However, because the conceptions were derived from the respondents' comments, they are not unlike the respondents' interpretations of their experience even though the respondents were also likely to express thoughts and beliefs aligned with more

than one conception. As Beaty et al. (1990) pointed out, even though individuals are quoted to substantiate a particular conception, "the conception is... hardly ever expressed by the subjects in a complete form..." but their comments "generally reflect only fragments of the complete conception" (p. 11) Through the iterative process of constantly going back and forth between individual transcripts and the pool of meanings from all the respondents, conceptions are gradually built of which the individual fragments can be said to be part.

Transmission Conception

In the Transmission Conception, instruction is understood as imparting information. The focus is on the content which appears to be the most important element of instruction. It is perceived as an authoritative body of information that is to be transmitted to the learners. Instructors are seen as content experts who present information in various ways, usually maintaining primary control over the content and lesser control over the processes. Learners receive information and apply it on the job.

Quotations depicting this conception are the following:

And so I feel that you have to be sensitive to their needs. Not to the point where it disrupts what you're trying to teach them, because you have a goal and you're trying to impart information, but I think you have to be sensitive and very aware all the time of the signals that they're sending you of whether they're receiving what you're talking about. You can have the most knowledge in the world, and if you're presenting it in a way that they're not receptive to the way you're presenting it, then you've got a problem and so, that really boils down to the presenting it in different ways... (R3-Carl)

... It's more in teaching or training, it's more didactic - I am the source of information and in facilitation, I am partially the flow-through, I'm the conduit of information.... But in instruction, you really do need to know the subject. And while you can facilitate discussions around it, you have to be prepared in some format to present content. (R12-Lois)

They're not absorbing that last week's information, and that when they get on the job, or back and start to do some of their training, they've lost it, especially that last week. And probably even some things in the beginning, because they get hit with so much information so fast and it can be very - you go from product information to process information to tax law information to, you know and they - I just don't think that it cements, that it sinks in. (R2-Barbara)

In the first two quotations, respondents spoke of presenting or imparting information or knowledge. The importance of the content is evident in the first quotation where Carl talked about adjusting his ways of presenting but not adjusting the content to the needs of the learners. This comment is fairly typical of the way knowledge (which comprised the content) was discussed in this conception. All of these quotations, but particularly the last one, projects the image of an objective and external body of information to be given to the learners.

It is clear from these citations that instructors are the presenters or givers of knowledge, who as information sources, are required to maintain content expertise. The varied instructional processes spoken of by several respondents appear to consist of different ways of presenting information as illustrated in the first quotation, or of practice exercises defined and directed by the instructor.

The receptive nature of learning in this conception is evident in the first quotation where Carl spoke about learners receiving information, and particularly in the last comment where Barbara talked about information sinking in and being absorbed. The last quotation also suggests that learning includes application of what is learned on the job.

Enablement Conception

In the Enablement Conception, instruction is understood as assisting learners to share ideas and experiences. Learners are the primary element of focus and they are regarded as ~~important resources and participants in the instructional situation. It is their ideas and~~ experiences that are shared with each other. Another important element of this conception is

the application of what is learned on the job. Instructors are thought of as process facilitators rather than as teachers, and they appear to lead the learners primarily in discussion activities.

The following quotations illustrate this conception:

Teacher is an expert, a person who lectures and instructs students, a facilitator facilitates the discussion, is not the expert, the participants are really the experts. (R11-Kathleen)

I try and stay out of an authority figure-expert role with every ounce of my being. I constantly say, "Look, I don't know. What do you think?" And I, when I present content that may be new to them, I say, "I got really excited about this information, I was really able to apply it, let me just share it with you." And I do it from a much different perspective than... at a previous teaching experience, pointing to [Bank], where it was very easy for me to step into an authority role and be the source of information. And I think that's maybe the biggest change has really affected how I deal with this group of people, because they're my peers, and some of them are one level above me, so I really strive to give them a lot of chance to work with one another.... But more than that, just really worked to build in a lot more group discussion, because they learn from one another, rather than them getting one-way stuff from the instructors.... (R7-Gail)

It's very interactive, we call them workshops because we expect them to bring their personal situations to the classroom and we work through based upon what they're doing. (R9-Irma)

It's [facilitating] again, it's maybe throwing out an idea and getting them to talk about it, and apply it, make it sense to them.... To me, a pure teaching is more of a lecture. One-hour lecture. All good information, all good information you have to have, but - and you might even ask a few questions, but there isn't any, to me, the teaching part of it, you're not looking for their responses and practical application. So there is some teaching, obviously, in what we're doing, but the key thing is how do I apply it. (R9-Irma)

All of these quotations, as do many others, portray an emphasis on the learners who are viewed as "experts" because of their common sense knowledge of the content derived from their experiences. Classes are designed around their experiences and needs, and their responses are sought as an essential part of the instructional process. The first two

quotations demonstrate that instructors are not perceived as experts or authorities who give

information, but as facilitators who assist in the learning process. The expectation of learner involvement is evident in the quotations where learners were spoken of as being given opportunities to "work with one another" and as being expected to work with their "personal situations," as well as where instructors were described as "look[ing] for their responses." Throughout all the interviews, including these, the instructional activity most frequently cited was discussion, also implying learner participation.

The last quotation, which is typical of the responses describing facilitation, illustrates a second important element of this conception, the application of learning, presumably on the job. The other two conceptions include the notion of the application of learning, but not in the sense here where it appears to be a defining element of facilitating.

The first two quotations depict the aspect of this conception that is different from the other conceptions, and that is the belief that instructors are not experts in the subject comprising the content of instruction, but that the learners or participants are. This is different from the Transmission Conception in which instructors are assumed to be experts, and it is different from the Constructive Conception in which the role of instructor and learners in relation to the content is seen as interchangeable depending on who has expertise relating to particular topics.

Constructive Conception

In the constructive conception, instruction is understood as involving learners in discovering meaning. The emphasis is on learning understood as constructing or construing meaning through learning activities that are meant to give learners as close an experience of the concepts being taught as possible. Unlike the Transmission and Enablement Conceptions in which the instructors' role as respectively, content or process expert is separate from the learners' role, instructors in this conception are seen as partners with the

learners. Instructors are expected to have content and process expertise, but it is not assumed that their proficiency covers all topics. Learners are presumed to have had experiences that at times could be useful as resources for learning, making instructional and learning roles interchangeable between instructor and learners. As partners with the learners, instructors are seen as sharing responsibility for all aspects of the instructional process from goal setting to evaluation.

The following quotations are typical of this conception and give it meaning:

I do a workshop in a couple of weeks with [Company X] Computer Services and this is an example of what I was telling you about earlier about always having to - realizing that you don't have to be the teacher, and I came off this exercise of one-sentence problem situations,...and about eight or ten people who had very strong answers and we talked about those things. We went for three or four hours. It was amazing, and they loved it. They said it was the best part of the workshop. They loved it. They loved hearing what other people had to say and learning from their different approaches to things. It was amazing - it was like, what a simple way - you know - to get the point across, ...We had already talked about the other conceptual stuff,...so this was an example of applying that material. And they were then drawing upon all the stuff we were talking about as well as their own experiences to problem solve. (R17-Robert)

... And the other thing I think is being somewhat strict - my idea about teaching has probably become stricter in that I really, truly believe people have to do things themselves. And spoon feeding in general, spoon feeding knowledge doesn't go very far, so I tend to, for instance, in the team building problem. I worked at the ...School for Citizen Leadership last summer and I'll be doing it again this summer. I go as a loaned - the firm loans me as a loaned executive to that organization and we work with teenagers, but during the staff training portion of that last year, I taught the staff an Outward Bound exercise that takes about two hours, it's a group problem solving and communication exercise and I taught it to staff, because we're going to have a hundred kids and I needed two staff per group of ten kids, or twelve kids or something like that. And I was very interested to see that the staff wanted to - they're all nurturing type people, and I was very interested to see that the staff wanted to help, help, help. Give clues here and there. And I had to really struggle myself to come up with a way to help them understand that that's not the way that their students are going to learn what they need to learn from this exercise. And, so for me, you know, that's been a real challenge to say, well what do I want to get out of it and do I need to - it kind of goes both ways, because I can tend to get too strict, and then somebody says, "Gees, if you'd just told us that, we could have caught on a lot faster, or whatever. You really wasted our time." "Oh, my mistake." But I think in teaching teachers especially, that becomes a real important area is letting the learner learn by experience, discover on

their own, through their own, you know, gut wrenching process of realization, whether it's technical or philosophical, the learner has to grasp it. (R6-Faith)

The biggest hurdle I had to overcome was that in a formal academic environment, the teacher is the expert and the students are there to pick up what they could from the instructor. In adult learning, I've come to know that we all are experts in some things and we're all learners in others. And that I do not have to be responsible for being the fountain of wisdom for all things. (R4-Donna)

In the first quotation, Robert provided an example that epitomizes many of the beliefs associated with this conception. In the first place, it is an illustration of an experiential problem solving process in which the learners constructed meaning from the learning activities just completed and their own experiences. Robert assumed a role of partner with the learners by sharing instructional responsibilities with the learners who acted as resources for each other. He saw this as the application of what had been learned to their real life experiences, which was also an important element of this conception.

The second statement depicts the strong belief that it is through experiential activities that meaning is discovered and understanding achieved. Faith had previously given an example of learning the concept of teamwork and leadership through a joint team building project. In the third quotation, Donna described the interchangeability of instructional and learning roles in which responsibility for providing knowledge resources is shared with the learners.

In this conception, the context is viewed as an important element of instruction affecting the instructor's ability to instruct, whereas in the other conceptions it seems to be taken for granted. The following quotation from Eileen provides an example of the way the context was seen as affecting instruction. Eileen was an external consultant who instructed in varied workplace settings and one challenge for her was having enough time in which to meet instructional goals:

Well, certainly, there are the reality constraints, how much time, you know, I mean - this was pretty good - I got to design this course with the city and two days felt pretty good. I mean, I'd kind of like to have more time, but I know realistically not too many people can afford to take it off, let alone the cost, but just the time - so with the city, I felt real good, that I could have a lot of impact. But other places, you know I have some trainings coming up and they want three different topics in three hours. And it's like, well, gosh, you know, it's going to be really hard and I keep trying to work with them to get more focused, and they just like well, "we may never get these people in here again. This may be our only chance. We just want to get it off to them." It's like, wait a second, you know, what's really going to work here. So that can be very frustrating. And then you're real torn - "do I throw away all the experiences?" - because they take time and just throw a bunch of stuff at them, and I know that's not really going to do anything, so why do that? So it's really hard in those situations.... I mean I accept that the real world is far less than ideal. And that, you know, ok, at least they're getting that, so how can we make it work the most. I will not say, "well, I won't do it." Because I think, well, hey, at least they're going to get something and I'm sure I can do as good a job as anyone with that little bit, and yet it's not as good as a three day but.... (R5-Eileen)

Eileen explained that she tried to negotiate ideal instructional conditions with organizations; however, at times she had to make compromises and adjust to the situation. Other respondents cited factors that pointed to the organizational culture as a source of positive or negative impact on instruction.

This is also the only conception in which goals were espoused that reached beyond the workplace setting as Eileen expressed:

My basic goal - my overall goal is to change the world definitely, bring peace on earth. Yeah, I'm real clear on that. Yeah, that is my goal, ultimately. (Laugh). Yeah, I mean literally, I am a peace-maker, yes. ... And how am I progressing? Well, yeah, a lot of it is, it's opening up blinders, helping people be more accepting of themselves and of each other, to feel more alive and excited and empowered, and therefore to be all they can be, and I believe that, that it is human nature - my view of human nature is very optimistic.... (R5-Eileen)

She usually taught personal growth courses and saw them as ways of helping people achieve a positive self-image that could give them the confidence to try to effect societal change. Another respondent viewed the subject matter that she taught, health education regarding drugs, alcohol and AIDS, as directed toward the betterment of society.

The characteristics of each conception are summarized and compared in Figure 4.

It can be seen from this figure that each conception has a different global meaning and at the same time that various elements of instruction are conceived differently. Not all elements are equally important in each conception. For example, in the Transmission Conception, the content is emphasized; in the Enablement Conception, learners are emphasized; and in the Constructive Conception, learning is stressed. However, each element could be defined to some degree from the data. The different ways in which instruction in the workplace is understood will become clearer in the next section where the structure of each conception will be analyzed, and in the final section where the conceptions will be more thoroughly compared.

	Imparting information	Facilitating sharing	Sharing responsibility for instruction
	Content: Pre-defined body of knowledge	Learners as participants & experts	Learning as constructing meaning
Transmission Conception	Instructor as expert	Enablement Conception	Constructive Conception
	Learning as receiving and applying	Learning as applying	Experiential processes
	Learners as receivers	Instructor as process facilitator	Instructor & learners as partners
		Discussion activities	Context as source of impact
			Directed beyond the workplace

Figure 4. Characteristics of Conceptions of Instruction

Structural Analysis of the Conceptions

The other part of data analysis is the examination of component parts of the conceptions to discover their referential and structural aspects. The referential aspect is the global meaning of the phenomenon being studied and was briefly described for each conception of instruction in the preceding section. The structural aspect is defined in terms

of two components, an external and an internal horizon. The external horizon shows how the phenomenon is delimited by the context. In other words, the units of meaning were examined to determine whether the respondents were limiting what they said about instruction to the context of the workplace or whether they would apply their understanding of instruction to other settings or situations, for example, teaching university or teaching scuba diving. Even within the workplace, certain components of a conception could be limited to certain situations such as the specific course being described or the job situation to which learners returned after training. However, some components were not limited by the context of the workplace at all, but could refer to life in general so that as Beaty et al. (1990) stated, "as far as the external horizon is concerned the only delimitation made is a delimitation of the person's life world" (p. 10). The internal horizon demonstrates how the elements of the phenomenon (instruction) are perceived and related to each other. A diagram of a complete conception of instruction is presented in Figure 5.

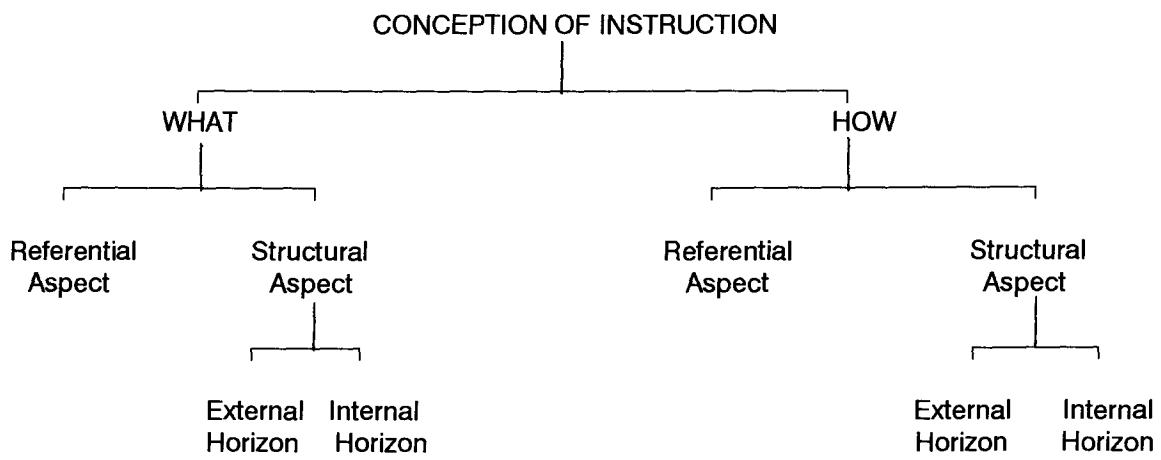


Figure 5. Diagram of a conception of instruction.

Because the external horizon is not a component about which the respondents can be directly questioned, it usually was surmised by the researcher. Unless there was evidence to

the contrary, it has been assumed that the external horizon for most components of the conceptions is the workplace setting because that is the focus of the study. For example, one of the components of the Transmission Conception is "presenting information." Whether respondents thought of instruction as presenting information in other settings besides the workplace is impossible to know definitively; therefore, it was usually assumed that this component of instruction is limited to the workplace. In some conceptions, one or two individuals expressed views indicating a belief that their thinking about instruction is applicable in a different setting from the workplace. In those cases, the other settings are included as part of the external horizon to illustrate the broadest possible limitation of that conception. However, by examining all the units of meaning, it was usually possible to pinpoint the external horizon of the majority of respondents for whom a particular conception was their predominant way of viewing instruction.

In examining the conceptions of instruction, it was found that some units of meaning are not only about instruction but also about learning, whether or not the respondents identified their comments as being about learning. Therefore, in the structural analysis that follows, it will be seen that some components of instruction describe learning rather than instruction and have been labeled as such. However, because all constituent elements of learning were not explored in the interviews, it cannot be assumed that these are conceptions of learning, but rather the respondents' thinking about some aspects of learning.

In the next section, the description of each conception will begin with a table that summarizes the structural analysis in terms of the conception's referential and structural aspects, and of the WHAT and various HOW components that were found to comprise the conception. Under the structural aspect of the conception, the external and internal horizons will also be outlined.

Transmission ConceptionTransmission Conception: WHAT Component

In Table 3, the referential aspect of instruction in this conception is shown as imparting information to learners who receive and apply it. It was evident in such comments as:

Well. To me, it's [teaching] imparting information or concepts. (R13-Margo)

Interviewer: When you're in the role of expert, what is your responsibility, then?

Respondent: To as clearly, concisely, as I possibly can, give them, share information with them. (R21-Wilma)

When it comes time for me to train a particular group of people, I become solely focused on that knowledge of that particular training aspect, so I can impart that knowledge. (R20-Vera)

For the WHAT component of the conception, the external horizon is primarily the workplace setting because with one exception, there was little indication that respondents thought of instruction in this way for other contexts. One respondent indicated that her view of instruction changed in different situations: she saw it as imparting information when she taught a university class, and as facilitating discussions in the workplace. Therefore the university setting is included as a secondary external horizon. It was more difficult to identify the external horizon for this conception because the decision was based on the absence of evidence rather than its presence. In a few instances, certain respondents spoke of viewing instruction differently depending on the situation or the content. However, with the exception just mentioned, there was no evidence that instruction was understood as imparting information in any other setting than the workplace. For these reasons, the external horizon for most of the components of the Transmission Conception is the same - the workplace setting. It will be seen in the last component that describes learning, that the external horizon becomes more specific.

Table 3

Structural analysis of the Transmission Conception

Referential aspect		Structural aspect	
		External Horizon	Internal Horizon
WHAT Component	Imparting information to learners who receive and apply it	Workplace & University	<ul style="list-style-type: none"> ●Focus on content ●Instructor as expert/authority ●Learners needing knowledge ●Movement of knowledge from instructor to learners
HOW ₁ Component	Presenting information	Workplace & University	<ul style="list-style-type: none"> ●Instructor as presenter ●Act of presenting ●Information as object acted upon ●Learners as recipients of information
HOW ₂ Component	Persuading learners	Workplace	<ul style="list-style-type: none"> ●Instructor as marketeer ●Act of persuasion ●Information as object acted upon ●Learners as customers
HOW ₃ Component	Demonstrating skills	Workplace	<ul style="list-style-type: none"> ●Instructor as model ●Act of showing how ●Skills as object acted upon ●Learners as recipients of skills
(Learning) HOW ₄ Component	Absorbing information	Workplace	<ul style="list-style-type: none"> ●Learners ●Act of receiving ●Object acted upon (content)
HOW ₅ Component	Repetition of information or skills	Workplace	<ul style="list-style-type: none"> ●Learners ●Repeated acts of learning ●Act of "getting it"
HOW ₆ Component	Relating new information to existing knowledge	Workplace	<ul style="list-style-type: none"> ●Learners ●Information ("stuff") ●Acts of relating & retrieving
HOW ₇ Component	Applying new information/skills on the job	Job situation in workplace	<ul style="list-style-type: none"> ●Learners ●Situation ●Act of using information/skills

Internal horizon: Focus on content. The way that the elements of instruction are understood and related to each other comprise the internal horizon of instruction. In the Transmission Conception, the focus is on the content which the instructor wants to impart. This was evident in the above quote from Vera as well as in the following one from Barbara:

Well, I think that my responsibility in teaching is to not - one of the biggest things is to not become the issue, that the material is the issue rather than the person... And that the information should be the key part, and ensuring that I have a style that is not overbearing, that doesn't offend anyone, so that the responsibility of the teacher is to insure that material gets out there and that becomes the most important issue, not the - not housekeeping kind of things, are they late for class or - those kind of things. (R2-Barbara)

Both Vera and Barbara believed it was important to focus on the content that was to be presented rather than on the personality of the instructor.

Internal Horizon: Instructors. Instructors, by virtue of their role and their expert knowledge of the subject matter, possess the authority to deliver the preferred way of thinking about the content to the learners. Here are examples of how instructors are viewed in this conception:

So these people - I kind of have a profile on them, I know what they're going to be like. They're going to be a lot more submissive, in that they're used to professors and the professor is kind of like a god and whatever the professor tells them, they accept that.... Those people are - if you'll pardon the expression - easier to manipulate, because they accept the authority of a person teaching. (R3-Carl).

... It's more in teaching or training, it's more didactic - I am the source of information and in facilitation, I am partially the flow-through, I'm the conduit of information.... But in instruction, you really do need to know the subject. And while you can facilitate discussions around it, you have to be prepared in some format to present content. (R12-Lois)

In the first quotation, even though Carl was describing some of the employees in his course, in doing so he revealed his view of the instructor as the authority. In the second quotation, Lois contrasted two roles, that of instructor and of facilitator. She viewed instructors as

subject matter experts and information sources whose role was primarily understood as conveyor of information.

Because of their role as expert and information source, instructors are responsible to know the content, as was evident in the preceding comment from Lois and in the following from Vera:

So I just focused on learning material - to be as well-versed in the subject and knowledge of it as possible, and let the other fears fly away. (R20-Vera)

Yeah, to be the best that I can be at all times. To know the subject, to always be prepared as best as possible going into a training session. People can see right through you if you're not, you know. Don't try to pull the wool over somebody's eyes, be genuine, be enthusiastic, you know, if you can, be enthusiastic. (R20-Vera)

Besides being responsible for subject matter knowledge, Wilma also saw instructors as responsible for assuring that learners meet goals prescribed by the organization, particularly when accuracy was essential to the job:

...In that role [expert], it does become somewhat my responsibility to try to make sure they get it. I mean I can't just simply say, "OK. I'm going to share this with you and, hey" - true, it is their responsibility, but I feel in that role I have more of a responsibility for how they then perform after I've shared. I'm trying to change their performance, either to have them improve or learn something and to do it consistently. And in the bank, 99.9% error is not good enough, I mean you've got to be 100% error-free, so. (R21-Wilma)

Knowing the subject matter is an important responsibility for instructors, as is assuring that learners acquire the information the organization wants them to learn.

Instructors exercise control over the content but can be somewhat flexible in regard to processes which was apparent in Barbara's explanation of how she adapted the material:

Interviewer: In using training that's already prepared, do you pretty much follow whatever the outline is, or do you adapt it to...

Respondent: I did originally, because I was just so unsure, so I pretty much followed the outline and now, with that specific - that products training, [Diane] and I talk about how we could practically train in our sleep, because we've done it so many times, but

we adapt it to the group, or adapt some activities that we'll do and we have games we play and things like that, so those are the things we do.

Interviewer: Can you give me an example of how you adapt to the group - like how would you decide to do one thing with one group and not to do that with another group?...

Respondent: ...there are certain groups that like being with each other and they follow each other through this whole three week course, and they love to play games and "What are we doing with our game today?" Other people are very individual and they might not want to, so as far as the material goes, it's probably the same, but it's the extra things that you would make decisions on. (R2-Barbara)

She spoke of adapting processes, "the extra things" but not the content. This quotation further supports the argument that content was the element of focus in this conception.

In the Transmission Conception, instructors are expert sources of knowledge and information responsible to maintain subject matter knowledge and to assure that learners meet goals prescribed by the organization. They control the content but are somewhat more flexible in regard to instructional processes.

Internal horizon: Learners. Learners were portrayed as receivers needing the knowledge that could be given to them by the instructors. This is evident in comments like the following:

Always the audience is important. And I have two different types of audiences - one audience is middle level managers within our operational area.... The other type of audience that I teach are brand new, fresh out of college kids, most of them. And I say kids, because they're 22-24 years old. To me that's a kid.... (R3-Carl)

...uh, most of them are computer experts - electrical engineers and computer engineering - and they really haven't had much background on making presentations.... (R1-Arnold)

I came in as an expert in effective presentations. None of them are. They are all experts in using computers. (R1-Arnold)

Receiving was implied when respondents, such as Carl in the first quotation referred to the learners as his "audience." In the other two quotations, Arnold described learners as non-experts in the skills he was teaching, which was in contrast to his role of expert, thus implying that they needed these skills.

When learners were spoken of as needing knowledge, "need" had a meaning in addition to the more common understanding of a gap between current knowledge or skill and desired knowledge or skill; need was also perceived as the learners' receptiveness to the instructor's teaching. This was evident when Carl explained how he dealt with learners' needs:

And so I feel that you have to be sensitive to their needs. Not to the point where it disrupts what you're trying to teach them, because you have a goal and you're trying to impart information, but I think you have to be sensitive and very aware all the time of the signals that they're sending you of whether they're receiving what you're talking about. You can have the most knowledge in the world, and if you're presenting it in a way that they're not receptive to the way you're presenting it, then you've got a problem and so, that really boils down to the presenting it in different ways... (R3-Carl)

"Need" understood in this way as receptiveness to the information the instructor is trying to impart suggests an underlying assumption that instructors know what content the learners need so that it is not necessary to consult learners regarding knowledge needs they may have. Thus in this conception, learners are seen as an "audience" needing to receive information that the instructors have to give them.

The last part of the internal horizon of the WHAT component of this conception is the movement of knowledge from instructor to learners. This movement is explained by the first three HOW components of the conception which refer to how acts of instruction were thought to take place. It will be seen that the last four HOW components are more clearly about learning.

Instruction Components

HOW, component: Presenting information. The first understanding of how information is given to the learners is by presentation and is apparent in comments such as the following:

But in instruction, you really do need to know the subject. And while you can facilitate discussions around it, you have to be prepared in some format to present content. (R12-Lois)

"As they are making their presentations, the primary purpose is, they're teaching" (R1-Arnold).

You can have the most knowledge in the world, and if you're presenting it in a way that they're not receptive to the way you're presenting it, then you've got a problem and so, that really boils down to the presenting it in different ways,.... (R3-Carl)

In the first and third citations, Lois and Carl spoke of presenting content. In the second quote, Arnold equated the giving of presentations, a skill which he was teaching, with instruction.

Other evidence that instruction was perceived as presenting can be found in respondents' descriptions of instructional processes. Although a variety of processes were mentioned including interactive ones, didactic processes were associated more often with this conception than with the others. The respondents were not asked to define "didactic," however it appeared to be understood as "giving information" or "lecturing." This way of thinking about instructional processes was evident in the following comments:

Unfortunately, it is just - because we generally have like 50 or 60 people in the courses, so it's truly didactic. When we teach that EKG portion, that 16 hours, where people actually learn how to read heart monitors and rhythm strips, there's practice sessions. When I teach that portion I give them work time, and then I kind of walk up and down the aisles and talk to people and see how they're doing and if they're measuring things in the right spot, but when you teach the rest of it, it's purely didactic. We do one case study, that's about 15 minutes long with the group, chiming in enmass - it sounds really horrible. (R13-Margo)

...It's more in teaching or training, it's more didactic - I am the source of information and in facilitation, I am partially the flow-through, I'm the conduit of information.... So I've taught at the university for several years, and continue teaching in the [university's] Training Certificate Program - I'm much more the fountain of information in many of those environments. (R12-Lois)

In the first quotation, Margo, an instructor of critical care nurses, contrasted didactic processes with practice sessions; and in the second quotation, Lois labeled instructional processes as didactic when she was acting as the source of information. These references to didactic processes imply that they consist of the presentation of information, thus illustrating the referential aspect of this HOW component.

For this way of viewing instruction, the external horizon is primarily the workplace setting and secondarily the university setting because respondents did not relate this meaning to other contexts. (It may be recalled that one respondent [R12 - Lois] viewed instruction differently depending on the situation, and presenting information was the way she thought of instruction for the university setting.) The internal horizon of this component can be deduced from the above quotations: the instructor is a presenter or information source; the process is the act of presenting or giving information; the content is the object that is acted upon or presented, and learners are the recipients of that object or content.

HOW₂ component: Persuading learners. A second way in which instruction takes place in the Transmission Conception is by persuasion or selling. This was evident in only one interview, but it seemed important as a variation on the HOW₁ component because it gives further support to the assumption that instructors know what information learners need, making it necessary for instructors to persuade learners of what they need, as Carl stated:

Training is a marketing - you're a marketeer when you're out here training. You're trying to get somebody to accept something for what it's worth. Sometimes they're there because they want to be, sometimes they're not there because they want to be, but you still are trying to market a particular product. In my case, it's bank management. (R3-Carl)

This component of the Transmission Conception appears to be limited to the context of the workplace which has been designated as the external horizon. For the internal horizon, the instructor is viewed as a salesperson or "marketeer" and the process is the act of persuading. The learners are customers or buyers of a product as can be seen by Carl's later comment:

I think probably being sensitive to the audience's needs, because I look at an audience that you're talking to as a customer. That's your client or your customer. Everybody has a customer, everybody. No matter - unless you're a hermit and never see anybody else, you've got a customer, whatever way you want to look at it. I'm your customer, right now. (R3-Carl).

These two components of instruction are different only in the way the elements of instruction are described. In the first, the instructor is a presenter, in the second, a salesperson; in the first instructing is an act of presenting, whereas in the second it is an act of persuasion; in both, learners are recipients of information, but in the second they are seen as customers. Presenting implies a freedom on the part of the receivers to accept or not accept that which is given. However, persuasion implies pressure on the part of sellers to convince customers (learners) that they need something that they may not think they need, thus restricting their freedom.

HOW₃ component: Demonstrating skills. Some respondents described themselves as demonstrating certain skills or processes to be learned as is evident in the following examples:

I provide them with a lot of information about how a bank is managed, then I give them a setting and I show them a process - both a mental process and a physical process of how they go about determining and making a bunch of decisions. (R3-Carl)

...At the same time, I'm demonstrating this. I'm telling them, "OK, now, you'll notice I just made this remark - I made a few because you're a supporter. How does that make you feel?" "Oh, I feel good." So I'm demonstrating because I want them to - I have to be the model for them, so I'm modeling behavior and then when they make their presentations, they will keep that in mind, too. (R1-Arnold)

In the first quotation, Carl told how he demonstrated the process of managing a bank, and in the second quotation, Arnold explained that he demonstrated effective presenting through his teaching. This way of instructing is consistent with the first HOW because instructors still are experts who deliver knowledge by showing the learners how to exercise a skill. The external horizon of this component is the workplace setting because there is no indication that these respondents applied this meaning to other settings. The internal horizon is comprised of the instructor as demonstrator, the act of showing or demonstrating, content as the specific skill or process that is being demonstrated, and learners as recipients of the skills.

Learning Components

HOW₄ component: Absorbing information. The remaining HOWS of the Transmission Conception refer to the way respondents viewed learning. For the most part in this conception, learning was not thematized; in other words, it was not discussed and defined unless the interviewer initiated the topic, but rather appeared to be taken for granted. However when the respondents were asked for their understanding of learning, there were four ways of looking at it. The referential aspect of the fourth HOW of this conception is that learning takes place by receiving or absorbing information. It was expressed in the following ways:

...Learning is the process of what the person that's being trained receives. (R3-Carl)

They're not absorbing that last week's information, and that when they get on the job, or back and start to do some of their training, they've lost it, especially that last week. And probably even some things in the beginning, because they get hit with so much information so fast and it can be very - you go from product information to process information to tax law information to, you know and they - I just don't think that it cements, that it sinks in. (R2-Barbara)

The language in the last quotation assumes that learning is a process of receiving - the "absorbing" and "sinking in" of information.

The external horizon for the next three ways of learning is the workplace setting, again because there is little or no indication that the respondents thought of learning in any broader terms than they did instruction. The internal horizon consists of the learner, the act of receiving, and the content which is received.

HOW₅ component: Repetition. The fourth HOW of the Transmission Conception is that learning takes place by the repetition of information or skills so that content can be learned and retained and was suggested by the following quotations:

There's another thing about learning, you know the learning or the forgetting curve, that that can be kept up if you use review. So every time you take a break - when they come back - "What was it we were talking about?" or "Let's go back over this again. Now that you've had a chance to think about it, what's your understanding now?" And so, each time that you - you've probably read Tony Buzan shows that that kind of curve which is kept up. You know, it comes up like this, but it drops very, very rapidly. Well you can hold that line up if you review in between. And I don't know how many reviews - it probably needs to have some research as to how many reviews people need? (R1-Arnold)

I think they needed persuasive, those kind of skills. So I was hoping that rather than throw them into the wolves and let them learn the hard way, that a three day seminar and with role plays and practice sessions, that they might learn a little bit faster and be a little more comfortable when they got on the phone than they would have been had I not presented that seminar. (R19-Teresa)

Well, some of it [evaluation] is by observation, skill practice, consistency because they repetitively do a lot of the same things over and over again, and it's very important that they get that repetition and that they get it right, because they're dealing with finances, and a mistake, depending on its seriousness, can cost them their job. (R21-Wilma)

In the first quotation, Arnold related review and practice to retaining information in his reference to the "learning curve." In the second quotation, Teresa associated the practice of skills with a more rapid learning outcome. And when Wilma was asked how she evaluated learning preceding the third quotation, she pointed out that the practice of job-based skills was important for learning correct procedures which themselves had to be done repeatedly.

The external horizon for this way of learning is the workplace because the respondents' thinking about learning appears to be limited to that context. The internal horizon consists of the learner, repeated acts of learning, and the act of retaining information and skills.

HOW₆ component: Relating information. The sixth HOW of the Transmission Conception is that learning occurs when new information is related to previously learned knowledge and integrated with it so it can be retrieved. That was evident in such quotations as the following:

It's [learning] the integrating, the integrating of that information to where they can use it. (R13-Margo)

I like to, I think the thing that I do in seminars that I don't see other trainers do is I try real hard to make it real life, to find examples that have happened that they remember and then apply whatever it is we're learning to what they remember. I think if you don't - I think of it as a plug, you know there's this plug in your head and somebody's going to plug a plug into it and if there's nothing there to plug it in, if there's no socket, then you can't plug in the plug. So I try to find the sockets to plug into. And I've been in seminars where people just - it's wonderful material and you sit there and say, "Yeah, yeah, yeah," and then you go back to your office - like, "Yeah, but." You know, the phone's ringing and everybody needs me and how do I apply what they just taught me. And it's out the window, you don't remember it till the next day. (R19-Teresa)

Some of learning is drudgery - for me anyway and it's not just what I learned in elementary school. It's just stuff I do not care to know, but I will - it's kind of like the card catalog - I'll consolidate the information - put it someplace and hopefully I'll be able to dredge it up at the time it's required. (R12-Lois)

In the second quotation, although Teresa was talking about what she did as an instructor, her understanding of learning was revealed when she spoke about plugging new material into sockets. ~~She wanted to frame information in such a way that the learners could relate it to experiences or knowledge they already had (their "sockets"). There is an assumption here of~~

some sort of mental structure of knowledge with which new information is to be integrated so that it can be retrieved for future use. In the third quotation, Lois's analogy of a card catalog implies a mental filing system into which information can be integrated for retrieval.

The external horizon of this component is difficult to determine because it could easily be assumed that new information can be related to any life experience, which could be one interpretation of the third quotation (Lois). However, the first two quotations (Margo and Teresa) more clearly presented this component in the context of the workplace. And because few respondents in this conception referred to other contexts, the workplace has been designated as the external horizon of this component. The internal horizon is the learner, information ("stuff"), and the acts of relating information to previously learned knowledge and of retrieving information when needed. The quotations used to substantiate the HOW components referring to learning demonstrate that learning was not thematized in this conception. It was explicitly described by the respondents only when they were asked how they understood it. In the other quotations, some aspect of instruction was being discussed that the researcher discerned as alluding to learning.

HOW₇ component: Applying information. The last HOW of the conception, is the application or use of new knowledge and is evident in many of the preceding quotations. The external horizon can be more specifically designated the job situation in the workplace because respondents identified that as the context for application (e.g., "when they get on the job" [Barbara, p. 112]; "when they get on the phone" [Teresa, p. 113, 114]; "then you go back to your office" [Teresa, p. 113, 114]). The internal horizon consists of the learners, the situation, and the act of using the information. This HOW component is common to all three conceptions of instruction.

Taken separately, each of these HOWS presents a partial view of learning, however, if the components are combined, a more complete picture results of how some of the processes of learning are understood in this conception. The learner receives information from the instructor, the new information is related to previously learned knowledge and integrated with it, then reviewed and practiced so it can be retrieved and applied when needed in the job situation.

Other Indicators of the Transmission Conception

There are other indicators of the Transmission Conception, which are important for a complete understanding of it. These indicators are related to elements of instruction that were not covered in the structural analysis just completed. It may be recalled that two elements depicted in the conceptual framework on p. ? were "content" and "context." A sub-element of content that emerged as important in the data was knowledge and is the first indicator addressed here. Following that, the way the context was understood in the Transmission Conception is also discussed.

Knowledge. In the Transmission Conception, knowledge is viewed as a body of pre-defined information obtained from authoritative, external sources, to be imparted or passed on to the learners. The nature of knowledge was not explicitly explored in the interviews, but was suggested by many of the respondents' comments about content and about instructing. The first hint of their thinking about knowledge came early in the interviews when they were asked how they began thinking about the course they were describing. Barbara's response was typical in that her immediate focus was on content:

And what I started thinking about were my information suppliers - who did I need to get information from - and maybe concurrently with that, was how was this going to flow - what would be a logical flow for all of this information. (R2-Barbara)

When asked for an explanation of information suppliers, she replied:

People like - well I need to get information from actuarial and they would give me product specification, and then marketing would give me marketing materials and how they were anticipating marketing the product in the field and then from the administrative people, I would need process issues - how did they want this to be processed, so I could do training on those processes. (R2-Barbara)

Barbara's first need was for information about the product that would form the content of her instructional program. Many quotations from the preceding structural analysis of the conception also imply an understanding of knowledge as a body of pre-defined information. For example, the emphasis on content, the perception of instruction as the presentation of information by expert instructors to non-expert learners, the references to learning as the absorption and "sinking in" of information.

Knowledge, in the form of content, appears to exist outside the learners and to a certain extent, even the instructor, who seems to believe as Barbara did that authoritative information for instruction is located in such sources as literature, vendor packages, or various members of the organization.

Authority as vested in external sources is evident in the following comments:

Interviewer: Like you say, you use vendor - you use a vendor's package, do you follow that pretty closely, or do you adapt it at all?

Respondent: It depends. Like on the [Consulting Firm] side, where they did that, they worked together with [our company].... And we have the opportunity to modify it more towards our use here if we desire. They come out and review how we teach it the first time. The first time I did it, they came out and said, "Yes, you're blessed, you can teach this course." Or it's "no you can't,"... (R18-Sally)

Well, since I've taught speech before, I had a lot of things, but I started looking particularly at business - there was a book - um, now I can't think of the name of it - but at any rate it was written by a couple of women from San Francisco just on business speaking - you know, making presentations, making presentations to boards. And so I read through that and picked out a lot of things from that. I looked in the Toastmasters book - I'm very much into Toastmasters - and Toastmasters had a super, super program on speaking. And then a lot of things that I've picked up on the way, myself, in making presentations. (R1-Arnold)

Well, um, I thought - I taught it a lot before, so what I thought about most was what I needed to know as a new nurse. What kind of things would have been helpful for me and then went back and picked out some good textbooks and then did a literature review, and then went way over board, and it got too complex, and then whacked it down to where it's more basic. (R13-Margo)

In the first quotation, Sally explained that an external consulting firm worked with her company to design the management training program. Although instructors were permitted to alter it for their needs, the consulting firm, as authorized by the organization, approved the final implementation of it. In the second quotation, Arnold suggested that in addition to external sources, expert instructors could also be considered sources of legitimate knowledge. This is further substantiated in the third quotation where Margo saw her own beginning nursing experiences as the starting point for a search for information.

These quotations imply that the information to be presented to the learners was sanctioned by some authority. The literature, vendor package, organization, or instructor were recognized as containing or possessing valid knowledge as suggested by the instructor's use of the resources and the organization's approval or acceptance of the instructor. Thus knowledge consists of information that originates outside the knower, and is assumed to be "right" when possessed by a source recognized as authoritative by the learners.

Context. The context is important because in phenomenographic research, it is assumed to frame thinking about other elements of instruction. It is defined here as the setting within which instruction and learning takes place and includes such sub-elements as organizational structure, goals, resources, policies, and culture. Structure, goals, resources and policies are often officially recorded sub-elements of the context, which in this study were not investigated. Closely related to these sub-elements is the organizational culture which

has been described as "the pattern of values, beliefs, and expectations shared by organization members" (Huse & Cummings, 1985, p. 35). These taken-for-granted and subjective assumptions about relationships and work were of more interest in this study which investigated people's assumptions and thinking.

The discussion that follows includes the perceptions of respondents for whom the Transmission Conception was their predominant understanding of instruction. Workplace settings represented by these respondents were financial institutions (bank and insurance), a hospital, a retail clothing store, a cellular phone service company, a public transportation company, a computer software manufacturing company, and an electrical utility company. In other words, respondents working in these settings were cited throughout the description of the Transmission Conception leading to the conclusion that this was the primary way in which they understood instruction.

The structure of the organizations could only be surmised from the interviews because none of the respondents described it in detail. However, it can probably be assumed that the structure for the most part, was hierarchical, first of all, because that is how most business organizations are structured, and secondly because of indications in some of the respondents' comments. For example, Carl's inability to reach upper management to present a case for the need for further training suggests both the type of structure and the culture that existed in his organization:

Interviewer: What would you say your biggest challenge is in training?

Respondent: Upper management. And convincing them of a greater need for training, not a lesser need. We're in a mode, as a corporation right now - we had the most successful year we've ever had in 1990 in terms of profits, and yet they have tightened down even more than they ever have in the past on expenses, and that includes things like training. To me that is very short range thinking, and I tend to - I study economics, banking - the industry itself, and I feel that I'm probably as knowledgeable as most high level people in this bank in terms of what's going on in the whole world, today. And I look at our management sometimes as being a little bit too short sighted. And I tell them so at every opportunity I get. One of these days, somebody's going to club me right between the eyes, but I feel very strongly that it's short-sighted. I do understand

that it's the share-holders, the people that own the stock that create this problem. They say, " I want good results. If you don't give me good results, I'll go sell your stock and buy somebody else's," so it's a catch-22. And I think that the key thing is to keep working on management to try and provide more training. The "Train America's Workforce" - unfortunately I don't have as - I'm not high enough up to get to the very top guy. I work at my own - about two levels up or so - I work at those people, but I just don't have enough clout to - I keep on at it - I don't have enough clout to really influence it that much. And I feel that management - convincing management and getting management's support for training is probably one of the biggest things. But I don't make a crusade out of it. I don't spend all my waking moments trying to figure out ways to do it. (R3-Carl)

There was little evidence in the data of efforts of upper management to collaborate with employees in their organizations, nor did employee needs appear to be a major consideration, factors that were evident in the other conceptions.

Structure and culture could also be surmised from respondents' perceptions of organizational goals as can be seen in the following comments:

... My goal is to provide them with more information, more knowledge that will allow them to do their job better in the long run, and therefore the corporation will make more money. (R3-Carl)

But there's a lot of concern about public image because of all the bad press financial institutions received, even the healthy ones got lumped into that category, which we are, very, very healthy. But like any financial institution, probably any company in this day and age, the bottom line is so important, and the best way to get the best bottom line is to cut back on, you know, have really tight budgets and to do the most you can with the least amount of resources. And we are definitely one of those branches, I mean one of those banks where to keep our good, you know, record, so no, they don't just freewheel, spend money around training, and we're very handicapped in that we do not have a CEO that's real training-oriented. (R21-Wilma)

That it's up to us to be the best that we can be because oftentimes we're the only lifeline for those patients because the physician's aren't around all the time, and so to gather as much knowledge as you can so there's an expert available to consciously try to do the best that you can. (R13-Margo)

In the first two quotations, both respondents who trained in the banks viewed the "bottom line" of making money as being important in their organizations. Whereas in the third quotation, the bottom line was saving the lives of critical care patients.

There are two other indicators of the culture of these organizations, first of all respondents' views about lack of support for training as suggested in the preceding comments from Carl and Wilma, and secondly a perception of fear in various groups within the organizations. This "fear" was described in the following quotations:

...In critical care nursing you have a captive audience that has a vested interest in that because they know that they're going to have a patient just like that sitting in that bed one day, and it may be them, their own responsibility to make sure that that patient at least lives through their shift, you know, I mean, it's true and that fear really does motivate them. Plus it's really intriguing. (R13-Margo).

And then on a personal level, I talk way too much. I get - I'm so concerned with getting them all the information, I'm not - sometimes I forget to prioritize what's really important for them to get. I cram it all in and then - so sometimes I'm a little too detail-oriented and get them too wrapped up into the details, when really what they need is a good big picture focus, and it's enough that they get some basic information. I'm so worried that they're going to leave the room with a question I didn't answer and somehow they'll tell their store manager and the store manager will say, "Well how come you didn't cover that?" So I try really hard to - and that then gets into the whole problem of not having enough time. (R15-Olivia)

People are scared to death to communicate with me, for whatever reason, Jane. I don't know. I'm an ogre. I'm awful...! It's history. It's got to be the history of the bank, the history of what that position has been, the history of maybe they've been burned in the past.... I think they're afraid it's going to come back at them, because they spoke out and said something, fingered someone, or something you know, I guess that's the way they view it, at least this is what I heard. (R21-Wilma)

In the first quotation, fear was a motivator for the nurses to learn. In the second quotation, Olivia expressed fear of not providing enough information to the employees to satisfy store managers. In the third quotation, Wilma described an atmosphere of fear surrounding training, which she then perceived as being extended to her.

Even though respondents did not always explicitly relate these various factors to their ability to instruct, such a relationship clearly existed. In the bank where Carl worked, the lack of support for training was perceived as a challenge to him in his job, and Wilma felt handicapped by non-support in her bank. The fear factor evoked varied responses: Margo

regarded fear in the nurses she taught as a motivator for learning rather than a negative factor; however, Olivia related a tendency to provide too much information to her fear of the store managers, and Wilma viewed the atmosphere of fear surrounding training in her bank as a barrier to communication between her and other employees. So although respondents did not state that the context affected their ability to instruct, it was obvious from their comments that they were impacted.

To summarize this conception, instruction is understood as imparting information; the emphasis is on the content which consists of a body of predefined information; instructors are content experts who present information that they discern is needed by the learners who in turn receive and absorb it. There are several variations in how instruction takes place - by presenting information, persuading learners, and demonstrating skills. Four learning processes are evident in this conception, absorbing information, repeating information and skills, relating new information to prior knowledge, and applying new information and skills on the job. For the most part, this conception appears to be delimited by the context of the workplace, although one respondent limited it to teaching in the university.

Enablement Conception

Enablement Conception: WHAT Component

As shown in Table 4, the referential aspect of instruction in the Enablement Conception is assisting learners to share and apply ideas and experiences and was suggested by such statements as the following:

I see training, not as teaching, but as facilitating. You're not teaching people, you're sharing ideas. (R8-Helen)

Table 4

Structural analysis of the Enablement Conception

	Referential aspect	Structural aspect	
		External horizon	Internal horizon
WHAT Component	Assisting learners to share and apply ideas and experiences	Situational within workplace	<ul style="list-style-type: none"> ● Focus on learners ● Learners with experiences, needing knowledge ● Instructor as process expert ● Movement of knowledge among learners
HOW ₁ Component	Eliciting knowledge	Situational within workplace	<ul style="list-style-type: none"> ● Instructor as facilitator ● Act of eliciting knowledge ● Learners' acts of revealing knowledge
HOW ₂ Component	Sharing ideas	Situational within workplace	<ul style="list-style-type: none"> ● Instructor as facilitator ● Act of offering opinions ● Learners' acts of discussion & sharing
HOW ₃ Component	Nurturing growth	Learners' life world	<ul style="list-style-type: none"> ● Instructors as nurturers ● Act of encouraging growth ● Learners as resources for organization
(Learning) HOW ₄ Component	Taking information	Situational within workplace	<ul style="list-style-type: none"> ● Learners ● Act of taking (obtaining) ● Content ("stuff") being acted upon
HOW ₅ Component	Relating new information to past experiences	Learners' life world	<ul style="list-style-type: none"> ● Learners ● Object of learning (content) ● Acts of relating & challenging information
HOW ₆ Component	Applying new information on the job	Job situation in workplace	<ul style="list-style-type: none"> ● Learner ● Job situation ● Ability to apply new information/skills

...in your teaching, you don't really teach adults, you facilitate concepts.... To me, a pure teaching is more of a lecture. One-hour lecture. All good information, all good information you have to have, but - and you might even ask a few questions, but there isn't any, to me, the teaching part of it, you're not looking for their responses and practical application. (R9-Irma)

As shown in the second quotation, facilitating is usually seen as a rejection of the understanding of instruction as transmitting information. There is more assurance about the external horizon for this conception because most of the respondents for whom this was their primary way of thinking about instruction directed this understanding to the instructional situation they described in the interview. Frequently they differentiated their understanding between workplace training settings and formal education settings, but distinctions were also made within workplace settings. According to several respondents, certain ways of thinking about instruction might be appropriate in one setting such as with a particular type of content, whereas a different way of thinking would be appropriate with other content. Therefore the external horizon of this conception is situational within the workplace setting because although the understanding of instruction as facilitation was limited to the context of the workplace, it might not be appropriate for every instructional situation there.

Internal horizon: Focus on learners. As part of the internal horizon, learners are the primary element of focus because on the one hand, their knowledge needs are the center of program planning; and on the other hand, they bring practical knowledge to the instructional situation from their prior experience. Because of their prior experience, they are a major source of knowledge, which was apparent in several comments from the respondents:

It's very interactive, we call them workshops because we expect them to bring their personal situations to the classroom and we work through based upon what they're doing. (R9-Irma)

.... At the beginning of my sessions, I say, I go, "I think you have a lot of valuable ideas to share, so when you have a question or idea, please feel free to bring it up." And I say, I really want a lot of discussion. And so they know that first hand, and then they're comfortable with it. (R8-Helen)

Teacher is an expert, a person who lectures and instructs students, a facilitator facilitates the discussion, is not the expert, the participants are really the experts. (R11-Kathleen)

In the first quotation, Irma considered the learners' experiences as important resources for the implementation of instructional programs. In the second quotation, Helen also found learners' experiences to be useful resources. And in the third quotation, Kathleen contrasted teachers and facilitators, identifying learners as the content experts in contrast to facilitators who were not. Whether learners are considered experts or holders of valuable life experience, their ideas and experiences are a major source of the content of training programs.

Unlike the Transmission Conception, in this conception, it is not assumed that the instructor knows what the learners' needs are. Needs are understood primarily as needs for knowledge, or gaps between current and desired competence, as Gail stated when describing her needs assessment process:

So I did a paper-pencil needs analysis that was actually pretty extensive. It delineated specific behaviors in different, you know around a set of different managements or competencies. And I got real specific about what that meant, and asked them how effective are you at this, and how important is this to your success as a manager. And sort of gathered importance and effectiveness data and then I had the administrators do the same thing. And out of that I identified some really clear - it was really clear to me, going through that and analyzing the results, where the needs were. And so I then went back to the management team, and said, "OK, here are some of the key conclusions." And that did change where we ended up focusing. It got a couple of classes completely off the docket, and got us focused more on, well, softer management skills.... So it's one thing to say, "We think you need marketing, finance, you know, all these other kind of skills." And it was another - these people just looked at that and said, "Well, we don't use these. What are we going to do with this?" So, long story short, I guess the objectives kind of grew out of the needs analysis and looking at the strategic objectives of the hospital.... (R7-Gail)

This quotation provides an example of how organizational goals can be integrated with learners' needs. Although the organization had certain content it wanted managers to learn, there was no assumption that its content was the only content needed by the learners, nor that the learners' and the organization's priorities were the same.

Another belief supporting the argument that learners are the major focus of this conception is that learner involvement is essential to learning, whereas in the Transmission Conception the purpose of learner involvement seemed to be to keep learners alert. The importance of learner involvement in the instructional process was apparent in such comments as:

I also, I'm really in tune to adult learners - adult learning theory. Adults don't like to be patronized, and they like to know that what they're learning is directly applicable to their situation, and they learn best when they are, when they are actively involved with their learning process. (R8-Helen)

Respondent: ... So each facilitator does have their own little personal and unique way of - beyond that, it's a matter of don't talk more than four minutes without getting them involved.

Interviewer: That's kind of a standard that you have?

Respondent: Yes. (R9-Irma)

But more than that, just really worked to build in a lot more group discussion, because they learn from one another, rather than them getting one-way stuff from the instructors.... (R7-Gail)

In the first comment, Helen viewed learner involvement as a component of adult learning theory. In the next quotation, Irma cited learner involvement as a principle of practice in her training organization, and in the last quotation, Gail expressed her belief that learners should be involved because they learn from each other. At the same time, she did not want them to be uncomfortable, so she provided various ways of becoming involved, as she explained.

I think I do a pretty good job of - this is a personal view, but some people believe that everybody needs to participate in class, if you ask a question, somebody, everybody has to talk at some point, I truly - I used to try and do that, and I don't try anymore. What I do instead, is set up different activities, different opportunities to participate, and I assume that talking in a full group is something that some people are comfortable with and some people aren't, and so I don't even, I don't hassle that, I allow there to be, you know, six people that talk a lot in a full group, but I just make sure that those other people have the opportunity to participate in other ways that they will feel comfortable with, so I try and build in a lot of mixed, I don't know what you call these, but mixed activities. (R7-Gail)

Although learner involvement is important in this conception, its extent and type are not as explicit as they will be in the Constructive Conception. Here it appears to consist mainly of sharing and discussing ideas and experiences.

Thus learners as the focus of this conception are perceived as sources of content whose needs for knowledge and skills form the basis for instructional programs, and whose involvement in the instructional process is viewed as necessary for learning.

Internal horizon: Instructors. In the Enablement Conception, the role of the instructor is that of a facilitator whose function is to lead the process of sharing and applying ideas and experiences. The instructor's role and function were evident in comments like the following:

Yeah. Teacher is an expert, a person who lectures and instructs students, a facilitator facilitates the discussion, is not the expert, the participants are really the experts. (R11-Kathleen)

I guess the concept that we've worked with is instructors and teachers have a body of knowledge that is new to the person that they need to tell them, similar to a college setting. For us, we're more of a vocational kind of a situation in which we have a body of knowledge, but a lot of it is common sense, and we need to be more of a facilitator to get them to hear a concept and work it through so they can own it. (R9-Irma)

This role was frequently contrasted with that of a teacher in academic situations, as both Kathleen and Irma did. As facilitators, instructors are not necessarily required to have content knowledge, and in some instances, were characterized by respondents as "non-experts" as was apparent in the following comments:

I try and stay out of an authority figure-expert role with every ounce of my being. I constantly say, "Look, I don't know. What do you think?" And I, when I present content that may be new to them, I say, "I got really excited about this information, I was really able to apply it, let me just share it with you." And I do it from a much different perspective than... at a previous teaching experience... where it was very easy for me to step into an authority role and be the source of information. (R7-Gail)

I think that's a big responsibility to place on someone that you are the expert, you should have all the answers. And I think in the real world, we don't have all the answers. (R11-Kathleen)

In the first quotation, Gail equated expertise with authority and possession of "the final answer" on the subject matter. In the second quotation, where Kathleen, was discussing the role of instructor as facilitator and not expert, she also equated expertise with possession of the truth, viewing it as the totality of truth.

Unlike Kathleen and Gail who viewed instructors as "non-experts," Helen viewed the instructor as having some responsibility for knowledge about the content, as she explained:

Yeah. Facilitating is enhancing group discussion and helping the group, using yourself as a tool to help the group learn from their own ideas. A facilitator though, also knows the subject matter at hand pretty well, so they can keep a grasp on the subject matter. And if there's a question, or something that other people might not know, the facilitator might be able to answer it.... (R8-Helen)

However, it was also clear that the learners are to be the first source of knowledge, and the facilitator only fills in the gaps.

In this conception, the roles of instructor and learners appear to be reversed, or at least blurred, especially when learners are regarded as experts. Instructors relate to the learners more as peers and assume leadership roles only to aid in the sharing of information and experiences among the learners. Instructors intend that at some future time, learners will acquire the needed knowledge. How knowledge is to be moved from learners who have it to those who need it can be accomplished in three different ways.

Instruction Components

HOW₁ Component: Eliciting knowledge. As in the Transmission Conception, some of the components refer explicitly to instruction while others are more about learning. The first component referring to instruction is eliciting knowledge from the learners. It was evident in the following quotations:

...I'm not there to be the expert and to tell them I know it all and I'm going to tell you how to do it, but more or less, that they have that knowledge intrinsically in them. Maybe they need it refreshed, pulled to the surface, put in some organized manner for them. It's in there, but it's not working for them for whatever reason, and to have them, basically learn it for themselves. (R21-Wilma)

To me, a pure teaching is more of a lecture. One-hour lecture. All good information, all good information you have to have, but - and you might even ask a few questions, but there isn't any, to me, the teaching part of it, you're not looking for their responses and practical application. (R9-Irma)

.... At the beginning of my sessions, I say, I go, "I think you have a lot of valuable ideas to share, so when you have a question or idea, please feel free to bring it up." And I say, I really want a lot of discussion. And so they know that first hand, and then they're comfortable with it. (R8-Helen)

Instructors are to "pull" the ideas and knowledge from the learners, organize it for them, and help them apply it in practical situations. The external horizon of this component is situational within the workplace because even though some respondents differentiated ways of thinking, instruction as facilitation was limited to workplace settings depending, for example, on factors such as content. For the internal horizon, the elements of instruction are the instructor who is a facilitator rather than an expert; the process of drawing knowledge from the learners; and the learners' acts of revealing their knowledge.

HOW₂ component: Sharing ideas. The next HOW component of the Enablement

Conception is very similar to that just described, yet there is a different nuance in the

instructor's role. The referential aspect of this way of instruction is that it is sharing ideas, but it differs from the previous HOW because in this component the facilitators share their ideas along with the learners, whereas in HOW₁, instructors tend not to put forth their own ideas. At the same time, in HOW₂, the facilitators' ideas are to be presented as opinions, rather than as expert knowledge. This HOW is suggested by the following statements:

I'm kind of learning to express my opinions as opinions, and then open them up for attack and criticism, you know. (R7-Gail)

But, now, a large part of my training sessions is on discussion. And getting people - it's more of an informal setting, relaxed, throwing out questions, giving information when they need it, that kind of thing. (R8-Helen)

It's [facilitating] again, it's maybe throwing out an idea and getting them to talk about it, and apply it, make it sense to them.... Again we are doing some teaching - there's no doubt about that, these are concepts that we have to discuss. (R9-Irma)

As much as the respondents deemphasized the expertise of the instructor, they knew that in some instances, the instructor had some expert knowledge to share with the learners. However, even when the respondents were willing to share their expertise, they still wanted the learners to participate as resources, as Gail explained when asked how she described her function:

Well, facilitating rather than instructing. Which I do have one class in which I am the expert, at least in the class setting. But I guess, in that particular setting, I frequently know more than most of the people in the class. But, there is always one or two people that have studied it, and so I defer to them a lot, I'll call on them and say, "Jim, what did you guys do with this when you took this in your MHA program?" And get, you know, just keep bringing them in as experts. (R7-Gail)

The external horizon of this HOW component is situational within the workplace because as can be seen in the last quotation, Gail referred to a workplace situation in which she viewed instruction somewhat differently, but not so differently that she would espouse a totally

different conception of instruction such as the Transmission Conception. In other words,

situations exist in which it is necessary to convey information, but the emphasis remains on the learners whose expertise takes precedence over the instructor's expertise, thus placing this component within the Enablement Conception. The internal horizon is somewhat different: the instructor is still viewed as a facilitator and the learners are active participants, but the process consists of the instructor presenting ideas along with eliciting knowledge, and of the learners' acts of discussion and sharing.

It seemed important to separate these two ways of instruction because some respondents were so resolute in their assertion that they did not instruct. It can be speculated that such an assertion is an espoused theory, because it seems doubtful that they never shared their own ideas, however tentative, with the learners.

HOW₃ component: Nurturing growth. A third way of instruction suggested by the data is nurturing the growth of the learners. This is not necessarily a way of moving knowledge from learners who have it to those who need it, but it is consistent with the focus on learners in this conception and is an activity that group process leaders would do. It was evident in such statements as the following:

Respondent: *That's, you know, I think that's what training attempts to do, that's what training does, or training does with adults. It helps, you know, cause that extra foliage, you're branching out a little bit, growing more.*

Interviewer: *So would you say, maybe that's kind of your overall goal in instruction is this growth in the people that are...*

Respondent: *Definitely. Also, though, is - I'm concerned with [my company], or with an organization too, and how [it] will benefit from the training, too. So on an individual level, but also on an organizational level. It's good to have that well-rounded idea of what the organization wants, too. (R8-Helen)*

Respondent: *The mission in my life, I've discovered, is to help people learn how to be more loving and compassionate for each other. And so I find that everything that we do here, even though it's sales, is teaching them how to be more compassionate of*

other people, how to be more lovingly considerate, and yet get things accomplished.... So I think it's a matter of we really enjoy seeing people grow. (R9-Irma)

And really, the end result, though, is to help employees move along and be challenged and be productive and be content.... So it's [goal of the course] real focused on building up the employees, their skills, their place in the company. (R18-Sally)

In all of these quotations, the respondents mentioned goals of wanting the learners to grow as persons, although this was for the benefit of the organization as well as for the learners' own good. It could be argued that the external horizon is the workplace because personal growth is ultimately for the organization. However, in keeping with the above definition that the external horizon should be the broadest context for which there is evidence, it seems more appropriate to designate the learners' life world because personal growth can surely extend beyond the confines of the workplace to life in general. As the internal horizon, instructors are seen as nurturers, the action is encouraging growth in abilities, and learners are viewed as resources for the organization.

The first two components of instruction are quite similar except for the addition in the second one, of the instructors' acts of sharing their own ideas with the learners. The third way of instructing is different from the first two in terms of the internal horizon. It seems to weaken the focus on the learners in this conception, because it suggests that the real focus is the organization for which the employees are considered to be resources.

Learning Components

HOW₄ component: Taking information. This HOW component is very similar to that of the Transmission Conception, both in terms of its referential aspect and how it is accomplished. The difference is in the source of information. The referential aspect is receiving or taking information from other learners, as suggested by the following comments:

For adults, learning is the process of obtaining new information about a topic which they may already be familiar with.... (R8-Helen)

But more than that, just really worked to build in a lot more group discussion, because they learn from one another, rather than them getting one-way stuff from the instructors.... (R7-Gail)

From these two quotations, it can be assumed that information is thought to be received ("getting one-way stuff") or taken from other learners ("obtaining new information"). There were not many explicit examples in the data of taking or receiving information, however neither was learning thematized in other ways except as application. The presumption is that the process of discussion consists of the giving and receiving of information among the learners. The external horizon of this component is situational within the workplace because the context does not appear to be differentiated in any way from the WHAT component of this conception. The internal horizon consists of the learners with knowledge and experiences, the act of taking or obtaining, and the content or "stuff" being acted upon.

HOW₅ component: Relating information. The referential aspect of the second learning process is relating new information to past experiences, as suggested in the following quotations:

For adults, learning is the process of obtaining new information about a topic which they may already be familiar with and applying what they're - applying the information to their past experiences.... (R8-Helen)

What's learning?... I guess building a personal context for information, I mean you can be handed information, you can take in information and if you don't build a personal context for it, that may be where it stays. So I think it, I mean one aspect of it is beginning to think about it in terms of your own experience and how it applies there. But I think another aspect of it also is challenging the information that is presented, so on the one hand it's taking it in and personalizing it and on the other side, it's questioning and challenging it and asking if that's really true, you know, do I have any experience that confirms that or experience that denies that. (R7-Gail)

These responses were given to the interviewer's question of "What is learning?" suggesting that learning was not thematized by many of the respondents. Even though both Helen and Gail used the word "apply" to refer to this learning process, from the context of the quotations it appears to mean that once information is obtained, it is related to prior knowledge and experience, then applied to the present situation.

This learning process is similar to that described in the Transmission Conception in which new information is to be related to existing knowledge and experience. However, the process of integrating new information with existing knowledge described in the Transmission Conception appeared to be missing, or possibly assumed in this conception. At the same time, a feature of the learning process found in this conception but not in the Transmission Conception is that introduced by Gail, namely that new information should be challenged and questioned before being accepted, which could be construed as part of a process of integration.

The external horizon of this component is the learners' life world because the substantiating quotations do not appear to limit experiences to work but to assume that new information can be related to any life experience or prior setting. The internal horizon consists of learners with prior experiences, the object of learning (content), the act of relating information, and the act of challenging information that is incongruent with experience. This last element of the internal horizon differentiates it somewhat from a similar way of learning in the Transmission Conception in which no indication was given that learners might find that what was being learned conflicted with their prior experience.

HOW₆ component: Applying information. The application of information is the final explicit learning process of this conception and the learning outcome as well. It could be argued that learning is not thematized in this conception because it was usually taken for

granted unless introduced by the interviewer. However, when instruction was described, application was frequently cited as a distinguishing characteristic, as is evident in the quotation below from Irma; and when respondents were asked about learning, application was usually part of their response. Therefore, it could be said that in this conception, learning is thematized as the application of knowledge. Its importance is evident in the following quotations:

To me, a pure teaching is more of a lecture. One-hour lecture. All good information, all good information you have to have, but - and you might even ask a few questions, but there isn't any, to me, the teaching part of it, you're not looking for their responses and practical application. So there is some teaching, obviously, in what we're doing, but the key thing is how do I apply it. (R9-Irma)

Respondent: And the only real way I have for evaluating that is whether - is what people tell me about it when I ask, "Have you used this? How did it go? What did you do specifically?" And people are able to tell me exactly what they did....

Interviewer: So maybe you'd say, then, that learning is being able to utilize the information of whatever you've heard or...

Respondent: Sure. Yeah. Apply it. And get the results you anticipated. (R7-Gail)

I think with a good class, people leave feeling motivated, like, "Wow! I've learned something. I can really do something with this information." (R8-Helen)

In the first quotation, Irma expressed her belief that the practical application of new information is the process that distinguishes facilitating from instruction. In the last two quotations, evidence of learning for Gail and Helen is the ability to use new information. It can probably be speculated that the external horizon of this component is the job situation in the workplace setting, although that is not entirely clear in the preceding quotations. However, the respondents appear to be referring to the use of information by the learners in their jobs, thus limiting this component to that context. The internal horizon consists of the learners with new information, the job situation, and the ability to use and apply information or skills.

As in the Transmission Conception, these three learning processes suggest a more complete understanding of learning than the individual quotations do. Information is obtained from other learners, related to existing knowledge and past experiences, challenged if it is incongruent, then applied on the job. It differs from the Transmission Conception in several ways: (a) the source of information is primarily other learners rather than or in addition to the instructor, (b) both steps of integrating new information with previously learned knowledge and reviewing or practicing information or skills are omitted, and (c) challenging information was present in this conception but absent from the Transmission Conception linking this conception to the Constructive Conception. As in all the conceptions, the learning processes described here represent a very incomplete picture of what is involved in learning and are only presented to illustrate how learning, as part of an overall concept of instruction, is construed.

Other Indicators of the Enablement Conception

Besides these WHAT and HOW components of instruction, there were other indicators of the Enablement Conception in the data related to how respondents viewed knowledge and the context.

Knowledge. In the Enablement Conception, knowledge is still thought of as a body of information, but rather than existing in external, authoritative sources, it exists within the learners as a kind of experiential knowledge. It was described as "common sense," and is derived from practical experiences which are the source of its authenticity. Many people are assumed to have some knowledge of a phenomenon; therefore, there are multiple ways of looking at the same phenomenon with no evident criteria for determining validity. Evidence of

the respondents' thinking about knowledge is contained in comments like the following:

...I'm not there to be the expert and to tell them I know it all and I'm going to tell you how to do it, but more or less, that they have that knowledge intrinsically in them. Maybe they need it refreshed, pulled to the surface, put in some organized manner for them. It's in there, but it's not working for them for whatever reason, and to have them, basically learn it for themselves. (R21-Wilma)

I guess the concept that we've worked with is instructors and teachers have a body of knowledge that is new to the person that they need to tell them, similar to a college setting. For us, we're more of a vocational kind of a situation in which we have a body of knowledge, but a lot of it is common sense, and we need to be more of a facilitator to get them to hear a concept and work it through so they can own it. (R9-Irma)

In the first quotation, Wilma thought of knowledge as intrinsic to the learners only needing to be drawn forth by the instructor. In the second quotation, Irma contrasted the academic world (in which she had previously worked) with training and described knowledge in training situations as common sense knowledge with which learners need help to apply to their current jobs. No attempt was made to discover what the respondents meant by common sense knowledge; however, it was clear that it exists within the learners rather than in external, authoritative sources.

With the emphasis on learners as sources of knowledge, there is little sense of a single, authoritative "truth" that all are expected to learn, rather there are multiple perspectives and many ways of doing something, as was apparent in the following quotations:

And my agenda is, particularly in this first class, is to encourage any and all participation. I really try and set the tone for an open exchange of ideas and there's no right or wrong answer, and I'm not looking for any particular answer when we talk about things, you know, mostly just try and encourage them to do their own thinking and respond to the other ideas in class. So that's really fun for me. And I don't, you know, I don't do much reinforcing, I don't do a lot of, "Hey, that's a great idea!" I do more of, you know, "That's a really interesting approach to it. Does anybody have a different approach?" I do a lot of very neutral kind of facilitating. (R7-Gail)

Again, it comes back to the fact that we're all adults, we all have hopefully a thought process that gets us to the way we feel about things. I think it's important to me to be open and to be receptive, but the fact that we don't all have to agree.... (R11-Kathleen)

.... I also think that I'm a very fair individual, I bring a lot of fairness to a situation, I don't have a lot of bias when it comes to a teaching environment. I'm really willing to hear all sides to an issue and to let those be aired and to not just cut them off. I don't feel like what I have to say is so right and so true - that other people's ideas or comments are always valid. (R21-Wilma)

In the first quotation, Gail clearly thought that the learners' perspectives were more important than her opinions. In the last two quotations, Kathleen and Wilma were also open to the learners' perspectives, although not in as strong a manner as Gail.

Because all perspectives are acceptable, the criterion for the validity of knowledge is the relevance learners find in it, and because the interviews were about training in workplace settings, it can be assumed that the learners' job experience is the primary focus for relevance. Additional support for 'relevance' as the criterion for the validity or usefulness of the information is in the internal horizon of the fifth HOW component of this conception which is challenging new information. It may be recalled that Gail (p. 133) believed that an important aspect of learning was challenging new information to discover if it was compatible with the learners' experiences. Thus in the Enablement Conception, knowledge is seen as common sense, gained through experience, existing in the learners whose relevance is the standard by which it is to be judged.

Context. Workplace settings represented by respondents for whom the Enablement Conception was their predominant understanding of instruction include a sales training organization, a hospital, a non-profit health care organization, a public utility, a computer software company, and a bank. It can probably be assumed that these organizations, too, are hierarchical in structure because of references made to upper management. However, some comments suggest that the culture was perceived as more collaborative than that of the Transmission Conception. As was pointed out when the referential aspect of this conception

was discussed, learners were consulted prior to the design and implementation of training

programs. In addition, managers were seen as supportive and often participated as facilitators and instructors as was apparent in the following quotations:

We're real lucky - the programs from - not so much from the computer side but from the management of employee development comes from on high. They're part of the program, they see the program ahead of time, and they bless it. And it falls down the line, which helps tremendously, so we have a lot of support. (R18-Sally)

Our commissioners have assistants that are called policy assistants and one of those assistants has been one of our certified facilitators, which I think also lends credibility. The district manager and his assistant which is the equivalent to a management level person is also one of our facilitators. (R11-Kathleen)

And most people, I would say, 90% of the people in it are thrilled to be there because they never have had an opportunity like this. Although there are some people who feel like "this is a lot of time and I'm not sure I need it".... And their managers are actively involved, they're at the administrative level in the hospital, and they're actively involved in supporting the classes. Each class has a sponsor and, so for me, there's a communication link between them and their managers. That's critical to them being more successful, it's also critical to this program getting the support that it needs. (R7-Gail)

In the first quotation, Sally cited managers' approval of and participation in training programs; in the second quotation, Kathleen explained that managers were facilitators in the training programs, and in the third quotation, Gail said that managers acted as sponsors for training programs.

A concern for employee growth and development is also evident and was described in the third HOW component of this conception - "nurturing growth." It may be recalled that several respondents mentioned goals of "nurtur[ing] individual strengths and growth" even though the end goal was "so they'll be happy in their organization and will be able to grow with the organization and stay there for longevity" (R8-Helen).

Respondents related these factors more to the training function within the organization than to their instructional practice, and they spoke of them in a positive way. For example, in the comments just cited, Sally said that management support "helps tremendously;" Kathleen

indicated that the involvement of management "lends credibility" to their training programs; and Gail viewed the "communication link" between her and management as critical to the success of her programs.

To summarize the Enablement Conception, its referential aspect is assisting learners to share ideas and experiences and to apply this common sense knowledge to their jobs. Instructors are not content experts who present, but are process facilitators who engage learners (the content experts) in discussion and sharing. There are several variations in the way instruction takes place - by eliciting knowledge from the learners, sharing the instructors' opinions with the learners, and nurturing the learners' personal growth for their well-being and the good of the organization. Learning processes associated with this conception are taking information primarily from other learners, relating new information to life experiences, and applying newfound knowledge on the job. Learners are clearly the element of focus. This conception of enablement is delimited by the context of the workplace and can be even further delimited by specific elements or situations within the workplace such as the content being taught. However, some components of this conception are not delimited by the workplace but extend into the life world of the learners.

Constructive Conception

Constructive Conception: WHAT Component

As depicted in Table 5, The referential aspect of instruction in the Constructive Conception is involving learners in an experiential process of discovering meaning. Unlike the other conceptions, respondents in this conception appeared to thematize learning as an important part of their understanding of instruction so that learning is the element of focus.

Table 5

Structural analysis of the Constructive Conception

	Referential aspect	Structural aspect	
		External Horizon	Internal Horizon
WHAT Component	Involving learners in an experiential process of discovering meaning	All instructional situations	<ul style="list-style-type: none"> ●Focus on learning ●Instructors as content & process experts ●Learners with experiences needing new knowledge ●Movement of learners to understanding
HOW ₁ Component	Identifying learning goals	All instructional situations	<ul style="list-style-type: none"> ●Instructor's goals ●Learners' goals ●Act of negotiating
HOW ₂ Component	Providing experiences	Context dependent	<ul style="list-style-type: none"> ●Concept (content) ●Act of providing experience ●Instructor as facilitator
HOW ₃ Component	Providing an environment for learning	All instructional situations	<ul style="list-style-type: none"> ●Instructor as facilitator ●Information available from multiple sources ●Acts of leading discussion, structuring concepts, providing resources
HOW ₄ Component	Modeling a way of being	All instructional situations	<ul style="list-style-type: none"> ●Instructor as model ●Ways of being ●Act of discussing experience
HOW ₅ Component	Challenging learners	All instructional situations	<ul style="list-style-type: none"> ●Learners' comfort & willingness to cooperate ●Instructor's desire for learners to risk ●Act of balancing challenge & support
(Learning) HOW ₆ Component	Experiencing a concept	All learning situations	<ul style="list-style-type: none"> ●Concrete experience ●Act of realizing meaning
HOW ₇ Component	Relating new concepts to past experiences	Learners' life world	<ul style="list-style-type: none"> ●Learners ●Acts of relating and understanding
HOW ₈ Component	Retrieving & applying new concepts	Job situation	<ul style="list-style-type: none"> ●Situation ●Learner ●Acts of retrieving & using concepts/skills
HOW ₉ Component	Applying new concepts in one's life world	Learners' life world	<ul style="list-style-type: none"> ●Newly learned concepts/skills ●Learners as agents of change ●Situations ●Ability to make relationships

The following quotation is an example of the thinking that epitomizes this conception:

... And the other thing I think is being somewhat strict - my idea about teaching has probably become stricter in that I really, truly believe people have to do things themselves. And spoon feeding in general, spoon feeding knowledge doesn't go very far, so I tend to, for instance, in the team building problem. I worked at the ...School for Citizen Leadership last summer and I'll be doing it again this summer. I go as a loaned - the firm loans me as a loaned executive to that organization and we work with teenagers, but during the staff training portion of that last year, I taught the staff an Outward Bound exercise that takes about two hours, it's a group problem solving and communication exercise and I taught it to staff, because we're going to have a hundred kids I needed two staff per group of ten kids, or twelve kids or something like that. And I was very interested to see that the staff wanted to - they're all nurturing type people, and I was very interested to see that the staff wanted to help, help, help. Give clues here and there. And I had to really struggle myself to come up with a way to help them understand that that's not the way that their students are going to learn what they need to learn from this exercise. And, so for me, you know, that's been a real challenge to say, well what do I want to get out of it and do I need to - it kind of goes both ways, because I can tend to get too strict, and then somebody says, "Gees, if you'd just told us that, we could have caught on a lot faster, or whatever. You really wasted our time." "Oh, my mistake." But I think in teaching teachers especially, that becomes a real important area is letting the learner learn by experience, discover on their own, through their own, you know, gut wrenching process of realization, whether it's technical or philosophical, the learner has to grasp it. (R6-Faith)

Faith believed that learning was realization and understanding and that in order to understand a concept, it must be experienced. Her belief was so firm, that at times she neglected to provide enough preliminary information for the learners. The external horizon of this conception appears to be broader than that of the other two conceptions. All of the respondents for whom the Constructive Conception was interpreted as being their primary understanding of instruction had had other experience instructing, whether it was children with speech problems, at-risk youth, elementary school, or in other workplace settings. However, they all appeared to express basic beliefs about instruction that they would apply in any setting. Therefore the external horizon is designated as all instructional situations because their understandings were not delimited to the workplace setting, although there are some variations in the different components.

Internal horizon: Focus on learning. The internal horizon, or the way in which the elements of instruction are understood, includes in the first place a focus on learning. As mentioned above, learning is thematized in this conception and not taken for granted in that respondents frequently spoke of instruction in terms of learning. The learning process was described in various ways:

How would I describe learning?... How do you know when it's happened? (Pause) You can feel it. You just, it's much more in you, it's not just in your head. Well, it depends on what you're talking about - the kind of learning of attitudes and personal habits, I mean, what I'm trying to teach... when I see that little light bulb go off,... Because all of a sudden they realize more what is involved. Actually, that light bulb,... the "Ah-ha" experience and I don't know how to explain it, but I know when it happens. It's definitely, I feel it's real gut... it's not something you can always verbalize. (R5-Eileen)

I think that when a person can actually have hands on experience, when you can grab it, not only intellectually, but verbally, and somehow physically, either by demonstrating proficiency or doing it or just letting it be in your whole system, it's a lot more - if you can put your arms around it, you can carry it somewhere. But if it's just in your head, it's just as easily gone the very next day. (R6-Faith)

It's not till you do something together that you recognize what the components of a team really are. And then once you have kind of an "Ah-ha" experience, especially if it's with your own work group, then you can really define, not only what is teamwork, but what are the characteristics of the various constituents on a team. And how you have to, then you can really have some concept of what leadership is, then. So then maybe you're learning, you can learn more conceptually by actually, physically, let's say just building a small project, or putting puzzle together. (R6-Faith)

...Learning is a greater understanding or a greater ability about a condition or a thing or a job or whatever it is, then you had before you started. And that you're able to do something, or think about something, or analyze or have a different kind of attitudes towards it than you had before whatever it was that caused that change to happen. (R17-Robert)

In the first quotation, Eileen described learning abstractly as discovery and understanding. In the second quotation, Faith saw learning as the result of the whole person's involvement in an experience, of which she gave a concrete example in the third quotation - an understanding

of team as the result of a group's involvement in a project. In the last quotation, Robert described learning as understanding and change. Learning as an outcome is viewed as understanding the meaning of a concept; learning as a process is discovering and constructing that meaning.

Internal horizon: Instructors. In this conception, instructors are perceived as having both content and process expertise, but not to the exclusion of others engaged in the instructional process. Their role is that of facilitator or model, but with different meanings from the other conceptions. The functions of the instructor as facilitator were described in the following way:

Interviewer: How would you define facilitating?

Respondent: Um, that we are partners - I'm partners with the people in my class, to make learning possible, not that I am pouring in the learning into their heads, so I'm creating an environment and kind of directing things, and keeping them on track, and helping to focus, and balance and draw people in who need that, and limiting people who need some, you know, boundaries, and uh, so keeping things on track, focused and in balance. (R5-Eileen)

Interviewer: So you're not totally turning everything over to them.

Respondent: Right. No, I'm not, totally. No, I mean I'm responsible for what goes on, because I'm the one getting paid for it, but I do encourage them that my view is that I want them all to be co-facilitators. But certainly there are limits to that metaphor, it's true, because they haven't had to spend x-amount of time preparing the materials and having a plan and a roadmap in mind - that's my job. (R5-Eileen)

In the first quotation, a function of the instructor is to manage the instructional process. This assumes instructor expertise for understanding the concepts being taught, so that there is no denial of responsibility and authority as there is in the Enablement Conception in which instructors are non-experts and the learners' perspectives predominate. The second part of the quotation suggests a certain authority and control vested in instructors because of their preparation for the program and their responsibility to their employer. Although instructors

are viewed as partners with the learners, the instructors' expertise and direction are important characteristics of their role.

The instructors' responsibility for expertise and competency was more explicitly stated in the following comments:

Adults don't have the tolerance for a teacher who doesn't know what they're doing.... attorneys and people that think the world spins around them are very similar to juvenile delinquents, youth at risk, in terms of the way they learn, and what a teacher has to be able to do. So both youth at risk and high-powered business executives - you have to know what you're doing from A to Z, and there's no room for error. (R6-Faith)

...sometimes it gets real tiring designing new programs, where you end up feeling spent.... Because there's that kind of dilemma that you need to keep up quality because, since I really, I don't have formal authority over these folks - I don't say, "You've got to take this course" - so there's no formal authority whatsoever, and any authority I have has to come from the competency of the programs. And you reach that point at which you think, "Can I really design another program?" (R22-Yvonne)

If instructors do not manifest competence and expertise through their training programs employees will not attend.

The other role attributed to instructors in this conception is that of model, which also suggests some expertise on the part of the one modeling. Nancy in particular described the instructor's role as that of a model:

Well, I see facilitating as modeling. So maybe a metaphor would be - you know what immediately comes to my mind is a picture of a mother duck... all the little chicks sort of waddling behind and you talk about imprinting and all that and how, you know that they sort of follow along and learn by watching and by doing - I don't know that that's a metaphor. It's just a visual.... Modeling really comes to my mind when I'm thinking about a metaphor. That I feel like, that as the facilitator, and maybe it's because of this real strong goal of wanting to pass on what I believe teachers ought to be doing in the classroom with kids. And so as a facilitator, I'm modeling what I want them to be with kids, no matter what the content is. (R14-Nancy)

Nancy's metaphor of a mother duck demonstrates that she perceived the instructor's role as that of modeling a way of being an instructor, an understanding which is somewhat different from the demonstration of specific processes of the Transmission Conception. There will be

further discussions of the facilitating and modeling functions of instructors when the various components of instruction are described.

The authority and control that content expertise appears to vest in the instructor is to be exercised in partnership with the learners, as Eileen pointed out when explaining what she meant by facilitating (cited above R5-Eileen, p. 144). Partnership implies a shared responsibility between instructor and learners, as Lois and Donna pointed out:

...There is a shared responsibility for teaching and I think it was because it was so painful for me to think that I wasn't reaching everybody therefore I was not... really a good instructor, so learning that lesson and reminding myself of it, because I tend to still have some of those expectations, was important not to diminish my involvement, but to be a little bit more realistic about them. (R12-Lois)

Also I'm more realistic about what I expect out of myself, too. I don't assume all the responsibility for what happens in that room. And I set that up at the beginning, that it's a group thing, that we're all resources. (R4-Donna)

As facilitators, instructors manage the instructional process, and as models, they demonstrate ways of being. In both instances, they are responsible to be competent and they share responsibility for instruction with the learners.

The instructional style in this conception is one of adjustment and negotiation. The following quotations provide examples of adjusting both content and instructional processes to the learners' needs:

Respondent: a couple of months ago I was doing a workshop, actually the second half of a workshop that I was doing and actually - we didn't do that because we had already done that the first half. But there was a couple of months in between the two sessions. Anyway, now we're into it I realized that what I - what we were going to talk about or planned to talk about - they - that's not where they were. There were all sorts of internal strife. So I just had to say, "What are your concerns?" which opened out a whole list of them.

Interviewer: So you can adjust then, or you do adjust in that...

Respondent: Oh, you have to. Those times when I have barrelled through what I had planned because it's there on the sheet, which is not in concert with where people are, have been just awful. [You] just sort of slog through this, that's a terrible feeling. I think that - I don't think that teaching or training is acting, but I think it's very much like acting

in that good actors, people who are in the... respond to the audience, audience's different signals.... They all, there's that communication or electricity or that or whatever it is - and they feed off of each other and a good performer is always adjusting, they adjust the pacing - all that kind of stuff. I don't think trainers are performers, but I do think that you have to respond to the participants in the same way. You have to kind of go where they are without, you know, saying, "OK what would you like to do today?" So that's extremely important. (R17-Robert)

Even though I thought the course already was very experiential and a little didactic, they still said what they really liked were the experiences, so I made it even more that way, let go even more of the information that I had. And they were really responsive and felt real good seeing that I did that adjustment. (R5-Eileen)

In the first example, Robert described the consequences of not adjusting to learners' needs, whereas in the second example, Eileen described the reaction of the learners when their needs were accommodated. When it is not possible to adjust entirely to learners' needs and interests because other factors such as program goals must be considered, learning goals are negotiated with the learners as described in the following quotations:

Interviewer: When you say co-developer, what kinds of things did you have them work with you on in developing the class with them?

Respondent: Well, I would have my own goals, and I would lay those out, and say this is what I think, and we'd discuss that, and sometimes discuss it ahead of time, too, rather than waiting for the first classroom session or whatever, you know. But then always setting up activities that allowed them to make choices about the things that they were focusing on.

Interviewer: Did you ever change any of your goals because of input from them?

Respondent: Well, yeah, oh sure, definitely. Not so much skill goals, although sometimes, if it were completely irrelevant, there would have to be a negotiation, well that just isn't anything that I would ever do and then I might say, well, it might be something you want to do in the future or, you know, like say taking blood pressures or something. And somebody might say, "well the nurse doesn't let me take blood pressures at my clinic," or whatever, and "well, this might be something you might want to have a skill for another time (R10-Jeanne)"

Interviewer: You said you like to know what the learner's needs are, but are there any limits to...

Respondent: Yeah. I think so probably, because, and I guess I only ask the question to the extent that I'm willing to compromise on whatever... I had planned. I have an agenda. Or I have a mandate from my executive committee, or the management partner of the firm that says, "You've got a half a day to teach these people this stuff." And if that's not what they came to learn that day, and I can't get to the agenda, then I'm in trouble, so sure, that's right. (R6-Faith)

In the first instance, Jeanne was willing to alter instructional goals if the learners' goals were relevant to the course. In the second quotation, Faith explained how she had to consider the organization's needs and goals as factors in any decision to adjust content. Both content and processes can be adjusted to learners' needs within certain parameters such as the nature of the course and the needs of the organization, therefore the style of instructors is to negotiate course goals while considering intervening factors.

Internal horizon: Learners. At first glance, it might appear that learners in this conception are not perceived very differently from those in the Enablement Conception, because in both they are seen as participants. However, unlike the Enablement Conception, they are not always content experts in contrast to non-expert instructors. Rather they are partners in the teaching-learning process, who along with the instructor are sometimes novices, sometimes experts depending on the topic. The following quotations illustrate how learners were viewed in this conception:

The biggest hurdle I had to overcome was that in a formal academic environment, the teacher is the expert and the students are there to pick up what they could from the instructor. In adult learning, I've come to know that we all are experts in some things and we're all learners in others. And that I do not have to be responsible for being the fountain of wisdom for all things. (R4-Donna)

Respondent: ...I'm responsible for what goes on, because I'm the one getting paid for it, but I do encourage them that my view is that I want them all to be co-facilitators. But certainly there are limits to that metaphor, it's true, because they haven't had to spend x-amount of time preparing the materials and having a plan and a roadmap in mind - that's my job.

Interviewer: How do they react to that?

Respondent: Well I think, I mean at first, I think. When I first say it, it doesn't - they don't really know what I mean. Or they don't really believe it. But I think by lunchtime, they start to get it and see that truly, whatever they have on their minds, whatever suggestions or criticisms or reactions they have are truly welcomed and will be heard and very possibly, very likely incorporated, if at all appropriate or possible. But it takes a while for that to become believed.... I think it's very empowering. (R5-Eileen)

What I say to the groups is, "Now we're going to be going through a training process right here, and so as you experience it, you can sort of wear the hat of a participant and an observer, or have a content hat and a process hat, and if you do that - it's sometimes difficult to switch between the two, but if you can do that, you'll get a lot more out of it." (R17-Robert)

In the first quotation, Donna told how she came to discover that both the instructor and the learners could at some times be experts and at other times be learners, thus implying a partnership rather than an hierarchical relationship. In the second quotation, Eileen described learners as co-facilitators (reflective of a previously cited quotation [R5-Eileen, p. 144] in which she referred to learners as partners). Then she explained how she responded to the learners' criticisms and suggestions. In the last quotation, Robert referred to the learners as participant-observers which would place them sometimes in the role of learners and other times as experts.

Thus in this conception, learners are never seen solely as receivers; and the roles of instructor and learners can be exchanged with responsibilities for instructing and learning shared depending on the topic. As participants, learners' involvement is more complex than the sharing of information described in the Enablement Conception. Learners' needs are factors in the negotiation of learning goals along with the needs of the organization. The instructors relate to the learners as partners and invite them into the process at the point of negotiating learning goals and objectives, then work with them to discover or construct new knowledge, new ways of relating and integrating concepts, or new ways of performing some task.

Instruction Components

There are five ways in which instructors attempt to move learners from needing to learn new content to understanding it.

HOW₁, Component: Identifying learning goals. The referential aspect of the first HOW of this conception is identifying learning goals, which is apparent in statements like the following:

It's working with the client to help them identify what it is they're really after, what are their goals and objectives. So that then I can work on what are my goals and objectives, what is the focus of this course. (R5-Eileen)

So guidelines, for me, is I definitely sit down and identify what my goals and expected outcomes are, and to analyze what my learning population is, who am I talking to, am I working with?... (R6-Faith)

So for the first hour and a half, there would - we did some introductions and we got to know each other better. Which I think is an important part of a session. So that's - after that which was really data gathering, needs analysis data gathering, so after that I felt more comfortable and we had established a common set of goals and understanding. (R17-Robert)

It is clear from the first and last quotations that Eileen and Robert established learning goals in partnership with the learners. This emphasis on learning goals provides further evidence of the focus on learning in this conception.

The external horizon of this component of the Constructive Conception consists of most instructional situations because respondents appeared to view the setting of goals as a principle of practice whenever they taught, thus not limiting this component to the workplace setting where they were instructing at the time of the interview. The internal horizon consists of the instructor's goals, the learners' goals, and the negotiation of common learning goals.

HOW₂ component: Providing experiences. The referential aspect of the second HOW of instruction is providing experiences. This was evident in the following comments:

And I learned as a language therapist, that first the child has to have the concept and they learn that through experience, so it was when I worked with little children and really seeing, how do you teach a child to say "more" - you know, the first word I would choose to teach any kid who can't talk - "more!" - very powerful word. And first they have to experience that's a possibility, the experience has to come first, from which they'll build the cognitive awareness, and then, I can give them some skills on top of that. So I guess it was my strong experience with all of that and working with developmentally disabled and brain-damaged, and all kinds of very tough-to-teach candidates. And if I found ways that worked with them, I could find ways that worked.... (R5-Eileen)

... I really, truly believe people have to do things themselves. And spoon feeding in general, spoon feeding knowledge doesn't go very far.... And, so for me, you know, that's been a real challenge to say, well what do I want to get out of it and do I need to - it kind of goes both ways, because I can tend to get too strict, and then somebody says, "Gees, if you'd just told us that, we could have caught on a lot faster, or whatever. You really wasted our time." "Oh, my mistake." But I think in teaching teachers especially, that becomes a real important area is letting the learner learn by experience, discover on their own, through their own, you know, gut wrenching process of realization, whether it's technical or philosophical, the learner has to grasp it. (R6-Faith)

Both Faith and Eileen believed that processes that give learners a direct experience of the content to be taught are effective, but they also saw limitations to experiential processes, as can be seen in the following comments:

... There's a lot of structure that's the same, no matter what the topic that we open with people, you know, with getting clear focus, both I try to show them my focus and try to get them to get a focus and a goal, and try to do as much of it as possible through experiences. I don't always feel real able to do that. Like with time management. I'm still always struggling to figure out ways to make that more - I mean it's at least doing worksheets and working through a problem, but it's not quite the same thing. I haven't quite figured out how to do that. (R5-Eileen)

Interviewer: Are you able to do that in the setting here most of the time?

Respondent: Oh, to a certain extent in discussions, but in some of my dream projects that we hope to do someday when we have more resources, we'd like to take our practice groups and our management group, do more team-building and more communication oriented things, that's where that'll be able to happen. I think orientations are very much information giving, and there's only a few sessions that are

designed to be something they can kind of grope through and come up with some ideas on, because of the nature of the content is just that way....

Interviewer: Yeah. I was wondering if you could always have them engage in a discovery type approach to everything.

Respondent: No, I don't think so. That would be kind of humorous, I think, yeah to develop a new system for routing the messages. (R6-Faith)

The two respondents concluded that experiential processes were not appropriate for all content and instructional goals. Robert also thought it was important to relate instructional processes to the goals of the program, as can be seen in his reply to the question of what his gifts as an instructor were:

And having a clear sense of purpose about what I'm doing, so that's part of the focusing part - knowing why we're doing what we're doing. I think there's a lot of training, a lot of trainers who use activity for activity's sake, you know. And that's one of the traps we fall into with experiential work...You have to examine, analyze the process - the process in order to know what it is that you're going to learn. And that's the propose for doing it. And so - but there's a lot of training that's a whole bunch of exercises, but what's the purpose of this. (R17-Robert)

Another factor that can limit the instructors' ability to always use experiential processes is the learning style of the learners, as Peter explained:

One of the difficulties we have - but everybody's got it in different ways - is that we support corporate staff groups who tend, and a lot of these people are in accounting and law and things like that. They tend to have pretty linear, concrete learning style and they tend to think that's the right style and therefore it's difficult to get them into anything that's very experiential. (R16-Peter)

Experiential processes may be considered appropriate when instruction is intended to bring about the discovery and creation of meaning, however information and previously constructed knowledge must also be made available to the learners as building blocks. Respondents saw a need to supply information at times, as Faith explained above and Robert stressed that activity for activity's sake was pointless. So the instructional processes associated with this conception might better be classified as those that are appropriate for the learning goals with a preference for experiential processes.

In this case the external horizon is context dependent because as Eileen, Faith and Peter found, it is not always possible to use experiential processes. Therefore this component is limited by certain factors within the instructional situation such as content and learners. The internal horizon consists of the content which is the concept to be understood, the act of providing a concrete experience of the concept, and the instructor as facilitator.

HOW₃ component: Providing an environment for learning. Another way in which instruction takes place in this conception is by providing an environment for learning, which is the referential aspect of the third HOW of instruction and is apparent in the following descriptions of the instructors' function:

I'm partners with the people in my class, to make learning possible, not that I am pouring in the learning into their heads, so I'm creating an environment and kind of directing things, and keeping them on track, and helping to focus, and balance and draw people in who need that, and limiting people who need some, you know, boundaries, and uh, so keeping things on track, focused and in balance. (R5-Eileen)

I see my responsibility as providing the smorgasbord. Creating the environment where it's most conducive to training, minimal distractions, good structure and flow of concepts so that they make sense, they build on each other, clear answers to questions that people have, providing resources for them, setting up activities where they can actually discover for themselves, providing multiple sensory approach, not just telling, not just the hearing, but the seeing, the kinesthetic, the hands on, providing the structured, structured variations.... And providing review of concepts without labeling it review, putting activities in that force them to draw on their own learning. It's the set-up in the structure that I feel responsible for and managing the time so that we cover the material effectively. (R4-Donna)

It is evident from these quotations that the instructors' responsibility is more complex than the presentation of information of the Transmission Conception or the facilitation of instruction of the Enablement Conception. The creation of the kind of environment and the direction described here are seen as ways of providing optimal opportunities for learners to participate and learn. This component appears not to be limited to the workplace but would apply wherever these respondents taught, therefore the external horizon consists of all instructional

settings. The internal horizon is comprised of the instructor as facilitator, content in the form of information available from many sources, and the acts of leading discussion, structuring concepts, providing resources, managing time, and providing goal-oriented learning activities.

HOW₄ component: Modeling a way of being. A fourth HOW of instruction is modeling ways of being and is suggested by such statements as:

Well, I see facilitating as modeling.... And so as a facilitator, I'm modeling what I want them to be with kids, no matter what the content is. (R14-Nancy)

What I say to the groups is, "Now we're going to be going through a training process right here, and so as you experience it, you can sort of wear the hat of a participant and an observer, or have a content hat and a process hat..." And then I stop every once in a while and ask them, you know, "What have you seen happening? What has made it - what's made it easy for you to learn? What kind of things do you observe?"... So, I guess another way to say it is that I try and model the kinds of things that we are learning. (R17-Robert)

I think I'm able to model at least in the classroom, not in my whole life, 24 hours a day, but in the classroom, in that situation, I'm able to model the attitudes and the skills that I'm trying to convey. And that feels real good, and I think it's very, um - helps them learn. (R5-Eileen)

In the first two quotations, Nancy and Robert, who trained trainers, spoke of modeling ways of being instructors. In the second quotation, Robert also mentioned another important aspect of this HOW of instruction when he described a discussion with learners of how they experienced what he modeled. In the last quotation, Eileen spoke of modeling attitudes and skills of being a person with a healthy self-image, which was the content of her personal growth course. This appears to be somewhat different from the understanding in the Transmission Conception in which modeling is thought of as the demonstration of particular processes or skills.

Again, the respondents did not differentiate between the workplace and other instructional situations, therefore this component is not limited to the workplace and the external horizon is most instructional situations. The internal horizon consists of instructors showing by their actions a way of being, and the instructor and learners' acts of discussing how the learners experienced the instructor's actions.

HOW₅ component: Challenging learners. The referential aspect of the fifth and last way that instructors try to move learners to understanding is by challenging them to risk trying new actions. This was suggested by two respondents:

... First you have to create an atmosphere of trust and comfort, so that the people could then be willing to do the experiences.... And in the workplace... I don't feel like it's fair to push people to do anything too touchy-feely, but I try to, so you know, within some degree, I try to do that. But with - I don't want to make them too uncomfortable. I don't know, sometimes I think I need to get braver, and they'll learn more if I push harder, but so far I haven't pushed that hard. (R5-Eileen)

One of the tough ones, [beliefs] I think, is some of the binds sometimes about wanting the learning experience to be a positive one for people, and wanting them to feel good about it because I believe a little bit in classical conditioning so that they'll associate that experience with something positive depending upon if it's something they can use. And on the other hand, challenging them enough and pushing them enough so that they stretch and do something different, so that it isn't just a nice experience that doesn't leave them with anything. And that - maybe I'm back to the challenges. That's a tough one. I think you have to do both. And that's hard sometimes. So I guess that's a principle but I don't - you can't always - I think you're kind of walking a fine line, if it gets too uncomfortable they cut out on you.... When they say "Well, you didn't use adult learning principles" and what it means is "you've made me uncomfortable." That's, as I say, that's a hard one for us because I think I know, I sort have a visualization of I want to make people feel uncomfortable within a safe environment. Safe to fail, safe to try things, but not necessarily be comfortable. (R16-Peter)

This HOW of instruction presented a dilemma for both Eileen and Peter because, on the one hand, they believed that individuals are more cooperative when they were psychologically comfortable, and, on the other hand, they also believed that challenge promotes learning.

It might be questioned whether this component was applied to other instructional settings; however no differentiation was made, and in other parts of the interviews, these respondents applied their basic thinking about instruction to other instructional settings. Therefore, it can be assumed that the external horizon is made up of all instructional settings. The internal horizon consists of learners' comfort with learning activities and their willingness to cooperate with the instructor; the instructors' desire for learners to learn by trying new actions; and the instructors' act of balancing challenge and support.

The ways of attempting to move learners from a state of needing to learn certain content to their understanding of it are not mutually exclusive; any or all of them may occur in the same instructional situation. Providing an environment for learning is a comprehensive way of looking at instruction that could include all the rest. Identifying learning goals is a first step that emphasizes the partnership between instructor and learners. Modeling a process might be considered one way of providing an experience, especially when discussion of the experience is included, and involving learners in any experience may be a challenge for them. These different HOW's of instruction all point to an understanding that experiential processes are the primary ways for learners to discover meaning.

Learning Components

HOW₆ component: Discovering meaning. There are four HOW components referring to learning. The referential aspect of the first HOW is discovering meaning and was evident in many of the preceding quotations as well as in the following:

First they have to experience that's a possibility, the experience has to come first, from which they'll build the cognitive awareness, and then, I can give them some skills on top of that. (R5-Eileen)

*How would I describe learning?... How do you know when it's happened? (Pause)
You can feel it. You just, it's much more in you, it's not just in your head. Well, it*

depends on what you're talking about - the kind of learning of attitudes and personal habits, I mean, what I'm trying to teach... when I see that little light bulb go off,... Because all of a sudden they realize more what is involved. (R5-Eileen)

It's not till you do something together that you recognize what the components of a team really are. And then once you have kind of an "Ah-ha" experience, especially if it's with your own work group, then you can really define, not only what is teamwork, but what are the characteristics of the various constituents on a team. (R6-Faith)

But I think in teaching teachers especially, that becomes a real important area is letting the learner learn by experience, discover on their own, through their own, you know, gut wrenching process of realization, whether it's technical or philosophical, the learner has to grasp it. (R6-Faith).

Both Eileen and Faith viewed the nature of learning as the realization or understanding of the meaning of a concept, for example, the meaning of teamwork. Experiencing a concept is an initial step in the understanding of its meaning.

There is no evidence that respondents limited this way of viewing learning to the setting they were describing; in fact, many respondents brought their way of viewing instruction to the workplace from other settings. Therefore the external horizon can be assumed to be any learning situation. The internal horizon consists of the learners, a concrete experience, and the acts of experiencing a concept and of understanding its meaning.

HOW₇ component: Relating new concepts. One HOW of learning suggested in the data is relating new concepts to past experiences, and is found in the following statements:

I think adults do have experiences that you need to relate to. And even when they admit that they don't know a topic, they have had other kinds of experiences that are relevant and I think those have to be honored and acknowledged. I think one, because you lower resistance that way. And secondly because that can be incorporated into what they know. And I sort of do it sometimes like have these old time mail slots - they've got a bunch of mail boxes, ~~they've got a bunch of the slots filled, but you're trying to fill in some others, they have to relate it to their own structure.~~ (R16-Peter)

Different people learn different things, and I really hesitate to get it too structured, because there're people who have these ah-ha's, you know.... It was like this great light bulb - finally something connected. (R17-Robert)

In the first quotation, Peter compared an individual's cognitive structure to a framework of mail slots. Individual slots consist of existing knowledge about the topic; new information has to relate to existing knowledge to find a place in another slot. In the second quotation, Robert used the metaphor of a light bulb to represent the move from the step of relating a new concept ("connected") to the step of understanding. New concepts must be related to the learner's conceptual structure, and understanding takes place when the connection between new and existing information is made.

Because new concepts are related to life experiences, the external horizon of this component is the life world of the learners and is not limited to the context of the workplace. The internal horizon consists of learners with past experiences and knowledge, the acts of relating new concepts to past experiences, and of understanding the new concept.

HOW₆ component: Retrieving and applying new concepts. The referential aspect of the third HOW component is that learning is retrieving and applying learned concepts and can be seen in the following:

What I mean by learning is (Pause) coming, I think, coming to grips with, and recognizing something different than you did before. And what you do with what you recognize, I think is also part of learning, because putting it into action, the measure of acceptance of what that learning is about, whether we're trying to get somebody to buy into a concept or we just need to help someone explore, either way, whatever you put into action, is the next most important step. And I think activity learning is, and experiential learning, is really the most beneficial.... And maybe for one person, it's just recalling out of memory some things that they can bring up as skills that they might offer, and for another person, it's hearing something for the first time and going, "Wow!"... (R6-Faith)

Presentation of material always assumes that there's a presentation that moves directly into application, so... I always comment on how I see relationship, so if I ask a lot of questions, simple examples and questions, that I will give them, then I will ask them, "from experience when you do training, there's some typical questions that you may ask" ...they have to go to the board and write down two questions you would ask - or if you're going to do this, how would you use this technique in your training? It's always the transfer, the connection of what the theory is with the idea. So that's a - I can't get out of that habit - I don't see how you can get a - do good training without doing that.... (R17-Robert)

Learning as a process of relating new ideas to previously understood concepts and applying newfound knowledge in the work situation is similar to components of the other conceptions. However, rather than simply absorbing information to be retrieved and applied, engagement in experiential activities results in an understanding of the concepts which is what would be applied in practice.

Even though all the other learning components of this conception are not limited to learning in the workplace, it seems reasonable to assume that this component is limited to the job situation to which the training is directed. That appears to be the sense of the above quotations and differentiates this component from the next one. Therefore, the external horizon of this component is the job situation. The internal horizon consists of the learner with newly understood concepts or skills, the situation, and two acts - one of remembering what was learned, and two, of applying new concepts or skills.

HOW_o component: Applying new concepts in one's life world. The last HOW component of learning is unique to this conception and is another way in which application occurs. Its referential aspect is applying new concepts in one's life world. It is evident in such statements as:

My basic goal - my overall goal is to change the world definitely, bring peace on earth. Yeah, I'm real clear on that. Yeah, that is my goal, ultimately. (Laugh). Yeah, I mean literally, I am a peace-maker, yes. ... And how am I progressing? Well, yeah, a lot of it is, it's opening up blinders, helping people be more accepting of themselves and of each other, to feel more alive and excited and empowered, and therefore to be all they

can be, and I believe that, that it is human nature - my view of human nature is very optimistic.... (R5-Eileen)

The other thing that's probably the most important from a standpoint of what I do is I'm real committed to the topic.... I'm a real, committed to making a difference in the social fabric of our world and society and so I'm fortunate in that the topic that I train in is something that I strongly believe that is making a difference.... (R14-Nancy)

And I guess, but basically, it's a belief that learning and what learning and education's about is to help people do more than what they're able to do now, or empower them, or make them - what I feel is that it ought to help move people from a dependency to independency, and that's what any kind of learning process ought to be, so that I become less dependent on other people and am more able to do it myself. (R17-Robert)

In the first quotation, Eileen stated that her goal was to empower learners whom she taught so they would be able to communicate with others and eventually bring peace to the world. Nancy, too, hoped that her work of training teachers in substance abuse and AIDS prevention curricula would contribute to the betterment of society. And in the last quotation, Robert expressed his goal, which he believed to be the goal of all education, to help people become more self-sufficient as learners. These learning goals are broader than those of HOW₈ in which new learning is to be applied to the task at hand. They are also more far-reaching than the humanistic goals expressed in the Enablement Conception, because they are directed to the world beyond the immediate organization for which the instructor was training. The respondents appeared to have goals for society which impacted their thinking about instruction and learning, revealing glimpses of a personal teaching philosophy that is not evident in the other conceptions.

The external horizon is the life world of the learners, because this component is clearly not limited to the context of the workplace. The internal horizon is comprised of the newly learned skills or concepts, learners as agents of change, life and work situations beyond the immediate task, and the ability to relate newly learned knowledge to various situations.

These different ways of achieving and applying understanding provide a more complete picture of how learning is understood in this conception. First of all, a concept is experienced; the experience is related to past experiences and knowledge; then a realization of the meaning of the concept occurs. The learning outcome is that new concepts and skills are retrieved from the learner's conceptual structure, then used in the job situation and beyond it in the learner's life world.

Other Indicators of the Constructive Conception

Other indicators of this conception are the respondents thinking about knowledge and the context.

Knowledge. In the Constructive Conception, knowledge is thought to be discovered, constructed and construed, to be available from multiple sources, and to be contextual. That knowledge could be constructed suggests a process rather than the object implied by the pre-defined body of information of the other conceptions. Most of the respondents spoke of the learning process as one of discovery reflecting an assumption that the knowledge to be discovered already existed. However, the following two examples reveal an understanding of knowledge as being constructed and construed by the learners:

We do an activity on the very - it's the very last activity that we do in a five-day training with trainers, and that's we give each small group a statement that they have just been - either a statement or a question that somebody from the audience has just given them, either in a presentation they've done or training. And it's a difficult question. It's either a - you know, somebody who's unhappy or it's somebody who isn't very motivated, and then, they have to put their heads together and decide how would they respond. And these are all questions we've gotten over the years from people, that we feel are the most difficult and that we've had to respond to on our feet. And then they have to answer - and we, then play the role of that person in the audience. And so they, then select a spokesperson and they come back with the information. And what they do is, they utilize all of the information that they - the question forces them to utilize all the information that they've learned. (R14-Nancy)

I am a perennial student in my own way. I absorb a lot of information and digest and it's just almost like playing games, some people do crossword puzzles and some people do other things. ...I put pieces together in a puzzle and spit them back out again and say "what will it look like if we do that to it?" It's like a little experiment, so it's playfulness, and I don't know that I'm particularly doing anything unique or new with the information, so I don't consider it total creativity on my part, though someone else might disagree with me. But ...it's reconfiguring information, and trying to do it in a form that different people will be able to recognize. And not everybody recognizes it. (R12-Lois)

I do a workshop in a couple of weeks with [Company X] Computer Services and this is an example of what I was telling you about earlier about always having to - realizing that you don't have to be the teacher, and I came off this exercise of one-sentence problem situations,...and about eight or ten people who had very strong answers and we talked about those things. We went for three or four hours. It was amazing, and they loved it. They said it was the best part of the workshop. They loved it. They loved hearing what other people had to say and learning from their different approaches to things. It was amazing - it was like, what a simple way - you know - to get the point across, ...We had already talked about the other conceptual stuff,...so this was an example of applying that material. And they were then drawing upon all the stuff we were talking about as well as their own experiences to problem solve. (R17-Robert)

In the first quotation, Nancy described an activity done at the end of her training program in which the learners jointly "built" knowledge. This activity required more than an exact repetition of information learned during the program, implying that although information is part of knowledge, it must be interpreted and applied in appropriate ways. In the second quotation, Lois described how she handled information when she was learning. Although she spoke of learning as absorbing information, reconfiguring it suggested a constructive understanding. And in the third quotation, Robert gave an example that illustrated the construction of knowledge with learners drawing on themselves as resources.

Not only is knowledge to be constructed and construed, it is available from many sources as is evident from the following comments:

...What I see in a lot of teaching, is what it really is, is taking a lot of information and synthesizing that and deciding how it can be presented in as easy a way as possible. So it's like a, almost like a - if you've ever seen a wool machine? In fact I was in Wales in October and we went to this little wool factory. There's this big machine and it would take, let's say all the wool, the raw wool, or it might be dyed at this point in time, and they put it into this big machine and it fluffs up and it takes out all which would be

garbage, let's say, information, or the threads that were in the sheep and then eventually, it fluffs it up and then it puts it out on like racks that were on the other side, and they begin to tear it apart and make it into single threads and eventually it goes along and into the production line and it came out as a single thread, eventually, all the way down the line. So I guess I'd have to say that could be a metaphor for training from the standpoint that what feels like my job involves a lot of synthesizing information when I'm doing the research and I'm pulling let's say from a couple books and a bunch of articles I've read, and what I've heard people say, or maybe a consultant has come in and has done shadow consulting, and then I take that and then I try to determine, ok, what use is all this information to a manager. How do we get this down into some - a set of skills that I can impart to them that will help them do their job better. So that's my metaphor. (R22-Yvonne)

And I learned as a language therapist, that first the child has to have the concept and they learn that through experience, so it was when I worked with little children and really seeing, how do you teach a child to say "more" - you know, the first word I would choose to teach any kid who can't talk - "more!" - very powerful word. And first they have to experience that's a possibility, the experience has to come first, from which they'll build the cognitive awareness, and then, I can give them some skills on top of that. So I guess it was my strong experience with all of that and working with developmentally disabled and brain-damaged, and all kinds of very tough-to-teach candidates. And if I found ways that worked with them, I could find ways that worked.... (R5-Eileen)

Also I'm more realistic about what I expect out of myself, too. I don't assume all the responsibility for what happens in that room. And I set that up at the beginning, that it's a group thing, that we're all resources. (R4-Donna)

In the first quotation, Yvonne explained how she constructed knowledge by consulting sources such as literature and other consultants, then spun her own thread of knowledge that was not an exact repetition of any one source but her unique interpretation. She then merged the knowledge she constructed with what she knew of the managers' situations so as to develop a training program. In the second quotation, Eileen identified her prior experience as a speech pathologist as a source of her belief in experiential instructional processes. Donna suggested in the last quotation that learners as well as instructors are resources for learning. Sources of knowledge are anything or anyone that can assist in the attainment of learning goals.

In this conception the context is a factor in determining the validity of knowledge. Experience and knowledge, whether the instructors' or the learners' are neither wholly right nor wrong. Perspectives and understandings are seen as contextual resulting in consequences within one organization that might not be true in another situation. This was apparent in the following quotations:

.... Part of the problem is that some of us have learned some things that probably aren't very helpful, that it's not a matter of you're a bad person, but you may have acquired some behaviors or some ideas that don't really fit in with this." Or in some cases I might point out that "the ideas that some of you are sharing I think are valid, but they fit one kind of model and the model that I see the company trying to move towards... is different. And you have to leave some of those behind, and so I'm not saying that is bad idea, but it's not going to get you where you want to go. And if you want to move in this direction which I've heard you say as a group or as a company, then some of those behaviors you have to drop off behind." And it's difficult because you contribute that experience, and you can get into an argument with somebody and start banging heads and don't get anywhere.... I try to be fairly explicit about saying, "I hear what you're saying, I understand that." Sometimes I might say, "I don't happen to agree with that and I'm not going to tell you you're wrong because I can't. I think that's going to cause you problems or I think that's not going to get you where you want to go. And if you choose to continue that, that's fine, I mean, I can't change that, but I would seriously question it. You're the one who has to do it and take the risks and so forth. So with some people I try to be real clear about it. (R16-Peter)

Well, I don't know if it's that so much as redefining someone's expectations and mindset about how they're supposed to perform in the particular environment. There's a definite different mindset, from people who are management classification employees, versus union representative employees. Neither of them is good or bad, but they're different. (R12-Lois)

In the first quotation Peter responded to the question of whether learners' experiences were always helpful. He viewed experiences and knowledge as contextual, meaning that something that is acceptable in one context might not be in another. The second quotation followed a conversation about a manager who had asked Lois to provide training for team building. The interviewer suggested that perhaps conflict management was needed instead. Lois expressed her belief that not only do concepts take on different meanings in different organizations, but even in the same organization for different staff roles.

Although an indepth analysis of the respondents' understanding of knowledge is not possible from the data, some evidence exists to show that they thought it is constructed and construed rather than received, is available from many sources, and that meaning is partially dependent on the context.

Context. Respondents with the Constructive Conception as their predominant understanding of instruction related to the context in two different ways: some of them were internal consultants who worked within one organization, and the rest were external consultants who contracted to train in a variety of organizations. The internal consultants worked for a bank, a law firm, a large manufacturing firm, a hospital and research center, and a public utility; the external consultants described courses taught for a large city, a municipal transportation system, a health education consulting firm, and a volunteer agency.

The structure of these organizations was seldom clearly described, however there was some evidence of mostly collaborative and democratic cultures. This was particularly apparent in Yvonne's description of the hospital and research center for which she worked:

So we decided that what we wanted to have this be [training program on change] is not only a place where folks could learn how to plan change more proactively, but also a vehicle where some discussion would begin. And some recognition of the fact that as you are growing, if you want to maintain a culture that's non-bureaucratic and is entrepreneurial which is what you have to try to maintain. And this is Yvonne talking, not concepts I've heard. I guess the way I phrase it is you want to maintain that non-bureaucratic, entrepreneurial type of organization, but as you grow that gets tougher and tougher. So you have to plan for that. So that was part of my hope, is that folks would begin to talk about the changes and say, "Oh yeah, we don't have to be victims to this, we can plan for how to keep structures in place with as little bureaucracy as possible, but you do have to plan for that. It's almost an oxymoron, that you have to plan for the non-bureaucracy. So that was part of my hope, that folks would actually begin to talk about that. (R22-Yvonne)

The organization was described as entrepreneurial, and in subsequent parts of the interview, Yvonne gave examples of open communication and voluntary attendance policies, as well as

the inclusion of persons of all positions from administrative assistant to division heads in the same training program.

There were other indications of collaborative and democratic cultures. For example, both Peter and Donna said that training was decentralized, so that responsibility for training was delegated throughout the organizations. In the bank in which she worked, Donna showed that the executive leaders were willing to listen to and act on suggestions of staff members:

We have, in the programs we have also in place - a process by which the information, the data that is collected can be fed back to senior management,... with the intent, then that will give management a window in, what the grassroots management of the company see as needs, or what can we do to make our company better. And happily, a lot of the ideas, have been implemented. (R4-Donna)

Collaboration was evident in these organizations in such policies as open communication, voluntary attendance at training sessions, and the solicitation of input from employees.

What distinguishes thinking about the context in this conception from the other conceptions was that respondents thematized the context as affecting their ability to train. It may be recalled that in the other conceptions, respondents' views about the relation of context to training was often inferred because even when the respondents described the context either positively or negatively, they denied a direct relationship with their instructional practice.

Unclear communication and a lack of information and support were cited as negative factors affecting training as can be seen in these examples:

Another thing that happens with the organization is this organization would like to think is that there are sometimes we get ourselves stuck in leadership roles not in terms of leading education, but we're trying to push through education something that should have been taken care of by leaders saying this is the way it's going to be. It's like we need to help people and say a vice president or somebody will say we need to help people understand this is their role in whatever it is. It could be a very short thing, like the vice president saying to his people, "This is going to be your role," and instead they

want to do it through education, so I think education is sometimes a vehicle used inappropriately. I'll try to help people carry out that role successfully, is a different story. So there are some things mixed up in there. (R16-Peter)

.... We were frustrated all the time, I think, we - everybody in the whole thing - was frustrated all the time because we never really received good information about the actual task that the bus drivers were going to do. The underground tunnel was in a startup situation, so we were training for something that we really weren't real sure what was going to turn out. And that fact came - that was all the way to the wire - I mean we didn't really know very much about it. (R10-Jeanne)

Interviewer: How did the organization affect your ability to instruct?

Respondent: (Pause) It was extremely - what is the word - did not assist me - what is the word for not assistance. I think that the fellows who were running that training program had pretty much done everything by the seat of their pants. They didn't think that I needed as much time as I took, they didn't think I needed the stuff that I needed, and so it was pretty much, anything I wanted to do was suspect in a way. (R10-Jeanne)

In the first quotation Peter gave an example of what he viewed as the inappropriate use of the training department. As a result of lack of clarity regarding the source of organizational changes, employees' negative reactions to change were focused on the instructor whose role was only to help them implement their roles, instead of focusing on the leaders who initiated the change. The next two quotations illustrate Jeanne's extreme frustration with the lack of sufficient information and support in the context where she trained. In the first place, she was training trainers for a procedure which had never been done before - training transit operators to drive buses in an underground tunnel. She also cited other evidence of non-support such as not being able to obtain approval to use computer simulations for training, so that she viewed the organization as a hindrance to her ability to instruct.

Other respondents identified contextual factors such as environmental limitations and learning styles which they believed to affect their ability to instruct experientially:

Respondent: First of all, what does an office organization, an office culture need to be comfortable in orientation? And what does an office culture tolerate? Because I worked for Outward Bound, which is a national outdoor based training model, and I had worked with a lot of professional people in an outdoor medium. So of course when you go into the outdoor medium but you're used to working indoors, it's sort of like, the literal walls are removed, so there is not as much limitation, but when you're used to being in an indoor environment and you need to do the training indoors, there are already built-in walls, and I had to find out a lot more about what the mental walls are around that, because I had worked with the same kind of clientele, but in a place where the walls were gone. I thought, that's something I have to really look at. What kind of limits do people have....

Interviewer: Now these limits, then, that you found, how did the limits that you found affect what you were able to do in the training? Did you find limits?

Respondent: I did. And the kinds of limits that I found basically, I think, were the physical limitations that people feel when they have to sit at a desk, and they have to put their suit on and be the person that they are at work. (R6-Faith)

As far as teaching styles, we don't get any official edicts that tell us we have to do certain things. One of the difficulties we have - but everybody's got it in different ways - is that we support corporate staff groups who tend, and a lot of these people are in accounting and law and things like that. They tend to have pretty linear, concrete learning style and they tend to think that's the right style and therefore it's difficult to get them into anything that's very experiential. (R16-Peter)

The first quotation illustrates Faith's speculation that organizations might present both physical and mental limitations to instructors so that it was important to discover what the limitations were. In the second quotation, Peter described a type of learning style that he saw as a barrier to experiential instruction.

External consultants explained that they often had to adjust to the culture of organizations in which they trained, as was apparent in the following comments:

... If I work with the training people, they're great - they're really good to work with. When you don't work with training people, it's harder, because they don't quite have the same understanding or awareness - and sometimes I think they have unrealistic expectations and I try real hard to work with that. But usually, I think usually we're able to work it out, and I often get them to change what they had in mind because, you know, because they haven't thought it through. And I do find the longer I'm in this, the more I realize I need to take a very active role. I cannot - maybe when I started, they'd call and I'd say "well this is what I want," and I'd think they'd really know and I try and do it, but now I know, "wait a second, let me help you think this through," because

that's what I do, that's my job, and you may not really have a real good plan in mind here. So I see myself as a partner with them in developing all I do. (R5-Eileen)

Interviewer: Now do you always have the same approach to instruction no matter what the content is or the objectives or does it change?

Respondent: Well, I adjust it. I'm more directive sometimes, what I'm trying to do at [Company X] is much more directive as opposed to facilitating discussion. It was a given type of format, so I have to accept it, present it differently from what I would do normally. Yeah, I would - I adjust - I don't go from, you know, four hours of lecture with one group to nothing at all - it's pretty consistent. I remind myself to adjust myself in the course of the lecture. With some groups I back off at - but I don't have a whole bunch of different styles, so I usually do discussion and problem solving....

Presentation of material always assumes that there's a presentation that moves directly into application, so... I don't see how you can get a - do good training without doing that.... (R17-Robert)

In the first quotation, Eileen explained that people who oversaw training in organizations did not always understand the amount of time that was necessary to implement an effective program, therefore she worked with them to design training programs. This outlook was consistent with her belief in a partnership relationship between instructor and learners. In the second quotation, Robert described how he had to adapt his style to the demands of one organization, and yet not deviate greatly from his basic approach to instructing which was to involve the learners by engaging them in problem solving and the application of new learning to their work. In this conception, there is clearly a perception that contextual factors, such as communication, attitudes and styles of management and staff, and the physical environment affect the instructor's ability to teach effectively.

In summary, instruction in the Constructive Conception is about sharing responsibility for the discovery and construction of meaning in partnership with learners. Understanding and meaning are most effectively discovered through processes that provide as close an experience of the concept to be understood as possible. Factors within the context in which ~~instruction takes place impact the instructor's ability to teach so that it is important to~~ negotiate for the best possible conditions. The varied components of instruction are

identifying learning goals with the learners, providing an optimal environment for learning including appropriate experiences, modeling a way of being, and challenging the learners to try new ways of acting. Learning processes consist of experiencing a concept, relating new concepts to past experiences, and retrieving and applying new concepts in the workplace as well as in one's life world. Most of these beliefs about instruction are not delimited by the workplace but can apply in any instructional setting.

Comparison of the Conceptions

This study began with a conceptual framework depicting six elements that are assumed to comprise an instructional situation. These elements are the instructor, content, processes, learners, learning and context. Although different elements emerged from the data with varying degrees of emphasis, all of them were touched on, however briefly, in the preceding analysis. By way of summary and comparison, Table 6 illustrates the meaning attributed to each element in the different conceptions of instruction.

In Table 6, the referential meaning of each conception follows the title of the conception. The six elements of instruction are briefly characterized according to the conception, with the starred one being the element of focus. A more complete explanation of the elements in relation to the conceptions is contained in the preceding data analysis. In this section, certain aspects of the three conceptions will be compared and contrasted, focusing on four themes - knowledge, learning, meaning and connectedness. Two of the six elements of instruction emerged from the data as more important for the construction of the conceptions. Knowledge (which comprises the content) emerged as a unifying element in each conception, and characteristic ways of viewing learning seemed to parallel the different understandings of instruction. In addition, a two-way division appeared among the

conceptions, with the Transmission and Enablement Conceptions on one side and the Constructive Conception on the other. This division was about meaning and connectedness.

Table 6

Comparison of Elements of Instruction

	Instructor	Content (Knowledge)	Processes	Learners	Learning	Context
<u>Transmission Conception - imparting information</u>	Content expert	*Pre-defined body of information	Presentation	Receivers	Receiving & applying	Taken for granted
<u>Enablement Conception - facilitating sharing</u>	Process facilitator; "non-expert"	Common sense	Discussion	*Experts; participants	Applying	Taken for granted
<u>Constructive Conception - sharing responsibility for constructing meaning</u>	Partner with learners	Constructed & construed	Experiential	Partners with instructor	*Constructing meaning	Impacts instruction

Knowledge

Knowledge arose from the data as an important aspect of the respondents' understandings of instruction in that assumptions about it appear to be the thread holding the elements of instruction together to produce the conception. First, the similarities and differences of how knowledge is viewed in the conceptions will be discussed, then as similarities and differences among the other elements of instruction are discussed, it will be shown how each is related to the understanding of knowledge.

In the Transmission and Enablement conceptions knowledge is viewed somewhat similarly. In both, it is a stable object - a body of information - to be passed from one source to another. In the Transmission Conception, it is predefined by persons recognized as

experts, particularly the instructor, who acquires it from such external sources as literature, vendor packages, or the organization. In the Enablement Conception, knowledge is still an object to be given to others, though perhaps a little more flexible because the source of knowledge is the learners themselves who have acquired it through experience and are themselves experts. This understanding of knowledge is quite different from the Constructive Conception in which it is seen more as a dynamic process than as a stable object. This is not to say that knowledge in the form of information is not necessary for the instructional process in the Constructive Conception, just that it is to be discovered, built upon and interpreted, rather than passed around seemingly intact. It can be derived from a variety of sources - learners, instructor, and/or outside sources. The other important difference in understanding knowledge is the way it is judged to be authentic. In the Transmission Conception, knowledge is valid because it comes from experts; in the Enablement Conception, knowledge that is relevant to the learners' needs is valid; and in the Constructive Conception, the validity of knowledge depends on its context so that an interpretation of a concept that is acceptable in one situation might not be in another.

Perceptions of the instructor's role, function, and responsibility follow logically on the understanding of knowledge in each conception. In the Transmission Conception, instructors are content experts who present authentic information to the learners, and who are responsible to maintain their content expertise as well as to do all they can to assure that learning of the predefined content occurs. In the Enablement Conception, instructors are facilitators who lead the process of sharing information among the learners. Because their primary function is not to present information, they are not responsible to be content experts, but do need group process skills. On the surface, it might appear that in the Constructive Conception, instructors are viewed like those in the Enablement Conception, and indeed, some aspects of both the Transmission and Enablement Conception are present. Like

instructors in the Enablement Conception, they are seen as facilitators; and like instructors in the Transmission Conception, they at times are viewed as models. However, providing a multi-faceted environment for learning and facilitating the discovery and construction of meaning are more complex activities than assisting in the sharing and application of information in discussions that is the instructor's function in the Enablement Conception. In the Constructive Conception, modeling means showing learners a way of being, for example, an effective instructor or a caring person rather than demonstrating specific skills, as suggested in the Transmission Conception. Also, the instructors' expertise is not deemphasized as it is in the Enablement Conception, but is utilized as a source of knowledge along with expertise brought by the learners. Neither is the instructor's responsibility for leading the learners in the attainment of learning goals abrogated.

Because interactive processes were frequently cited as being preferred by most of the respondents, it might appear that instructional processes are similar in all the conceptions. However, participation and interaction have different meanings in each conception. For example, in the Transmission Conception, in which knowledge is seen as a predefined body of information, in addition to presentation, the interactive activities appear to be exercises with predetermined responses designed by the instructor to give learners practice in certain skills. In the Enablement Conception, in which knowledge resides in the learners, interactive processes primarily consist of the discussion and application of the ideas and practices of the participants. And in the Constructive Conception, in which knowledge is the construction of meaning, only activities that are appropriate for instructional goals are to be used with a preference for those providing a direct experience of the concepts to be learned so that their meaning can be understood.

The way learners are viewed in the different conceptions is also consistent with the understanding of knowledge exhibited. In the Transmission Conception in which knowledge

is a static object to be passed on, learners are viewed as receivers, customers, and non-experts. The needs to be considered are the learning needs of the learners, in other words, their ability to receive the content as defined by the instructors who know what knowledge the learners need. In the Enablement Conception, in which knowledge resides in the learners who are helped to share it, they are seen as participants and experts whose needs for knowledge influence and even determine the content of instructional programs. In the Constructive Conception, in which knowledge is discovered and constructed from many sources, learners are partners with the instructor and each other, because all have some knowledge to share and together will interpret that knowledge to construct new meaning. Learners needs for knowledge are to be considered in the development of instructional programs, but so are the organization's needs for employees to learn certain concepts or skills, so that content is negotiated among all these needs.

Learning

Learning emerged as an important element in the understandings of instruction although in the Transmission and Enablement Conceptions, it was not usually thematized by the respondents unless introduced by the interviewer. In other words, it was not put forth as part of their understandings of instruction, but appeared to be taken for granted. At the same time, some of the HOW components in each conception are more clearly about learning than about teaching. In the Constructive Conception it is thematized as a defining element of the conception, that is, when respondents spoke of instruction, it was as involving learners in the discovery of meaning - the definition of learning in this conception. In the Constructive Conception, the respondents described learning at greater length and in more depth than in the other conceptions.

In the learning components, there are two similarities throughout all the conceptions. In the first place, relating new information or concepts to prior knowledge and experience are components of all the conceptions. There are some differences, however, in the internal horizons. In the Transmission Conception, only the act of relating the information is mentioned. In the Enablement Conception, it is suggested that the new information will not always be compatible with existing knowledge, so it may have to be challenged. This step of challenging the new information is not mentioned in the Constructive Conception, but understanding as a result of experiencing a concept and relating it to prior knowledge is present. However, these are minor differences that might not have been obvious if respondents' thinking about learning had been probed in greater depth.

A more important way in which the conceptions are similar is in the application component of learning. All the conceptions have a HOW component in which new information or understanding is applied. The internal horizon of the application component is interpreted in the same way: learners with the ability to use newly learned information. In all the conceptions, application is delimited by the context of the job situation. This could be construed as the essential component of instruction in the workplace settings of this study, that learners should be able to use what is learned where they work.

Meaning

The division of meaning between the Transmission and Enablement Conceptions on one side, and the Constructive Conception on the other is similar to the two major divisions in Beatty et al.'s (1990) conceptions of learning. In the Transmission and Enablement Conceptions, knowledge is perceived as information that the learners are supposed to acquire and apply in their jobs, even though the ways they are to acquire the information differ. In the first instance, the instructor delivers it to the learners, and in the second

instance, the learners give it to each other. There is little overt evidence that the learners are to understand and give meaning to the information, even though understanding may be implied by the acts of relating new information to prior knowledge and applying it on the job (present in both conceptions), and by the belief in the Enablement Conception that knowledge is common sense derived from practical experience. The act of relating concepts to one another is a cognitive process involved in understanding; to know how and when to apply concepts and skills assumes an understanding of them; and to derive knowledge from experience is an act of understanding. However, these acts as ways in which learners make sense of and understand concepts appear to be taken for granted in the Transmission and Enablement Conceptions, whereas in the Constructive Conception, understanding is the result of finding meaning in educational experiences. In that conception, everything - the HOWS of instruction and the way learning is understood - is directed toward the discovery of meaning.

Connectedness

Another characteristic of the division between the Transmission and Enablement Conceptions on one hand and the Constructive Conception on the other is connectedness. (This is similar to a distinction that Belenky et al. [1986] made in their discussion of procedural knowledge.) In the first two conceptions, there seems to be a separation of instructor from learners. The instructor is either an expert and the learners are not, or the instructor is not the expert and the learners are. In the Transmission Conception, the only connection between instructor and learners is when the latter presents information and the learners receive it. In the Enablement Conception, the connection is made when the instructor assists the learners to share ideas among themselves. Even if instructors have some content knowledge, they withhold it from the learners or give it in the form of an opinion

that is on the same level as the learners' opinions so it does not appear that the instructors have set themselves above the learners as authorities presenting their expertise.

By contrast, in the Constructive Conception, there is a connection between instructor and learners from the very beginning when they negotiate learning goals. Then in the course of instruction, the instructor attempts to "enter into each student's perspectives" (Belenky et al., 1986, p. 227) so that they become partners in the effort to discover meaning. However, this partnership does not abrogate instructors' responsibility for expertise nor does it deny either instructors' content knowledge or their process knowledge. At the same time, they assume that learners have knowledge and experiences that can be valuable resources for learning, so that the responsibility for both instruction and learning are shared by instructor and learners.

The structural analysis of Beaty et al. (1990) is a useful tool for the comparison of conceptions. By examining likenesses and differences in the external and internal horizons of the various HOW components of the conceptions, it can be seen that (a) meaning as the goal of instruction separated the Transmission and Enablement Conceptions on one hand from the Constructive Conception on the other, (b) the application of learning is an essential element of instruction in the workplace, and (c) the Transmission and Enablement Conceptions differ from the Constructive Conception in connectedness between instructor and learners.

Summary

In this chapter, three conceptions of instruction that were derived from the interview data of this research study were described. These conceptions were identified as the Transmission Conception, the Enablement Conception, and the Constructive Conception. In the first place, an overview of each conception was presented with sample quotations. Then each conception was analyzed for its referential and structural aspects including substan-

tiating excerpts from the interviews. Finally, based on a work by Beaty, Dall'Alba & Marton (1990), the conceptions of instruction found in this study were contrasted and compared. In all the conceptions, thinking about learning is related to the understanding of instruction although instruction is not assumed to be the cause of learning. A component of learning is similar in all three conceptions, namely the application of newly learned knowledge in the job situation. This suggests that application of knowledge on the job is an essential component of instruction in the workplace. The differences among conceptions is most striking in the division between the Transmission and Enablement Conceptions on the one hand, and the Constructive Conception on the other. The division is related to meaning to which all elements of the Constructive Conception are directed, and to connectedness between the instructor and learners. In the next chapter, the findings will be related to the literature reviewed for this study and the conceptual framework that began this study will be presented in a revised form based on the data of the study.

CHAPTER V

DISCUSSION OF THE FINDINGS

In this chapter, the findings of the research study will be compared with the literature reviewed in Chapter Two, then the conceptual framework, as it has been revised according to the data, will be presented.

Comparison of Findings to the Literature

Rather than analyzing all the literature in comparison with the findings, several relevant themes, such as facilitation, the assumption that adults learn differently from children, and guidelines for teaching adults will be examined. Then research studies related to conceptions of teaching adults will be compared with the findings. Finally, it will be explained how pertinent work on knowledge and learning, consulted after the data were collected, was used in the analysis.

A theme that was explored in Chapter One and also emerged in the data was that of facilitation. However, it did not always have the same meaning in the data as in the literature. It was identified by Brookfield (1989) as a more desirable role than that of teacher for instructors of adults based on an assumption that such instructors are peers of the learners; therefore, their roles should be interchangeable. In the Enablement Conception, instructors are identified as facilitators as a rejection of the teaching role rather than a sharing of it, and they appear to be considered inferior in content knowledge to the learners. However, in the Constructive Conception, when instructors are identified as facilitators, it is in the sense suggested in the literature: as equals of the learners with responsibility for instruction and learning shared among instructor and learners.

Guidelines for Teaching Adults

In Chapter Two, the literature on teaching adults was divided into two main categories, guidelines for teaching adults, and research studies. The guidelines for teaching adults were, for the most part, derived from learning principles and theory, so are consequently psychological. Most of the recommendations are reflected in the conceptions of instruction found in this study. For example, (a) that content should be meaningful and organized is found in the Constructive Conception, (b) that skills should be practiced for learning to occur is evident in the Transmission Conception, (c) that learners' experiences should be the main resources for learning is apparent in the Enablement Conception, (d) that learners' perceptions should be challenged for learning to occur is found in the Constructive Conception, and (e) in all conceptions, that learners are to be actively involved in the learning process.

Underlying these recommendations as well as much of the research on teaching adults are assumptions that adults learned differently from children resulting in a general recommendation that adults should be taught differently from children. These assumptions, popularly codified under the term andragogy, were examined at some length in Chapter Two. In the study being reported, the respondents' understanding of the general recommendation that adults should be taught differently from children was investigated, resulting in interpretations that varied for each conception. It was apparent that most respondents, regardless of their understanding of instruction, were aware of the recommendation.

The two characteristics that are believed to differentiate adults from children in the Transmission and Enablement Conceptions are early negative educational experiences and general life experiences. The negative educational experiences are seen as stifling creativity making it difficult for adults to apply new concepts, and as setting up motivational barriers to learning because adults compare training to school. Adults' life experiences are seen as

resources they want to share, as the source of existing knowledge with which new information is to be integrated, and as a source of expertise making it unnecessary to learn anything new. In these two conceptions, guidelines derived from these assumptions are that (a) application of concepts should be elicited from other learners so the source of such applications is not only the instructor, (b) adults should be told the benefit and purpose of training, and (c) adults should be invited to share their experiences. However, it is clear that all these practices could be applied when teaching individuals of any age as long as the practices are adapted to the learners' meaning structures.

Even though these types of assumptions were presented as differentiating adults from children, the respondents did not seem able to draw consistent conclusions regarding the teaching of children. For example, the respondent who said that adults should be told the purpose of training was asked whether children should also be told the purpose of what they were being taught. Because he had already stated his belief that adults should be taught differently from children, it could have been assumed that he would have thought that teachers need not tell children the purpose of their lessons. However, he responded that children should be told the purpose. This ambiguous thinking may be the result of respondents espousing an admonition found in adult education literature even when it is not congruent with their instructional experience. Such an espoused guideline provides an example of knowledge being viewed as having been derived from external, authoritative sources. This argument is congruent with the epistemology evident in the Transmission Conception, but can be questioned in the Enablement Conception. However, the knowledge being discussed is not the knowledge that was a component of the content being taught (which in the Enablement Conception was seen as internal to the learners), but respondents' professional knowledge. It is possible that they viewed knowledge that was a component of the content differently than they viewed their professional knowledge. Respondents who

espoused the assumption that adults learn differently from children and should be taught differently probably did so because it was present in sources they regarded as authoritative.

By contrast, in the Constructive Conception adults are not assumed to learn differently from children. It is assumed that human beings of any age have life experiences which are part of their self-identity and from which knowledge is derived. It is also assumed in this conception that all experiences are not necessarily helpful for learning. The corresponding principles of practice are that learners' experiences should be recognized and respected by instructors, and that learners should be helped to relate new knowledge to their experiences. These guidelines are important in any instructional situation regardless of the age of the learners.

Although the respondents in the Constructive Conception were aware of literature on differences between adults and children, they were selective in what elements of that literature they espoused. Their judgement revealed an underlying assumption that knowledge is not to be accepted unquestioningly from external sources, but to be examined for consistency with one's prior knowledge and experiences, then modified to become assimilated within one's conceptual structure.

Certain conditions among learners appear to be attributed to their adulthood rather than to other factors such as their early education or to their life experience. If adulthood were set aside as the source of differences among learners and other contributing factors examined, corresponding principles of practice could be derived and applied in any instructional situation when appropriate. At the same time the factors that do seem to be relevant for teaching and learning can be addressed rather than focusing on learners' adulthood, which is a factor that cannot be changed.

The other assumptions about adults that form the basis of andragogy as put forth by Knowles (1980), were not explicitly found in the data for this study, although some of Knowles'

instructional guidelines are present, particularly in the Constructive Conception. Instructor and learners are viewed as partners in the instructional process, both responsible for instruction and learning; and experiential processes are viewed as the most effective type for constructing meaning. However, because adults are not assumed to learn differently in the Constructive Conception, such guidelines can also be applied in instructional situations involving children.

Research on Teaching Adults

Much of the research on teaching adults was based on the assumption that has just been discussed, that is that adults learn differently from children and should be taught differently. Many of the studies investigated either the teaching behavior of instructors or instructors' perceptions. In the latter studies, collaborative, learner-centered understandings of instruction were preferred. The research study being reported in this dissertation did not investigate behavior and did not assume that any understanding of instruction was preferred, so the findings of many of the reviewed studies are not relevant to the findings of this study. However, the studies that explored instructors' ways of understanding their teaching experiences are similar to this study, so the findings of the most applicable ones will be compared with the ones presented in this dissertation.

Conceptions of the Professional World of Teachers of Adults

Larsson's (1983a, 1983b, 1986) study of conceptions of teaching of teachers of adults has some similarities to this study of conceptions of instruction in the workplace; however, the analysis of the data differed. From his data, he derived two conceptions of teaching: (a) content should be presented and structured for the students, and (b) students should be involved in interpreting and structuring the material to be learned. The first conception is

similar to the Transmission Conception, and the second one, in some ways to the Enablement Conception, and in other ways to the Constructive Conception. However, Larsson's conceptions focused only on the content element of instruction, whereas in conceptions of instruction in the workplace, content is one of six interrelated elements of instruction. The contexts for the two studies were also different in that Larsson's study was done in the Swedish adult education system which is presumed to be a formal system, whereas this study was done in multiple informal settings. Larsson's analysis also preserved the dichotomy of two approaches to teaching adults, a teacher-centered approach and a learner-centered approach found in other research on teaching adults, whereas this research found three conceptions of instruction.

The relationship of Larsson's second conception to the Enablement and Constructive Conceptions can only be conjectured. His interpretation that his second conception is a manifestation of weak teacher control appears to resemble the Enablement Conception in which content is determined largely by the needs and wants of the learners. If, however, involving the students in Larsson's study means a joint negotiation of goals and content, his second conception is more like the Constructive Conception. The conflict that Larsson described in teachers holding the second conception who felt they could not teach as they thought best because of the desires of the students for more teacher control was not apparent in this data. However, it may be suggested in the Enablement Conception in which learners are considered to have expertise and the instructor is thought of as being without content knowledge. More investigation would be necessary to determine if there is a correlation.

Larsson's subsequent analysis of his data which resulted in five conceptions of the way teachers use students' experiences in class, and four conceptions of the skill development of teachers over time is only marginally related to the data being reported here.

Isolated examples of his different conceptions of experience could be found in these data, but it was not the intention of this study to investigate such understandings. However, future analysis might be fruitful because the learners' experience emerged as an important factor in the Enablement and Constructive Conceptions. In like manner, it may be useful at some future time to examine these data for ways of understanding skill development because the respondents were asked how their thinking about teaching had changed over the years. However, this was not the focus of the study and no clear pattern relating to these issues was found in the three conceptions of instruction.

Conceptions of Teaching in Various Cultures

Other research that examined conceptions of teaching was that done by Pratt (1992) who was interested in understandings across various cultures. His research continued over five years and his respondents were both instructors and learners. The five conceptions that he derived from his data were: teaching is (a) delivering content, (b) modeling values and knowledge, (c) cultivating intellectual development, (d) nurturing personal agency, and (e) seeking a better society. Only one conception in the study being reported is like one of Pratt's, and that is the Transmission Conception which is similar to his first conception that teaching is delivering content. In both, the focus is on the content and instructor; the instructors' role is that of expert and their function is delivering content; knowledge is objectified and external; and respondents unquestioningly identified their goals and values with that of the organization. However, comparisons cannot be made as easily with the remaining conceptions.

The Enablement Conception is least like any of Pratt's although some aspects of it are similar to his third conception, cultivating the intellect. The focus is on the learner, instructors are viewed as guides rather than experts, and their role is to facilitate. The respondents

identified individual differences among the learners in terms of learning styles and prior knowledge. However, none of these understandings are related to a person's intellectual development as they were in Pratt's study. In this study, facilitation was of discussion, not personal development, and individual differences appear to be relatively stable conditions.

The Constructive Conception contains elements that are similar to elements of several of Pratt's conceptions. For example, one way of instruction in the Constructive Conception is modeling ways of being a trainer and is characteristic of respondents who were trainers of trainers. They probably perceived themselves as expert practitioners exemplifying the training skills to be learned. However, because of the emphasis on a partnership existing between instructor and learners and on the acknowledgment of expertise in the learners, instruction is not thought of as handing down a "body of established wisdom and knowledge...from those who know to those who don't know" (Pratt, p. 211-212). And unlike Pratt's conception, instruction in this conception ordinarily occurred in a place set apart from the employees specific job, such as a classroom, even though that place was in the informal setting of the workplace.

In the Constructive Conception, there are also glimpses of Pratt's Developmental Conception (cultivating the intellect). The emphasis on learning as constructing meaning from the content is somewhat similar to Pratt's focus on the learners' intellect. In his conception as well, there is a belief that knowledge is constructed. In the Constructive Conception as in Pratt's conception, the learners' prior knowledge is a factor in the building of understanding, and at least some of the respondents believed that challenge to learners' present ways of thinking is important for learning. There are also elements of facilitating personal agency and of seeking a better society in the Constructive Conception (Pratt's fourth and fifth conceptions). As in Pratt's fourth conception, there is an equal and cooperative relationship between instructor and learners in which learning goals are negotiated. Although

the immediate goal of instruction is that learners construct their own understanding of the content, there are also present goals of assisting learners to become independent learners and to become agents of change for a better society. As in Pratt's fifth conception, the respondents that expressed the latter goal, assumed that their view of a better society is "appropriate for all people" (Pratt, p. 216).

It could be speculated that the reason for the similarities of elements of the Constructive Conception to elements of many of Pratt's conceptions, rather than a closer identification of the Constructive Conception with a single conception of Pratt's, is that the setting for the present research was limited to the workplace in a particular culture so that the elements of instruction came together in a different way than they did in Pratt's research which was conducted in many settings in five different countries. If the heterogeneity of the present sample had been greater, differences may have stood out more clearly and there may have been sufficient data to support additional conceptions.

Conceptions of Teaching of Academic Teachers

The study of Samuelowicz & Bain (1992) of conceptions of teaching yielded results that can be compared to the findings of this study. The one conception the two studies have in common is that teaching is imparting information. Characteristics of the conception are similar in both studies: (a) it is teacher and content centered, (b) the instructor has knowledge of the content and is responsible to structure and present it, and (c) there is a single way to think about it. At the same time, some characteristics of Samuelowicz and Bain's fourth conception that teaching is transmitting knowledge and attitudes toward knowledge are also found in this study's Transmission Conception, particularly that content is to be transmitted so that it can be acquired and used by the learners. The Constructive

Conception shares some characteristics with their second conception, that teaching is

directed toward changing students' understanding of the world. The aim of both is understanding, and in one of their variations on the conception, instructors see themselves as equal with the learners so that learning goals are negotiated.

Another interesting similarity in the two studies is the dimensions that Samuelowicz & Bain derived from the conceptions. If they are reduced to a generic form, they parallel the elements of instruction that formed the conceptual framework for this study. Their dimensions with the elements of instruction from this study in parentheses are: (a) the expected outcome of learning (learning), (b) knowledge gained or constructed by the student (content), (c) students' existing conceptions (learners), (d) directionality of teaching (process), (e) control of content (instructor). In other words, the dimensions that they found were sub-elements of the elements in the conceptual framework of this study.

Conceptions of Teaching in Higher Education

There is a marked resemblance between the conceptions of this study and those of Ramsden's (1992) work on teachers in higher education. The settings of the two studies were different and he did not set out to investigate conceptions of teaching among teachers in higher education, but derived three conceptions from interviews of teachers by several researchers. In both works, one similar conception of teaching is the transmission of content with almost identical elements: (a) content is authoritative and unproblematic, (b) instruction takes place by transmission or demonstration; (c) the instructor is the subject matter expert and source of information; (d) learners are passive receivers of knowledge from the instructor; and (e) learning is the absorbing of quantities of information.

There are similarities as well as differences between Ramsden's second conception, that teaching is organizing student activity, and the Enablement Conception. The emphasis shifts from authoritative content to the students or learners who must participate in multiple

activities to learn. Teachers become supervisors or facilitators of learners' involvement in the activities. An element of Ramsden's conception is that learning is guaranteed if the correct techniques are utilized which is not apparent in the Enablement Conception. Another difference is that Ramsden saw his conception as including and adding to the transmission conception, so that although the focus changed from the content to the students, activities were added to the transmission of information. However, the Enablement Conception is a rejection of the Transmission Conception in the study being reported.

The Constructive Conception is similar to Ramsden's third conception that teaching is making learning possible. In both, (a) the emphasis is on learning which is change in understanding, (b) teachers work cooperatively with the learners who are actively engaged with the content, (c) instructional activities are determined by the content and its goals, (d) knowledge is interpreted and constructed by the learners, and (e) teaching activities are context-related requiring flexibility in the teachers. There is a slight difference in the understanding of learning in the two works: in Ramsden's, it is a change in understanding, and in the Constructive Conception, it is seen as constructing or construing meaning. However, the emphasis in both is on meaning which was absent from the other two conceptions in both works.

It is interesting that studies of conceptions of teaching usually yield an understanding of teaching as imparting information that is characterized in largely consistent ways. Beyond that, although other conceptions from different studies have some similar aspects, for example being directed toward meaning and understanding, the unique combination of elements in the conceptions from different studies, generate different understandings. Perhaps the transmission type of conception represents a generic and traditional understanding that teaching is the deliverance of a body of knowledge to learners who desire or need to know it. The other conceptions, then, are variations on this basic understanding with

attempts to probe more deeply one or more of its elements. The way in which the elements of instruction are seen to relate to one another form these other conceptions and differ depending on the study. A common way of analyzing conceptions needs to be found to determine if they are qualitatively different conceptions. The one suggested by Samuelowicz & Bain (1992) of reducing each element of teaching to bipolar categories, and further reducing those categories to bipolar categories of teacher-centeredness or learner-centeredness seems to eliminate the complexity and richness of thinking about teaching that phenomenographic research aims to discover. However, the process suggested by Beaty, Dall'Alba & Marton (1990) in which conceptions are analyzed in terms of referential and structural aspects, which was used in this study, seems to preserve the richness of understanding while at the same time making it possible to compare conceptions from different studies.

Other Relevant Literature

Near the end of Chapter Two, additional literature related to some of the findings of this study was reviewed to aid in the data analysis. The topics of that literature were knowledge and learning and a comparison with the findings will be presented next.

Ways of Knowing in Conceptions of Instruction

Ways of knowing uncovered in the research of this study shared similarities with both Perry's (1970; 1981) and Belenky, Clinchy, Goldberg, and Tarule's (1986) epistemological schemes. It will become clear in the section that follows how their work contributed to an understanding of the conceptions of instruction.

Transmission Conception. The ways of knowing in the Transmission Conception are similar to the assumptions of Perry's dualistic position and Belenky's perspective of received knowledge. In all three categories, knowledge is seen as discrete facts to be gathered and reproduced. It originates outside of the knower and when possessed by a recognized authority, is assumed to be the "right answer." Instructors are viewed as authorities who are expected to give the right answers to the learners. In the Transmission Conception, there is no overt claim to absolutism wherein instructors have the only right answers and everyone else is wrong; however, there is an assumption that the content presented by the instructors is what the learners need to do their jobs.

The interesting aspect of these similarities is that both Perry's and Belenky's research was from the perspective of the learners, and the research being reported in this dissertation is from the perspective of instructors. Both Perry and Belenky concluded that once students are exposed to the pluralistic atmosphere of higher education, this understanding of knowledge disappears; and Perry presented his scheme as developmental, meaning that as individuals mature, they progress to more complex understandings. The question arises as to why adults, all of whom had some college education, some with master's degrees and doctorates, would express what appeared to be an absolutist understanding of knowledge. It could be speculated that their thinking was related to the type of content they described, and indeed this probably was the case for three respondents who said that their way of thinking about instruction (and presumably about knowledge) depended on what they taught. Most of the respondents cited for this conception appeared to assume that there could be little variation in understanding the skills they were teaching, what some of them called "hard skills." However, respondents cited in other conceptions, who taught similar skills, such as management skills, spoke of instruction and knowledge differently. So it is likely that

respondents in this conception construed the content that they taught to be knowledge that

could be understood only in certain ways, even though other individuals perceived the content differently.

Another speculation is that when some individuals are placed in the role of instructor, they revert to the more generic understanding of instruction explained above that might have been an understanding characteristic of their school days. Many respondents cited negative, early educational experiences as reasons for learners' negative attitudes towards attending training as adults. Perhaps instructors teach the way they remember being taught. It would be interesting to interview these respondents in more depth specifically about how they think about knowledge.

Enablement Conception. Some characteristics of the Enablement Conception are like those of the multiplicity position of Perry and the subjective knowledge perspective of Belenky. Knowledge appears to be like Belenky's subjective knowledge; however, it is not seen as existing in the instructors who were the respondents or subjects of this study, but rather in the learners who were objects of the respondents' thinking. Knowledge in this conception most resembled knowledge in Perry's and Belenky's schemes because of the multiplicity of truths that could simultaneously exist in which one person's opinion was as good as anyone else's if it was relevant to her or his experience. Both Perry and Belenky saw this position as still being dualistic. Perry saw personalistic diversity as one pole which is set up to oppose the right-wrong pole of basic dualism. In other words, the position that everyone has a right to his or her own opinion is viewed as the right way to think as distinct from the position that authorities (instructors) have the only right answers to all questions leaving everyone else in error. This is reflected in the Enablement Conception in which trainers are thought of as facilitators in opposition to teachers who instruct, or presumably

give "right answers." Facilitators assist learners in the sharing of their experiences and

opinions which, like those of the students in Belenky's study, are right for them, making authority for the "rightness" of knowledge subjective and internal to the knower.

Like the subjective knowers of Belenky's study, personal experience is seen as a valuable source of knowledge, and truth is both intuitive and pragmatic. Perry characterized the position of multiplicity as egalitarian in that the students saw themselves as peers of their instructors and rejected any authority they may have previously attributed to instructors because of the instructor's role. In the Enablement Conception, although learners are sometimes identified as peers, they are also characterized as experts as opposed to the instructor who is not a content expert. Because this represents the view of instructors, it really is similar to Perry's position - instructors do not possess any authority over the learners by virtue of their role. This also resembles the distrust of expertise characteristic of Belenky's subjective knowledge.

It could be speculated that because all of the respondents cited for the Enablement Conception were women, their thinking would be more like what Belenky found than Perry, and in some ways that is true. As in Belenky's work, respondents seemed to suggest that their opinions are limited rather than that they want to convince others of their rightness as in Perry's work. This self-limitation is implied by their denial of any content expertise.

From a developmental perspective like Perry's, it again seems puzzling that adults with a college education would still think of knowledge as so subjective that opinions needed no foundation for acceptance other than the opinion holder's personal experience. However, Belenky does not see her perspectives as necessarily developmental, and it is questionable whether the conceptions of instruction in this study are. But like Perry's and Belenky's positions of multiplicity and subjective knowledge which are rejections of dualism and received knowledge, at least one element of this conception is a rejection of the Transmission

Conception, and that is the understanding of the instructor's role as facilitator which is

presented as opposed to the understanding of the role as teacher. At the same time, there are also similarities in ways of thinking in the two conceptions. Both the Transmission and Enablement Conceptions are characterized by inconsistent thinking, for example in the belief associated with both conceptions that adults should be taught differently from children followed by dubious rationale. But the most obvious inconsistent thinking is in the Enablement Conception in which trainers are identified as facilitators with no content expertise who are only to assist the learners to share ideas and experiences. However, processes such as skill practice and presenting content are activities of instructors, and learning is still thought of as receiving information. So that even as some understandings of the Transmission Conception were ostensibly rejected in the Enablement Conception, other ways of thinking related to the Transmission Conception are still present.

Constructive Conception. There are similarities between the Constructive Conception and the relativism of Perry as well as both procedural and constructed knowledge of Belenky. As in procedural knowledge, truth can not be immediately attained but is created by the knower through analytic processes. Like relativism and constructed knowledge, knowledge is interpreted contextually. The comparison breaks down somewhat in the procedures for judging knowledge, which were presented by Perry for relativism and by Belenky for procedural knowledge. In the Constructive Conception, the discovery process of learning is emphasized and there is little evidence of procedures or systems used to ascertain the validity of the constructed knowledge. Therefore, this conception may be more like Belenky's procedural knowledge because of the emphasis on how learning takes place with an apparent deemphasis on the truth of what is learned. However, because the study being reported is about instruction, not knowledge, there are not enough data to know how respondents thought knowledge should be validated. However, the sense of responsibility for

critical thinking that Perry saw in his respondents may be similar to the responsibility for learning ascribed to the learners in the Constructive conception. The focus on correct procedures for judging could also be construed as similar to the insistence in this conception on choosing instructional processes based on goals rather than for their own sake.

As in procedural knowledge, in the Constructive Conception, knowledge is also seen as pragmatic in that a measure of learning is in the application of new meanings in whatever area it is directed. The distinction that Belenky made in procedural knowledge between separate knowing and connected knowing also has some parallels in this conception. The adversarial approach that separate knowers take to analyzing knowledge (looking for contradictions rather than commonalities) recalls the suggestion in the constructive conception that challenging learners might be a more effective way to bring about learning. By contrast, connected knowers look for points of connection particularly when they are trying to understand the opinions of others. The parallel to this would be the respondents in the Constructive Conception who believed that learning takes place more effectively in an atmosphere of trust and comfort. It is interesting to note that Belenky saw separate knowing as similar to Perry's relativism and connected knowing as unique to the women she interviewed. In the research being reported here, one respondent who suggested that challenge might better lead to learning was a man, whereas all of the respondents who connected learning with comfort were women. Because of similarities in ways of understanding knowledge in the three conceptions of instruction to the epistemological schemes of Perry and Belenky, it can probably be assumed that ways of knowing are related to ways of thinking about instruction.

Learning

Although the research being reported in this dissertation is about instruction, conceptions of instruction include characteristic ways of viewing learning reflective of the work of Beaty, Dall'Alba & Marton (1990) that was reviewed in Chapter Two. For example, in both the Transmission and Enablement Conceptions, learning is thought of in a way similar to the way learning is viewed in Conceptions A-B-C as described by Beaty et al.. In other words, it is seen as the quantitative increase and acquisition of information and facts to be later reproduced or applied. Likewise, in the Constructive Conception learning is thought of as the discovery of meaning which is the hallmark of Beaty et al.'s Conceptions D-E-F. The work of Beaty et al. was used as the basis for the structural analysis of the data and the comparison of conceptions in the previous chapter.

Revised Conceptual Framework

It may be recalled that a conceptual framework was derived from the literature reviewed for this research and used to guide the data collection and the early data analysis. Six elements were found throughout the literature which when viewed in relationship with one another were construed to comprise the concept of instruction in the workplace. These elements consist of an instructor and learners relating to each other through the content and processes of an instructional situation. The goal of this relationship is learning, which may or may not take place; the relationship itself takes place within the context of the workplace. As depicted at the end of Chapter Two, each element was shown to have a number of sub-elements depending on what aspects of the element were represented in the research. The interview data were found to contain substantially the same six elements; however, the sub-elements changed according to what was relevant to the respondents. The revised

framework is depicted in Figure 6 and will be used to summarize the findings.

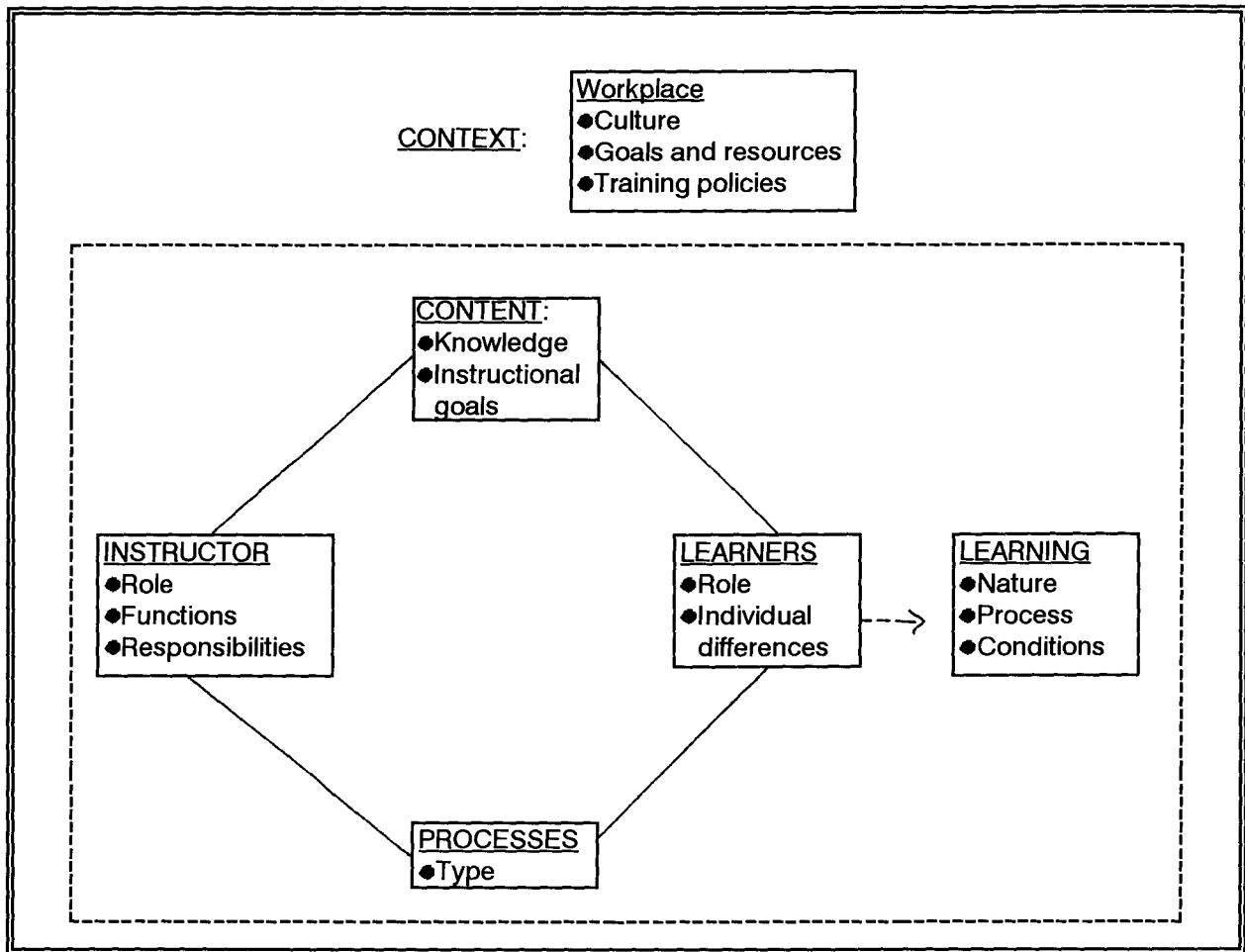


Figure 6. Elements of instruction₂

Element One: Context

The context is the setting within which instruction and learning takes place and can include the organization's structure, culture, goals, administrative resources, and organizational policies, all of which can help or hinder instructors' ability to teach. In the data, the context was ostensibly the same for all the respondents because the training described took place in workplace settings; however, it became evident that individual settings, even within the same industry, were quite different. The structures of the organizations were not explicitly investigated; however, at times they were described by the respondents. It was

inferred from these descriptions that the majority of the organizations were hierarchical in structure.

As important as the structure, if not more so, is the culture of organizations which has been described as "the pattern of values, beliefs, and expectations shared by organization members" (Huse & Cummings, 1985, p. 35). These taken-for-granted assumptions about relationships and work were more frequently discussed by the respondents than was organizational structure.

The descriptions of the context represent the respondents' perceptions which may or may not have been the way others in the organization viewed it, so it cannot be conclusively stated that their views depict the real structure of the organization. However, because the culture of an organization is more subjective and is made up of the members' perceptions, the descriptions in the data probably do reflect some characteristics of the settings of this study. Most respondents viewed their organization's culture as impacting the training function but not their ability to instruct in ways they thought to be effective (except in the Constructive Conception in which the context was seen as a factor in their practice). However, the organization emerged as a framing factor for thinking about instruction which usually harmonized with or reflected the organizational context.

Organizational goals, when cited, were usually espoused by the respondents. The presence or absence of resources like time, space and money were identified as factors impacting training programs, but not necessarily individual teaching practice. Training policies regarding attendance were seen more as a factor in learners' attitudes toward instruction than in the instructor's ability to teach.

Element Two: Instructor

The instructor's relationship with the learners is most often apparent in the descriptions of the instructors' roles, functions, and responsibilities. Much adult education literature described the preferred role for instructing adults as that of a facilitator primarily responsible for managing a process rather than for providing information. Training literature often portrayed the role as that of a coach or mentor who continued to guide employees after they returned to the job from the instructional setting. These as well as other roles are reflected in the research data, and respondents were familiar with roles recommended in the literature.

Instructors' functions followed the respondents' perceptions of roles: as experts they are to present information, as facilitators they are to enable the sharing of information, and as partners with the learners they are to share responsibility for instruction and learning. Likewise, their responsibilities follow their functions: presenters of information were responsible to maintain their expertise, and facilitators needed proficiency in group process skills.

Element Three: Content

Important differences among conceptions of instruction emerged in respondents' thinking about knowledge, a sub-element of content. Knowledge as a unifying concept in each conception was explained in Chapter Four. Even though the nature of knowledge and how the respondents judged its authenticity were not explicitly explored in the interviews, they could be inferred from the respondents' thinking about instruction. Truth, in the sense used in these interviews, where content usually consists of practical skills or knowledge, is for the most part interpreted pragmatically as to what will be useful in the work situation.

In other examinations of conceptions of teaching (Fenstermacher & Soltis, 1992; Pratt, 1992), instructors' intentions and goals were assumed to be important. However, in the case

of these workplace instructors, their instructional goal was almost universally the application of new learning on the job. In addition, in the Enablement and Constructive conceptions, personal and societal goals are also evident, contributing to the interpretation of differences among the conceptions.

A relationship of conception to content was assumed to exist from research on learning (Marton, 1984) in which it was found that conceptions of learning could not be generalized across subject matter domains, but were particular to the subject being learned. In other words, rather than finding conceptions of an abstract construct called learning, the researchers discovered, for example, conceptions of learning reading and conceptions of learning mathematics. In this data, some respondents distinguished between what they termed "hard" and "soft skills." Hard skills, such as computer skills are those which allow little deviation in understanding and performance; and soft skills, such as management skills, are those which can be interpreted in a variety of ways. This differentiation was used by respondents as a rationale for employing different instructional roles; for example, acting in the role of transmitter of information to teach certain life-saving skills, and in the role of facilitator to teach team-building skills. It could be worthwhile to investigate the relationship of conception of instruction to content taught in future research.

Element Four: Processes

Because this research investigated individuals' interpretation of their experiences, the respondents were not observed as they taught, so the only indication of instructional processes used is in their descriptions. Processes are identified in terms of type and are most frequently characterized as didactic, participative, or experiential. Participative processes are associated with all conceptions, although they have different meanings and purposes in each conception. Didactic processes are most often associated with the

Transmission Conception and experiential processes with the Constructive Conception. Also in the Constructive Conception, the goals of instruction are usually considered a major factor for choosing processes.

Element Five: The Learner

In the data being analyzed here, the respondents did not discuss physiological characteristics of the learners such as age and health; however, there appeared to be general agreement that adults continue to have the ability to learn. Of the sociological characteristics, little mention was made of learners' societal role, their culture or ethnicity. However, respondents did view learners' life experiences as important, with some of them believing that these experiences could have a negative as well as a positive effect on learning. At times, the learners' roles in the organization appeared to determine how the respondents in their instructional role reported relating to them. Regarding psychological characteristics, all the respondents agreed that ultimately, learners are responsible for their own learning. Most of them believed that learners differ in learning style, prior knowledge, motivation for learning, and learning needs, differences which affect the ability to learn.

The main difference in thinking about learners is in the way their role in the instructional process is depicted and consequently, the way in which instructors relate to them. All respondents regarded learners as participants to some degree, although learners are also receivers of information (Transmission Conception), content experts in contrast to the instructors who are then the process experts (Enablement Conception), and partners in all aspects of the teaching-learning process (Constructive Conception).

Element Six: Learning

How learning is understood depends in the first place on whether it is being considered as an outcome or as a process (Merriam & Caffarella, 1991). As an outcome, learning can be construed as the new information, skills, behavior, or attitudes learned as a result of a learning experience. The process of learning refers to the human functions involved in the realization of the outcomes. What emerged from the interview data was the respondents' understanding (a) of the nature of learning or what it is, (b) of processes of learning or how it is accomplished, and (c) espoused theories of learning revealed in conditions considered necessary for learning to take place.

The respondents' thinking about the nature of and conditions for learning are important factors in distinguishing conceptions of instruction, even though they had to be prompted for their understanding in the Transmission and Enablement Conceptions. The outcome of learning is usually the application of what is learned on the job, which is also considered as evidence that learning has occurred.

This redefinition of the Conceptual Framework that was first presented at the end of Chapter Two highlights the sub-elements of instruction that respondents in conversation with the interviewer found relevant enough to discuss. All of these sub-elements were discussed in more detail in Chapter Four. Because these interviews were conducted within a limited time-frame (45 - 60 minutes) and were partially directed by the interviewer, they can only portray a point-in-time exposure of the respondents' thinking about instruction. Perhaps at another point in time or with additional indepth interviews, other factors would emerge as important sub-elements of instruction. It is interesting that the six major elements of instruction were readily discussed by the respondents even though at times the element was introduced by the interviewer. This suggests that these elements may constitute an essential framework of instruction within which most relevant factors can be organized.

Summary

In this chapter the findings of the research study being reported were compared with literature about teaching adults, about ways of knowing, and about learning. Facilitation was a popular theme in adult education literature and emerged as a theme in the research data. As in the literature, it was the preferred term for instruction in two conceptions of instruction, the Enablement and the Constructive Conceptions. Most of the guidelines for instructing adults that were recommended in the literature were also found in the interview data for this study. The assumption that adults learn differently from children, also apparent in the literature, is unquestioningly accepted in the Transmission and Enablement Conceptions, and critically considered in the Constructive Conception.

Conceptions of teaching adults from various studies were compared with the conceptions found in this research, and one conception was found to be similar - that instruction is about transmitting information from instructors to learners. At the same time, there are differences in the way these conceptions were interpreted in the different studies.

Several studies were consulted after the data were collected to assist in the interpretation. Two epistemological works by Perry (1970) and by Belenky et al. (1986) were used to interpret data about respondents' thinking about knowledge which is a sub-element of content. Similarities to the various ways of knowing in these two studies were found in all three conceptions. Because the findings and the research approach are similar to this study, a work on learning by Beaty, Dall'Alba & Marton (1990) was used as the basis for the structural analysis of the conceptions of instruction. In the next chapter, the entire study will be summarized, conclusions will be drawn along with questions that were raised, and finally, implications for practice and for future research will be suggested.

CHAPTER VI

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Summary of the Study

This research project began with the question:

What are the qualitatively different conceptions of instruction held by instructors of adults in the workplace?

It arose from an interest in discovering how the teaching of adults was understood in the literature. For the most part, the many handbooks and guidelines for teaching adults are based on an unsubstantiated assumption that adults learn differently from children and should be taught differently. It was decided that it would be interesting and useful to find out how people who are themselves teaching adults conceive of and understand teaching. In other words, to question the assumption with which many research studies on this topic begin - that there is a widely accepted definition of teaching to which instructors can be expected to adhere. The workplace is one setting in which adults are taught, and educational efforts in that setting have increased greatly in recent years. Therefore it was decided to use the workplace as the context for the study and to use the term, instruction, which is more familiar than teaching in that venue.

Phenomenography is the research approach chosen to study this question because it was developed to discover and map people's conceptions of their experiences. It is important to recall that in this type of research, the focus is on variations in understandings of a phenomenon. So that even though individuals' conceptions are assumed to influence their actions, the relationship between conception and behavior is not investigated. Another aspect of phenomenography is that conceptions are derived from the pool of meanings from all the respondents, are the constructions of the researcher, and are not assumed to be characteristics of any individual respondents. However, the conceptions of a phenomenon

held by individuals are contextually dependent, so that an individual may act out of different conceptions in different contexts or even in the same context. The conceptions that are found in such a study are arranged in an outcome space that is usually organized in some way to depict the variation among them.

A conceptual framework was derived from the literature reviewed for this study to guide the development of interview questions and the first stages of data analysis. This framework defined instruction as consisting of six interrelated elements, the context, the instructor, the learners, the content, the instructional processes, and learning. In other words, most research on teaching adults appears to focus on one or more of these elements in a variety of different ways. Different research topics, such as instructor competencies, characteristics of the learner, or conditions for learning make up the sub-elements of the framework. When the interview data were analyzed, it was discovered that although the elements of instruction were ordinarily part of respondents' understandings of instruction, the sub-elements which they found relevant were different. Some of the sub-elements important to the respondents were (a) the cultures of the organizations for which respondents worked; (b) the respondents' ways of thinking about knowledge, a sub-element of content; (c) the instructor's role, whether that was teacher or facilitator; (d) the learners' role and responsibility in the instructional situation; and (e) ways of thinking about learning both as an outcome and as a process.

The sample for the study included twenty-two members of the Puget Sound Chapter of the American Society for Training and Development who were trainers in workplace settings. Sixteen of the trainers were internal consultants, that is they worked for a single organization, and six were external consultants who contracted with various organizations to provide training programs. The sample consisted of eighteen females and four males, ranging in age from 22 to 64, with varying levels of education from high school diplomas to

doctoral degrees. Most of them also had some training in adult education and had from one to thirty years experience instructing adults. This varied group of volunteer respondents worked in approximately eight different industries.

The respondents' understandings of instruction were sought through semi-structured interviews that began by focusing on a recent instructional experience which they were asked to describe. Assumptions, beliefs and understandings underlying the descriptions were then probed in the forty-five to sixty minute interview.

Conceptions of instruction were derived from the interview data through an iterative process of examining units of meaning in the context of the individual interview and the context of all the interviews. Three conceptions were found in this initial stage of analysis. The global meaning of each is: instruction is (a) imparting information to learners who receive and apply it on the job (Transmission Conception), (b) assisting learners to share and apply ideas and experiences (Enablement Conception), and (c) involving learners in an experiential process of discovering and constructing meaning (Constructive Conception). In the next stage of analysis, each of these conceptions was then examined structurally to maximize the differences among them. In the remaining sections of this chapter, the researcher's conclusions, the significance of the study, and implications for research and practice will be presented.

Conclusions

The conclusions of this study center first of all, around the conceptions, and secondly, around certain elements and sub-elements of instruction, namely knowledge, learning, and the context.

Conclusions Related to Conceptions of Instruction

The first conclusion from this study is that there are a variety of ways of thinking about teaching adults that cannot be reduced to two dichotomous forms of either collaborative vs. controlled, or teacher-centered vs. learner-centered instruction. It was demonstrated that involving the learners was interpreted differently in each conception and that instructional control could be over content or processes or both. By determining which of the many elements of instruction is the object of focus, it becomes apparent that a conception that may be construed as being teacher-centered because of the control and authority vested in the instructor, could just as well be seen as content-centered because that is where the instructor's energies are focused. Although the Constructive Conception could be interpreted as being learner-centered, the learners were viewed as partners with the instructor, which is quite different from the way they were seen in the Enablement Conception in which they were experts as opposed to the non-expert instructor. Reducing conceptions of teaching to opposite poles overlooks and diminishes other elements that are important for seeing how individuals relate one element to another to create their own understanding of instruction.

One interesting finding mentioned previously is that the Transmission Conception of instruction very closely resembles Pratt's (1992) Engineering Conception (teaching is delivering content), Samuelowicz & Bain's (1992) conception that teaching is about imparting information, and Ramsden's (1992) conception that teaching in higher education is about the transmission of content. This finding has led to the conclusion that the Transmission Conception appears to be a generic understanding of the instruction of adults common to various settings. This conception of instruction is often assumed to denote training in the workplace as opposed to teaching in academic settings. However, in this research which took place in the workplace, other conceptions were also found, and in Ramsden's and

Samuelowicz & Bain's works on academic teachers, imparting information was one of their

conceptions, thus illustrating the caution that should be taken when assuming how people interpret their experiences.

A third conclusion that has been referred to frequently throughout the last two chapters is that individuals appear to hold one predominant conception of instruction. The assumption at the beginning of this study was that any number of conceptions could be held and used in different situations and for different purposes. That assumption is still supported, but there seemed to be a primary way of thinking to which respondents consistently returned. When they said something that could be interpreted as relating to a different conception of instruction, it more often appeared to be an inconsistency in their thinking about a single element of instruction rather than an entirely different understanding involving various elements of instruction. The exceptions were those few respondents who were aware that they thought differently about instruction depending on the situation; for example, when teaching "hard" vs. "soft" skills; or when facilitating a retreat vs. teaching a university class. Pratt (1992) also concluded that even though respondents in his studies may have held two or three conceptions, one conception usually predominated. Beaty, Dall'Alba, and Marton (1990) came to a similar conclusion which they recognized as differing from previous phenomenographic studies. Their reinterpretation of data on learning from earlier studies led them to conclude that "although the students express conceptions of learning that may differ from one occasion to another, they do it in an individually characteristic way" (p. 38).

In the last chapter, it was stated that the data of this study is not sufficient to conclude that the conceptions are hierarchical or developmental. However, the question persists of whether any conception is better than the others. The researcher's bias undoubtedly came through in the analysis of the conceptions because more questions were raised about the Transmission and Enablement Conceptions than about the Constructive Conception. And yet an assumption of phenomenography is that conceptions are not necessarily right or wrong,

just different and appropriate at different times, in different contexts, or for different goals. However, if Marton et al.'s (1984) conclusion is accepted that learning is changing one's understanding or conception of a phenomenon, then the Constructive Conception would be preferred because it specifically directs instruction toward understanding. There may be instructional situations in which the goal would be performance of a skill so rote and technical that an understanding of its purpose or appropriateness is not required; however, none of the situations described by the respondents appeared to be of that nature. Several respondents, whose predominant conception appeared to be the Transmission or Enablement Conceptions, spoke of situations in which understanding is necessary for the application of the skills that were being learned, and yet understanding was not included in the respondents' thematization about instruction and learning. It appears that in those two conceptions, meaning and understanding are taken for granted, not reflected upon or thematized.

Conclusions Related to Elements of Instruction

This study began with the assumption that all the elements of instruction were equally important to the understanding of the concept, and that the relevancy structures of the respondents would determine which elements emerged with more significance than the others. The understanding of knowledge, although included as a sub-element of the content, became important as a unifying element in the understanding of instruction. As an example, it may be recalled that in the Transmission Conception knowledge was viewed as a predefined body of information, obtained by expert instructors from external sources to be presented to learners who receive and accept it as authoritative, then apply it on the job. It is evident that the way respondents thought about knowledge was apparent in their thinking about what instruction is, about their role, about the learners, and about learning.

Another element of instruction around which conclusions were drawn is learning. At the beginning of this research, even though instruction was usually closely linked to learning in the literature, an effort was made to limit the study to instruction because so much work had already been done in the area of learning. A conclusion that can be drawn from the findings is that there is a relationship between the understanding of instruction and of learning, and it could be speculated that the understanding of knowledge is the connecting link. In other words, when one thinks of knowledge as external and received, one thinks of teaching as giving knowledge and of learning as acquiring knowledge. This relationship between teaching and learning should not be so surprising, because although teaching does not always result in learning, learning is always the intention of teaching.

Another conclusion related to learning is that there is possibly an essential component of thinking about instruction in the workplace. In the structural analysis of the conceptions described in Chapter Four, a component found in all three conceptions was applying knowledge on the job. Therefore it appears that an important goal of instruction in the workplace is that learners will be able to apply the knowledge and skills they have learned on-the-job. It is similar to Beaty, Dall'Alba, and Marton's (1990) conclusion that there is an essential characteristic of thinking about learning (permanence) from its presence in all their conceptions of learning. It may be questioned whether the application component is essential to instruction because it was the referential aspect of a way of learning, however, it should be recalled that it has also been concluded that ways of thinking about learning are related to conceptions of instruction.

The last element of instruction to be discussed is the context. There are assumptions in adult education literature that most work organizations are hierarchical structures in which employees have little freedom or opportunity to make decisions related to their worklife. This may be true in some situations, but not in all. What became clear in the data of this research

was that although the structure of an organization might be hierarchical, the more important factor determining the involvement of employees in work related decisions was the organization's culture, a finding which was explored in more detail in Chapter Four. Even though respondents did not always thematize a relationship between organizational factors, such as culture, and their practice, it has been concluded that the context is a framing factor for conceptions of instruction. Further analysis of the data revealed that contextual factors did indeed contribute to their thinking about instruction; for example, the lack of support for training by upper management was perceived as a challenge to one of the respondents even though he said it did not affect his practice. Even though respondents might have been critical of organizational policies or resources, they supported or reflected organizational goals, giving further evidence to this conclusion that the context can be thought of as a framing factor for the conceptions.

Implications of the Study

Future Research

The implications for research from this study can be envisioned in two different ways; in the first place in the tools it has produced, and secondly, in the questions it has raised. Three tools resulting from or used in this research could be useful in future research. The outcome space depicting the variations in conceptions of instruction can be used to study instruction in other contexts. It could be used either by itself or in combination with outcome spaces from other studies of instruction to determine the source of differences in conceptions among instructors of adults. This study was not meant to determine why instructors hold particular conceptions of instruction, although it is an interesting question arising from the study. Some speculations have already been suggested - perhaps it is because of a certain

understanding of knowledge or because of the content being taught (which was given by

some respondents as the reason for having different understandings). Other possible explanations are the extent and type of previous teaching experience or teacher training they have had.

The outcome space could also be used in conjunction with the conceptual framework that was derived from the literature to design studies similar to this one investigating conceptions of instruction in other settings. The conceptual framework depicting the elements of instruction is still a useful tool to design interview questions and to structure the description of the conceptions. At the same time, the outcome space of conceptions suggests that certain elements of instruction should be probed in more depth in future studies, particularly understandings of knowledge and perceptions of the context. Should someone wish to do a different type of study, a questionnaire could be devised from the conceptual framework and the outcome space to investigate which instructors hold conceptions of instruction as defined here.

The third useful tool borrowed from Beaty, Dall'Alba and Marton (1990) and used in this study is the structural analysis of the conceptions. It may be recalled that the conceptions of instruction were analyzed first of all by identifying various components of each conception, then by describing the referential and structural aspects of each component. The process resulted in a more detailed description of each conception highlighting their differences. Such an analysis could be used to compare the conceptions from this study with conceptions from other studies to discover similarities and differences among the conceptions. The larger outcome space of conceptions of teaching adults resulting from such a comparison could be used to study the interrelationship of conceptions with various factors.

A number of questions have been suggested by the findings and conclusions of this study that could be used as a basis for future research studies. Some of these questions

have already been raised, such as what is the source of the variation in thinking about instruction and what other conceptions of instruction might there be? Three elements of instruction in particular have stimulated the most questions for this researcher. In the first place, knowledge emerged in a way that was not anticipated. Questions related to this element are: (a) How is knowledge understood by teachers in other settings? (b) How is knowledge understood by a teacher in different areas of his or her life? (c) Do teachers' ways of knowing change as they gain teaching experience? Questions related to a more thorough consideration of the relationship of epistemology to conceptions of teaching are: (a) Is the way individuals think about knowledge more basic to their conceptual structure and therefore more unchanging than their conception of instruction? (b) If a conception of instruction includes certain assumptions about knowledge, is it possible for individuals to hold more than one conception and therefore more than one way of knowing at a time?

The instructional element of content, about which little research was found, could also be explored in future research. When content was examined, some respondents distinguished between "hard" and "soft" skills as the basis for their thinking about instruction, (discussed in Chapter Four). This brings up questions similar to those raised by Marton et al. (1984) about learning: What is the relationship of conception of instruction to the content that is taught? Does an instructor use one conception when teaching computer skills and a different conception when teaching leadership skills? Other questions arise about the relationship between ways of knowing, conceptions of instruction and type of content. For example, when thinking about teaching computer skills, does one think about knowledge as given, whereas when thinking about teaching leadership skills, does that same person think of knowledge as contextual and constructed? There is a question raised by the Enablement Conception: Can an individual be said to be engaged in instruction if that person does not have content knowledge? If the instructor does not have content knowledge and the intention

of instruction is to bring about learning, to what is that learning directed and how will the instructor know when learning has occurred?

The other element that generated a number of questions is the context. This study was conducted within a particular setting identified as the workplace. It became obvious that the workplace is an extremely broad concept that could be defined in any number of ways related to a variety of factors, such as the industry to which it belonged, its organizational structure, its culture. Although the relationship of conception to context was not explored, it was observed that the cultures of different organizations within the same industry were perceived differently. The question arises as to whether certain conceptions of instruction are incompatible with certain organizational cultures. Will an instructor who understands instruction as eliciting knowledge from learners experience dissonance if she trains in an organization where her supervisors understand instruction as the transmitting of pre-defined information to the learners?

These are only some of the questions that come to mind from an immersion in the data produced by this research study. They are not intended to be definitive research questions, merely to suggest possible avenues of inquiry to the reader who may be interested in exploring this vast and complex topic of the instruction of adults in the workplace.

Professional Practice

The other area in which this study should be useful is for the training and professional development of trainers and teachers. The conceptual framework of elements of instruction and the outcome space of conceptions could help instructors of trainers and teachers to devise simple ways of discovering how those who are learning to teach understand the various elements of instruction. Not only could such a process or tool be used to find their

beginning conceptions, but it could also be used at the end of instruction to discover if the conception had changed.

These two tools of the conceptual framework and the outcome space could also be used by instructors to develop a course on training trainers or teachers. A comparison of the sub-elements of instruction that the respondents found relevant with those that were suggested by the literature point out areas that may need special attention in such a course. For example, respondents were very conversant with the psychological characteristics of learners such as learning styles and motivation for learning, but sociological characteristics like the learners' life situations, societal roles, or cultures were not mentioned. At the same time, some respondents had appeared to have a deterministic perspective on learning styles believing that if their teaching style somehow matched the learning styles of the learners, learning would occur. Another area probably needing comprehensive coverage in a train the trainer course is the negative as well as the positive impact on learning of learners' previous life experiences and prior knowledge of a topic. Such a comparison of the two conceptual frameworks (before and after the data was gathered) should generate many more topics to be included in a train the trainer or teacher course.

In a similar way, the results of this study could be used for the professional development of trainers and teachers. In the literature review, it was pointed out that reflective thinking about teaching is a component of competence, so that for instructors to become more proficient at their craft it would be beneficial for them to reflect on their own way of thinking about instruction as well as to discover that there are alternative ways of construing it. Again, the conceptual framework and the outcome space of conceptions could be used to construct a process or tool for supervisors to use in development work with instructors, or for the instructors to use to map their personal understandings of instruction.

Then alternative conceptions could be studied, analyzed and compared with their own to see

if and where changes might be made. Goals for change could be developed, then at some future time, the process or tool could again be used to determine if change had occurred.

Significance of the Findings

The findings of this study are significant in three different areas: (a) the construction of knowledge about instruction, (b) adult education literature, and (c) reflective tools for instructors. The purpose of this research was to discover ways in which instruction is understood in the workplace and to continue building knowledge about the teaching of adults, as well as to uncover dimensions of instruction that had not been considered before. This research has contributed to the construction of knowledge about the instruction of adults by the discovery of three qualitatively different conceptions of instruction. Even though similar understandings of instruction can be found in the literature, the corresponding understandings of the elements of instruction and the various structural components of each conception provide a more detailed and indepth understanding of each conception. An important competency for instructors is knowing how knowledge of the content they are teaching is constructed both by specialists in the field and by those who will be learning it. This is somewhat problematic with the topic of teaching or instruction because it represents a complex relationship of factors about which there are few well-substantiated theories. The teaching of adults is further complicated by the fact that many instructors have had little or no training in instruction so it cannot be assumed that they have reflected on their understanding of teaching. Besides that there are many handbooks recommending ways of teaching based on unsubstantiated assumptions about adults as learners. These factors suggest that it is important for trainers of instructors to know not only how knowledge about instruction is constructed in the field of education and other relevant fields, but to know that there are

alternative ways of conceptualizing instruction among practitioners, and then gradually to come to know what those conceptions might be.

Instructors of adults look to adult education literature for guidance for their practice. Several dimensions of instruction were uncovered in this study that were not strongly evident in the literature researched for this study. These were discussed in previous sections and are only highlighted here. Understandings of knowledge were found to be important to conceptions of teaching. Although learning is a frequent topic in adult education literature, instructors' understandings of learning are seldom cited as being important for the way they think about teaching. A transmission type conception is usually assumed to be way training in the workplace is understood, and yet this study demonstrates that there are alternative perspectives. Recommendations for teaching are seldom contextual, and yet the context emerged as a framing factor for instruction. A frequent recommendation in the literature is that the instruction of adults should be learner-centered, however, this study suggests that this recommendation can be interpreted rather naively as indicated by the Enablement Conception. Regarding principles of adult learning, this study adds further emphasis to an infrequently found principle that instructors of adults should know different ways in which adult learners conceptualize both the content being taught and learning. However, it is also the opinion of this researcher that this principle applies to instructors of individuals of any age. Although it cannot be concluded that the identical three conceptions found in this study would necessarily be found in other settings, it demonstrates that there are variations in thinking about instruction and that instructors cannot assume that they know what meaning those who want to learn to instruct ascribe to terms like "teaching" and "learning."

The third significance of this study is that it has produced a set of conceptions that is a generative tool for thinking about instruction not only in workplace settings but in other settings, and not only of adults but of learners of all ages. It is a heuristic device, useful to

instructors for interpreting the situation during instruction and for reflecting on their practice after instruction. This tool is also useful to trainers of instructors for discovering how those they are instructing conceptualize instruction, and for training instructors to reflect on their own practice.

It is hoped that the conceptions of instruction found in this study contribute in some small way to the construction of knowledge about teaching adults, particularly in the workplace. In today's world, the workplace is an arena of tremendous change impacting the lives of many people, and in the midst of that change many educational efforts are being launched to help people not only cope with change but also become agents of change themselves. It is important that those who are involved in the initiation and implementation of such educational endeavors "ensure that these efforts are conducted humanely, respectfully, and carefully and [that] they incorporate collaborative and critically reflective elements" (Brookfield, 1986, p. 191).

REFERENCES

- American Educational Research Association. (1950). Adult education [Special issue]. Review of Educational Research, 20(3).
- American Educational Research Association. (1953). Adult education [Special issue]. Review of Educational Research, 23(3).
- American Educational Research Association. (1959). Adult education [Special issue]. Review of Educational Research, 29(3).
- American Educational Research Association. (1965). Adult education [Special issue]. Review of Educational Research, 35(3).
- Apps, J. W. (1979). Problems in continuing education. NY: McGraw-Hill.
- Apps, J. W. (1981). The adult learner on campus: A guide for instructors and administrators. Chicago: Follett Publishing Company.
- Apps, J. W. (1991). Mastering the teaching of adults. Malabar, FL: Krieger.
- Argyris, C., & Schön, D. A. (1974). Theory in practice: Increasing professional effectiveness. San Francisco: Jossey-Bass.
- Beaty, E., Dall'Alba, G. & Marton, F. (1990). Conceptions of learning. Unpublished manuscript.
- Beder, H. & Carrera, N. (1988). The effects of andragogical teacher training on adult students' attendance and evaluation of their teachers. Adult Education Quarterly, 38, 75-87.
- Beder, H. W. & Darkenwald, G. G. (1982). Differences between teaching adults and pre-adults: Some propositions and findings. Adult Education, 32, 142-155.
- Belenky, M. F., Clinchy, B. M., Goldberg, N. R., & Tarule, J. M. (1986). Women's ways of knowing: The development of self, voice, and mind. USA: Basic Books, Inc.
- Berg, C. N., Jr. (1969). Relationship among teachers' knowledge and application of principles of adult teaching and student satisfaction (Project No. 8-E-095). Chicago, IL: University of Chicago. (ERIC Document Reproduction Service No. ED 052 454).
- Borg, W. R. & Gall, M. D. (1983). Educational research: An introduction (4th ed.). New York: Longman.
- Bray, S. (1986). Exploring the instructional process in a professional school: A study of instructors' thinking during teaching. Unpublished doctoral dissertation, University of Toronto.

- Brockett, R. G. & Darkenwald, G. G. (1987). Trends in research on the adult learner. New Directions for Continuing Education, 36, 29-40.
- Brookfield, S. D. (1985). A critical definition of adult education. Adult Education Quarterly, 36, 44-49.
- Brookfield, S. D. (1986). Understanding and facilitating adult learning. San Francisco: Jossey-Bass Publishers.
- Brookfield, S. (1989). Facilitating adult learning. In S. B. Merriam & P. M. Cunningham, Handbook of adult and continuing education (pp. 201-210). San Francisco: Jossey-Bass.
- Brookfield, S. D. (1990). The skillful teacher: On technique, trust, and responsiveness in the classroom. San Francisco: Jossey-Bass.
- Brookfield, S. D. (1992a). Developing criteria for formal theory building in adult education. Adult Education Quarterly, 42(2), 79-83.
- Brookfield, S. D. (1992b). Uncovering assumptions: The key to reflective practice. Adult Learning, 3(4), 13-14,18.
- Brostrom, R. (1979). Training style inventory. In Annual handbook for group facilitators (pp.92-98). LaJolla, CA: University Associates.
- Brunner, E. deS., Wilder, D. S., Kirchner, C., & Newberry, J. S. Jr. (1959). An overview of adult education research. Washington, D. C.: Adult Education Association of the U.S.A.
- Carlson, R. A. (1979). The time of andragogy. Adult Education, 30, 53-57.
- Carnevale, A. P. (1989). The learning enterprise. Training and Development Journal, 43(2), 26-33.
- Cervero, R. M. (1989, May). A framework for effective practice in adult education. Proceedings of the Annual Adult Education Research Conference, (pp. 61-66). Madison, WI.
- Clark, C. M. & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed., pp. 255-296). NY: Macmillan.
- Clow, T. L. (1987). Difference between teacher professed collaborative teaching mode and adult student perception of collaborative teaching mode. Dissertation Abstracts International, 47, 3634-3635(A).
- Colquitt-Wilkins, R. (1985). Factors associated with North Carolina Adult Basic Education instructors' perceptions of teaching competencies. Dissertation Abstracts International, 46, 1491A.

- Conti, G. J. (1979, April). Principles of adult learning scale. Proceedings of the Annual Adult Education Research Conference (pp. 164-170). Ann Arbor, MI.
- Conti, G. J. (1983, April). Principles of adult learning scale: Followup and factor analysis. Proceedings of the Annual Adult Education Research Conference (pp. 63-68). Montreal, Quebec, Canada.
- Conti, G. J. (1984, April). Does teaching style make a difference in adult education? Proceedings of the Annual Adult Education Research Conference (pp. 44-49). Raleigh, NC.
- Conti, G. J. (1985). Assessing teaching style in adult education: How and why. Lifelong Learning, 8(8), 7-11.
- Copa, P. & Sandmann, L. R. (1987, October). Profile of excellence...Or becoming a more reflective adult education practitioner. Paper presented at the meeting of the American Association for Adult and Continuing Education, Washington, DC.
- Cross, K. P. (1981). Adults as learners. San Francisco: Jossey-Bass.
- Dahlgren, L. (1984). Outcomes of learning. In F. Marton, D. Housnell, & N. Entwistle (Eds.), The experience of learning (pp. 19-35). Edinburgh, Scotland: Scottish Academic Press.
- Daloz, L. A. (1986). Effective teaching and mentoring. San Francisco: Jossey-Bass.
- Darkenwald, G. G. (1982). Factorial structure of differences in teaching behavior related to adult/pre-adult student age status. Adult Education, 32, 197-204.
- Darkenwald, G. & Merriam, S. B. (1982). Adult education: Foundations of practice. New York: Harper & Row, Publishers.
- Davenport, J., III. (1987). Is there any way out of the andragogy morass? Lifelong Learning, 11(3), 17-20.
- Davenport, J., III and Davenport, J. H. (1985). Knowles or Lindeman: Would the real father of andragogy please stand up? Lifelong Learning, 9(1), 4-5.
- Deshler, D. & Benardot, D. (1979). Adult education effectiveness: A conceptual framework for research directions. Ithaca, NY: Cornell University. (ERIC Reproduction Service No. ED 195 721)
- Deshler, D. with Hagan, N. (1989). Adult education research: Issues and directions. In S. B. Merriam & P. M. Cunningham, Handbook of adult and continuing education (pp. 147-167). San Francisco: Jossey-Boss
-
- Dickinson, G. (1973). Teaching adults: A handbook for instructors. Toronto: New Press.

- Douglass, J. F. (1982). An analysis of the relationship between professional training in adult education and orientation to the collaborative teaching-learning mode in Washington State hospitals and the Washington State Cooperative Extension Service. Dissertation Abstracts International, 43, 2855A.
- Draves, W. A. (1984). How to teach adults. Manhattan, KS: The Learning Resources Network.
- Eaves, T. A. (1985, November). Trainer competencies: An examination of existing research. Paper presented at the National Adult Education Conference of the American Association for Adult and Continuing Education., Milwaukee, WI. (ERIC Document Reproduction Service No. ED 271 575).
- Elias, J. L. (1979). Andragogy revisited. Adult Education, 29, 252-256.
- Entwistle, N. (1984). Contrasting perspective on learning. In F. Marton, D. Housnell, & N. Entwistle (Eds.), The experience of learning (pp. 1-18). Edinburgh, Scotland: Scottish Academic Press.
- Entwistle, N. & Marton, F. (1984). Changing conceptions of learning and research. In F. Marton, D. Housnell, & N. Entwistle (Eds.), The experience of learning (pp. 211-228). Edinburgh, Scotland: Scottish Academic Press.
- Fashokun, J. A. (1988). A descriptive study of the San Francisco Bay area art instructors' perceptions of the knowledge and qualities needed for effective visual art teaching at the college level. Dissertation Abstracts International, 50, 56A.
- Fenn, N. E., Jr. (1972). The identification of competencies pertinent to the certification of teachers in adult basic education. Dissertation Abstracts International, 32, 545A.
- Fenstermacher, G. D. (1986). Philosophy of research on teaching: Three aspects. In M. C. Wittrock (Ed.), Handbook of research on teaching, (3rd ed., pp. 37-49). NY: Macmillan.
- Fenstermacher, G. D. & Soltis, J. F. (1986). Approaches to teaching. NY: Teachers' College Press.
- Flanders, N. A.. (1987). Human interaction models. In M. J. Dunkin (Ed.), The international encyclopedia of teaching and teacher education (pp. 20-28). Oxford: Pergamon Press.
- Franklin, J. (1989, May). The collaborative teaching-learning mode: Adult learning principles and managers of training and development in business. Proceedings of the Annual Adult Education Research Conference (pp. 145-148). Madison, WI.
- Glaser, B. G. & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine.

- Gorham, J. (1985). Differences between teaching adults and pre-adults. Adult Education Quarterly, 35, 194-209.
- Gove, P. B. (1981). Webster's third international dictionary of the English language: Unabridged. Springfield, MA: G & C Merriam Co.
- Gowan, N. J. (1988). A review of the literature on teaching adults: Trends and implications. Unpublished Master's Thesis, University of British Columbia, Vancouver.
- Grabowski, S. M. (1976). Training teachers of adults: Models and innovative programs. Syracuse University: Publications in Continuing Education, 46. National Association for Public and Continuing Education and ERIC Clearinghouse.
- Graham, S. L. (1989, May). The collaborative mode, instructor characteristics, and student retention. Proceedings of the Annual Adult Education Research Conference (pp. 165-170). Madison, WI.
- Hadley, H. N. (1975). Development of an instrument to determine adult educators' orientation: Andragogical or pedagogical. Dissertation Abstracts International, 35(12A), 7595.
- Hammersley, M. & Atkinson, P. (1983). Ethnography: Principles in practice. London: Tavistock Publications.
- Hartree, A. (1984). Malcolm Knowles' theory of andragogy: A critique. International Journal of Lifelong Education, 3, 203-210.
- Hills, J. (1987). A conceptual framework for thinking about conceptual frameworks. Unpublished manuscript, Department of Administrative, Adult, and Higher Education, The University of British Columbia, Vancouver, B. C.
- Holmes, M. R. (1980). Interpersonal behaviors and their relationship to the andragogical and pedagogical orientations of adult educators. Adult Education, 31, 18-29.
- Houle, C. O. (1982). The design of education. San Francisco: Jossey-Bass.
- Huse, E. F., & Cummings, T. G. (1985). Organization development and change (3rd ed.). St. Paul, MN: West.
- Jahns, I. R. (1981). In S. M. Grabowski and Associates. Preparing educators of adults (pp. 94-114). San Francisco: Jossey-Bass.
- James, W. B. (1983, April). An analysis of perceptions of adult educators from five different settings. Proceedings of the Annual Adult Education Research Conference (pp. 130-135). Montreal, Quebec, Canada.
-
- Jarvis, P. (1983). Adult and continuing education: theory and practice. New York: Nichols Publ. Co.

- Jensen, G. (1964). Social psychology and adult education practice. In G. Jensen, A. A. Liveright, & W. Hallenbeck (Eds.), Adult Education: Outlines of an emerging field of university study. Adult Education Association of the U.S.A.
- Kerlinger, F. N. (1973). Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart & Winston.
- Kerwin, M. A. (1979). The relationship of selected factors to the educational orientation of andragogically- and pedagogically-oriented educators teaching in four of North Carolina's two-year colleges. Dissertation Abstracts International, 40, 610A.
- Kidd, J. R. (1973). How adults learn. Chicago: Association Press. Follett Publishing Co.
- Knowles, M. S. (1979). Andragogy revisited part II. Adult Education, 30, 53-57.
- Knowles, M. S. (1980). The modern practice of adult education: From pedagogy to andragogy. Chicago: Follett Publishing Co.
- Knox, A. B. (1980a). Proficiency theory of adult learning. Contemporary Educational Psychology, 5, 378-404.
- Knox, A. B. (Ed.). (1980b). Teaching adults effectively: New directions for continuing education, No. 6. San Francisco: Jossey-Bass.
- Knox, A. B. (1985). Adult education research: United States. In T. Husen & T. N. Postlethwaite, International encyclopedia of education research and studies, (Vol. 1, pp. 181-184). Oxford: Pergamon Press
- Knox, A. B. (1986). Helping adults learn: A Guide to planning, implementing, and conducting programs. San Francisco: Jossey-Bass.
- Kreitlow, B. W. (1959). Adult education - An overview. Review of Educational Research, 29(3), 225-229.
- Kreitlow, B. W. (1970). Research and theory. In R. M. Smith, G. F. Aker, & J. R. Kidd (Eds.), Handbook of adult education (pp. 137-149). New York: Macmillan.
- Langerman, P. D. (Ed.). (1974). You can be a successful teacher of adults. Washington, D.C.: National Association for Public Continuing and Adult Education.
- Larsson, S. (1983a). Paradoxes in teaching. Instructional Science, 12, 355-365.
- Larsson, S. (1983b). Teachers' interpretations of the concept of "experience". In B. S. Reynolds (Ed.), Learning and Experience in Formal Education (pp. 17-25). Manchester Monographs.
-
- Larsson, S. (1986). Learning from experience: Teachers' conceptions of changes in their professional practice. Journal of Curriculum Studies, 19(1), 35-43.

- Law, M. & Rubenson, K. (1988, July). Andragogy: The return of the Jedi. In M. Zukas (Ed.), Proceedings of the Transatlantic Dialogue: A research exchange/Papers from a joint conference (pp. 232-237), Leeds, England.
- Lawler, P. A. (1988). Workplace education and the principles and practices of adult education. Unpublished doctoral dissertation, Columbia University Teachers College, New York.
- LeCompte, M. D. & Goetz, J. P. (1982). Problems of reliability and validity in ethnographic research. Review of Educational Research, 52, 31-60.
- Lincoln, Y. S. & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage Publications.
- Lindblad, S. (1984, May). Teachers' ideological positions on school-centered innovative work. Paper presented at the Annual Human Science Research Conference, Carrollton, Georgia.
- Lindblad, S. & Hasselgren, B. (1983, October). Teachers changing teaching: A study of conceptions. Paper presented at the First ISATT Symposium, Tilburg University, The Netherlands.
- Logue, I. H. (1983). An examination of pedagogical-andragogical principles in teacher inservice courses. Dissertation Abstracts International, 44, 44A.
- Long, H. B. (1983). Adult learning: Research and practice. Cambridge: The Adult Education Company.
- Lybeck, L., Marton, F., Stromdahl, H., & Tullberg, A. (1988). The Phenomenography of the 'mole concept' in chemistry. In P. Ramsden (Ed.), Improving learning: New perspectives (pp. 81-108). London: Kogan Page.
- Marsick, V. J. (Ed.). (1987). Learning in the workplace. Beckenham, Kent, U.K.: Croom Helm.
- Marton, F. (1981). Phenomenography - Describing conceptions of the world around us. Instructional Science, 10, 177-200.
- Marton, F. (1984). Towards a psychology beyond the individual. In K. M. J. Lagerspetz & P. Niemi (Eds.), Psychology in the 1990's (pp. 45-72). North Holland: Elsevier Science Publishers B. V.
- Marton, F. (1986). Phenomenography--A research approach to investigating different understandings of reality. Journal of Thought, 21(3), 28-49.
- Marton, F. (1988). Phenomenography: Exploring different conceptions of reality. In D. M. Fetterman (Ed.), Qualitative approaches to evaluation in education (pp. 176-205). New York: Praeger.

- Marton, F., Hounsell, D., & Entwistle, N. (1984). The experience of learning. Edinburgh: Scottish Academic Press.
- Marton, F. & Neuman, D. (1988, July-August). Constructivism versus constitutionalism: Some implications for the first mathematics education. Paper presented at the Sixth International Congress on Mathematical Education, Budapest, Hungary.
- Marton, F. & Säljö, R. (1984). Approaches to learning. In F. Marton, D. Hounsell, & N. Entwistle, The experience of learning (pp. 36-55). Edinburgh: Scottish Academic Press.
- Marton, F. & Svensson, L. (1979). Conceptions of research in student learning. Higher Education, 8, 471-486.
- McDaniel, G. D. (1969). Comparison of verbal behavior of teachers teaching both adult basic education and public school classes. In R. DeCrow & S. M. Grabowski (Eds.), (1971), Research and investigation in adult education: 1970 annual register. Syracuse, NY: ERIC Clearinghouse on Adult Education. (ERIC Document Reproduction Service No. ED 045 866).
- McKenzie, L. (1977). The issue of andragogy. Adult Education, 27, 225-229.
- Merriam, S. B. & Caffarella, R. S. (1991). Learning in adulthood: A comprehensive guide. San Francisco: Jossey-Bass.
- Merriam, S. B. & Cunningham, P. M. (1989). Handbook of adult and continuing education. San Francisco: Jossey-Bass.
- Mezirow, J. (1981). A critical theory of adult learning and education. Adult Education, 32, 3-24.
- Mezirow, J., Darkenwald, G. G., Knox, A. B. (1975). Last gamble on education: Dynamics of adult basic education. Washington, D. C.: Adult Education Association of the USA.
- Miller, H. L. (1964). Teaching and learning in adult education. New York: The MacMillan Company.
- Mocker, D. (1974). The identification, classification, and ranking of knowledge, behaviors, and attitudes appropriate for adult basic education teachers. Dissertation Abstracts International, 34, 4962A.
- Moore, A. B. (1982). Learning and teaching styles of adult education teachers. Proceedings of the Annual Adult Education Research Conference (pp. 148-153), Lincoln, NE.
- Nadler, L. & Nadler, Z. (1989). Developing Human Resources (3rd ed.). San Francisco: Jossey-Bass.

- O'Gorman, J. D. (1981). Philosophical and educational orientations of adult basic education teachers. Dissertation Abstracts International, 42, 963-964A.
- Oberle, E. M. (1981). An analysis of perceptions of adult education practices in University Extension. Dissertation Abstracts International, 43, 48A.
- Pearson, T. G. (1980). Managerial philosophy and adult learning principles: Training and development professionals as managers of collaborative learning. Dissertation Abstracts International, 41, 4937A.
- Perry, W. G. (1970). Forms of intellectual and ethical development in the college years: A scheme. New York: Holt, Rinehart & Winston.
- Perry, W. G. (1981). Cognitive and ethical growth: The making of meaning. In A. Chickering (Ed.), The modern American college, (pp. 76-116). San Francisco: Jossey-Bass.
- Pintrich, P. R. (1990). Implications of psychological research on student learning and college teaching for teacher education. In W. R. Houston, Handbook of research on teacher education (pp. 826-857). NY: Macmillan.
- Podeschi, R. L. and Pearson, E. M. (1986). Knowles and Maslow: Differences about freedom. Lifelong Learning, 9(7), 16-18.
- Pratt, D. D. (1983). Tutoring adults: Toward a definition of tutorial role and function in adult basic education. Adult Literacy and Basic Education, 7, 138-152.
- Pratt, D. D. (1984, April). Andragogical assumptions: Some counter intuitive logic. Proceedings of the Annual Adult Education Research Conference, (pp.147-153). Raleigh, North Carolina.
- Pratt, D. D. (1988a). Andragogy as a relational construct. Adult Education Quarterly, 38(3), 150-181.
- Pratt, D. D. (1988b). Three Perspectives on Effective Teaching. Proceedings of the 28th Annual Adult Education Research Conference, Calgary, Alberta.
- Pratt, D. D. (1989). Three stages of teacher competence: A developmental perspective. In E. R. Hayes (Ed.), New directions for continuing education, no. 43 (pp. 77-87). San Francisco: Jossey-Bass.
- Pratt, D. D. (1992). Conceptions of teaching. Adult Education Quarterly, 42(4), 203-220.
- Ramsden, P. (1992). Learning to teach in higher education. London: Routledge.
- Renstrom, L., Andersson, B., & Marton, F. (1988). Students' conceptions of matter. Gothenburg Sweden: University of Gothenburg, Department of Education and Educational Research.

- Robertson, E. (1987). Teaching and related activities. In M. J. Dunkin (Ed.), The International Encyclopedia of Teaching and Teacher Education (pp. 15-18). Oxford: Pergamon Press.
- Rokeach, M. (1968). Beliefs, attitudes, and values: A theory of organization and change. San Francisco: Jossey-Bass.
- Roszman, M. E. (1977). Awareness of adult characteristics by the faculty in the Maricopa County community college district. Dissertation Abstracts International, 38, 1824A.
- Rubenson, K. (1982). Adult education research: In search of a map of the territory. Adult Education, 32, 57-74.
- Rubenson, K. (1985). Adult education research. In T. Husen & T. N. Postlethwaite, (Eds.), International encyclopedia of education: research and studies, (Vol. 1, pp. 169-173). Oxford: Pergamon Press.
- Säljö, R. (1979). Learning about learning. Higher Education, 8, 443-451.
- Säljö, R. (1988). Learning in educational settings: Methods of inquiry. In P. Ramsden (Ed.), Improving learning: New perspectives (pp. 32-48). London: Kogan Page.
- Samuelowicz, K. & Bain, J. D. (1992). Conceptions of teaching held by academic teachers. Higher Education, 24(2).
- Sanders, D. P. & McCutcheon, G. (1986). The development of Practical theories of teaching. Journal of Curriculum and Supervision, 2(1), 50-67.
- Shores, W. L. (1985). Study of interactions of adult learners with learning situations. Unpublished doctoral dissertation, University of British Columbia, Vancouver.
- Shulman, L. S. & Elstein, A. S. (1975). Studies of problem solving, judgment and decision making: Implications for educational research. In Kerlinger, F. W. (Ed.), Review of research in education, Vol. 3. Itasca, IL: Peacock.
- Smith, B. O. (1987). Teaching: Definitions of Teaching. In M. J. Dunkin (Ed.), The International Encyclopedia of Teaching and Teacher Education (pp. 11-13). Oxford: Pergamon Press.
- Smith, D. H. (1989). Adult and continuing education and human resource development--Present competitors, potential partners. Lifelong Learning: An omnibus of Practice and Research, 12(7), 13-17.
- Snelbecker, G. E. (1974). Learning theory, instructional theory, and psychoeducational design. New York: McGraw-Hill.

- Sork, T. J. (1980, May). Meta-research in adult education: An historical analysis and critical appraisal. Paper presented at the annual Adult Education Research Conference, Vancouver, British Columbia.
- Stalker, A. J. (1989). Reframing the issue of participation in adult education: An interpretive study. Unpublished doctoral dissertation, University of British Columbia, Vancouver.
- Staton, T. F. (1960). How to instruct successfully: modern teaching methods in adult education. Toronto: McGraw Hill.
- Stephens, M. D. (1985). Teaching methods for adults. In T. Husen, & T. N. Postlethwaite (Ed.), The International Encyclopedia of Education Research & Studies (Vol. 9). Oxford: Pergamon Press.
- Suanmali, C. (1981). The core concepts of andragogy. Dissertation Abstracts International, 43, 341A.
- Tennant, M. (1986). An evaluation of Knowles' theory of adult learning. International Journal of Lifelong Education, 5, 113-122.
- Tennant, M. (1988). Psychology and adult learning. NY: Routledge.
- Touchette, C., Beder, H., Carrea, N., & Rubenson, K. (1983, April). From belief to knowledge about the teaching of adults. Proceedings of the Annual Adult Education Research Conference (pp. 276-280). Montreal, Quebec, Canada.
- Ulichny, P. D. (1989). Exploring a teacher's practice: Collaborative research in an adult ESL reading class. Dissertation Abstracts International, 50, 891A.
- Walther, R. H. (1972). ASTD members--their perceptions and training goals. In J. A. Niemi, S. M. Grabowski, & E. A. Kuusisto (Eds.), 1976, Research and investigation in adult education register (1973-1975). DeKalb, IL: ERIC Clearinghouse on Career Education. (ERIC Document Reproduction Service No. ED 179 761)
- Watkins, K. E. (1989). Business and industry. In S. B. Merriam & P. M. Cunningham, Handbook of adult and continuing education (pp. 422-435). San Francisco: Jossey-Bass.
- Welborn, R. B. & Conti, G. J. (1986, May). The influence of learning style and teaching style on achievement among nontraditional health professional students. Proceedings of the Annual Adult Education Research Conference (pp. 303-307). Syracuse, NY.
- Wexley, K. N. (1984). Personnel training. Annual Review of Psychology, 35, 519-551.
- Williams, E. B. (1984). Teaching styles of adult educators. Dissertation Abstracts International, 45, 3520A.

APPENDICES

Appendix A Letter to Members of ASTD and Return Card

Please allow me to introduce myself. I have been a member of the Puget Sound Chapter of ASTD since 1985 and am currently pursuing a doctorate in adult education at the University of British Columbia, Vancouver, Canada (although I live in the Puget Sound area). Prior to my doctoral studies, I worked in adult education for eighteen years. As part of the research for my dissertation, which is titled Conceptions of Teaching in the Workplace, I am interested in interviewing instructors who teach or train adults in the workplace about their experiences of teaching. I hope that you will consider whether or not you fit the criteria for my research sample and agree to be part of my study.

I am looking for members of ASTD who are presently instructing adults in a workplace setting (or have done so within the last year). You can be teaching any subject matter, but it has to be recent enough that you can talk to me about your instructional experiences in terms of specific content. Any workplace setting is fine, however I am not currently interested in interviewing instructors who teach only on college campuses or instruct solely in a one-to-one manner. The length of time you have taught is not a concern.

The purpose of my research is to discover the different understandings of teaching which are held by instructors who teach or train in workplace settings. Other researchers have found that different people interpret situations in a variety of ways, and that the decisions they make in those situations are related to the way in which they understand it. This will be useful information for trainers of instructors, but it should also be helpful for instructors themselves to reflect on their own understandings.

If you fit the criteria noted above, please consider giving one hour of your time to this research project. The interview will consist of open-ended questions that will help you focus your thoughts about teaching. I hope this will be more like a conversation than a formal interview. I would like to audio tape the interview so that I can concentrate on our conversation rather than on taking notes. After I have analyzed the data from your interview, I may want to speak to you again by phone for about fifteen minutes to confirm my interpretation of your remarks. What you say to me will be kept entirely confidential by the use of pseudonyms and the numerical coding of data, and the data will be destroyed at the completion of the study.

You will receive a summary of the study once it is completed and if you are interested, I will be happy to meet with you again at that time to discuss the understandings of teaching that I have discovered.

You are free to refuse to participate or withdraw at any time and your decision to do so will not be held against you in any respect. If at any time you have any concerns or questions, please feel free to contact me locally at 488-1728 or my advisor, Dr. Tom Sork at 604-228-5702. A card is enclosed for your response. Please return it to me by ______. If you agree to participate, I will contact you by phone to schedule an appointment.

Return Card

- _____ I am able to be involved in a one hour interview about teaching adults.
_____ I am not able to be involved in a one hour interview about teaching adults.

You may call me at _____ ; the best time (phone no.) is _____.

(Name - Please print)

Appendix B

Consent Form

I am willing to participate in the study Conceptions of Teaching in the Workplace. I understand the purpose of this study is to discover the understandings of teaching which are held by instructors who teach or train in workplace settings.

I understand that participation in the study involves one tape-recorded interview, conducted at a place and time of my choosing, lasting approximately one hour, plus a possible follow-up phone interview of approximately fifteen minutes to respond to the researcher's interpretation of my remarks, for a total of one hour and fifteen minutes.

I understand that the confidentiality of my responses will be maintained through numerical coding. I understand that pseudonyms will be used in the final document to refer to individuals or places. I understand that all data will be destroyed once the study is completed.

I understand that I can refuse to answer any questions and to withdraw at any time from the study and that such decisions will not be held against me in any way. I understand that I can call the researcher, Jane Beno, at 488-1728 if I have any questions or concerns.

I have received a copy of this consent form and the letter of introduction outlining the nature of the study.

Signature of participant

Date

Signature of researcher

Date

Appendix C

Interview Schedule and QuestionnaireInterview Schedule

I. Introduction

- A. Determine course to be discussed.
- B. Briefly describe course

II. Questions

A. When you knew you were going to teach this course, what did you think about?

1. Level one: description of activities

- a. How did you plan? (select content, select processes, order/organize content/processes)
- b. Relate to learners, outcomes, context

What are all the elements of the instructional situation that you thought about when you made these decisions? How did each one affect your decision?

- c. What did you want to know about the learners? (attitudes, needs, conceptions/experience, differences, ways of learning)

How did you use this information? How did it affect your teaching?

- d. How does the organization affect your teaching? (goals, policies, resources/restraints, demands, expectations)

- e. Teaching: gifts/skills, role, challenges

How have your skills changed since you began instructing? Which is the most important skill? Why?

- f. Do you always teach this way? (regardless of content, learners, context)

- g. How would you define teaching?

3. Level two: intent (in conjunction with Level One)

- a. What were you trying to accomplish?

- b. ~~How did you know when you accomplished it?~~

- c. How do you evaluate your instruction?
- 4. Level three: core values (in conjunction with levels one and two)
 - a. Why is that important?
 - b. What guides your thinking about instruction? (metaphors, mottoes)
 - c. What are you committed to that leads you in that direction? (values)
 - d. How has your thinking about instructing changed since you first began this work?

B. Generic Questions

- 1. What do you mean...
- 2. How does that affect (planning, teaching, relating, learning)...
- 3. Please give examples...
- 4. How did you deal with...
- 5. What did you learn from...
- 6. How did the learners react...
- 7. This seems really important, but I don't know what to ask about it. Could you just talk a little bit more about it?
- 8. Silence

C. FINAL QUESTION

Is there anything else you'd like to tell me about teaching?

Questionnaire

1. _____
First Name Last Name
2. _____
Street address City Zip
3. _____ 4. Best time to call _____
Day phone PM phone
5. Age: 20-24 45-54 6. Gender: Female Male
 25-34 55-64
 35-44 65+
7. Education - Highest level attained:
High School College Graduate work

If you graduated from college, what was your degree?

Have you had any training (course, workshop) in the instruction of adults? _____ If yes,
approximate number of sessions _____

8. Work Experience:

Current title _____

Place of employment _____

What percentage of your work time is spent instructing adults? _____

How many years have you instructed adults? _____

Have you had any other teaching experience? _____

If yes, at what level? _____

9. Are you interested in a follow-up meeting to discuss the findings from this research
project? _____

If yes, with the other interviewees? _____ one-on-one? _____

THANK YOU VERY MUCH FOR YOUR TIME AND COOPERATION