An Investigation of the Impact of Learning Theory on Training and Conditions of Training in the Corporate Environment

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AN INVESTIGATION OF THE IMPACT OF LEARNING THEORY
ON TRAINING AND CONDITIONS OF TRAINING
IN THE CORPORATE ENVIRONMENT

by

Carolyn Collins-Bondon

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Faculty of The Graduate College
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The purpose of this study was to determine the extent to which knowledge and use of learning theory are reflected in corporate training programs. The literature review was concentrated in three areas, namely: (1) nature and quality of training programs, (2) theories of learning, and (3) training programs and learning theory. That literature indicated that references to learning during training generally dealt with logistics, or teaching and instructional methods (lecture, self-instruction, or on-the-job training).

The investigator posited that training specialists need to be attuned to trainee needs and to provide optimum opportunities for addressing those needs. Instead of the hypotheses originally proposed, a decision was made to use a research question, which was "To what extent are knowledge and use of learning theory reflected in the nature of training programs?" The writer proceeded to develop an interview questionnaire and an analysis checklist instrument based on principles of adult learning, or "andragogy." Data were gathered from a telephone survey of representatives of 16 "Fortune 500" companies located throughout the United States. Those representatives provided responses to specifics of how the
The analysis provided clear evidence that in the 16 companies investigated, trainee participation varied from "almost none" to "modest" in the assessment, planning, implementation and delivery, and evaluation of training programs. Of those four elements of training programs, planning was the one in which there was least trainee participation reported.

The study seemed to indicate that even the companies that reported greatest trainee participation could hardly be classed as trainee oriented. However, several of the companies, based on the writer's judgment, the interview transcripts, the profile of the "typical" training program, and in-depth descriptions of the 16 company training programs, could be classed as definitely organization oriented. A major overall conclusion was that all of the companies need to be cognizant of, and demonstrate more use of, andragogical principles in their training programs.
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Carolyn Collins-Bondon
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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Training has been a significant factor through the years in the ability of people to master a skill and to pass it on from generation to generation. Training, according to Miller (1979),

is an appropriate activity when there is an actual deficiency in the job performance of human beings. This can happen when new jobs are being created, when old jobs will be performed in new ways, or when existing jobs are being performed in deficient ways by members of the present workforce. (p. 1)

Miller further stated, "the basic purpose of training is to shape or reshape the behavior pattern of an individual" (p. 7). Quite often the trainer's ability to successfully change the behavior of the trainee is dependent upon other factors such as motivation, learning ability, instruction methods, learning environment, and the perceived importance of the reasons for training.

The purpose of training is to address needs, to alleviate problems within the organization, and to upgrade skills and abilities of the trainee. According to Warren (1969), "the responsibility of the training function goes beyond the development of training programs; it must achieve the desired behavior change in individuals or groups . . . must also search out alternatives in selecting the best course for meeting organization goals" (p. 11). Warren (1969) went on to say "the behavior change brought about by the training function must be measurable in terms of the organization's requirements" (p. 8).
The trained behavior must also be transferable to the job. "The results of experimentation with the learning process provide the training function with specific and effective tools for bringing about behavior change" (Warren, 1969, p. 14). An organization often undertakes training as the appropriate activity for meeting organizational needs, hoping for effective productivity. Trainers and program designers should be able to determine whether an observable behavioral change, which training is supposed to accomplish, can be: (a) measured and (b) transferred to the actual work situation.

Are all trainees expected to learn the same way at the same rate? Is it possible that decisions about planning and evaluating training programs do not incorporate learning theory? How well do the training programs reflect what is known about learning theory?

This study was designed to address these questions.

Statement of the Problem

The problem investigated in this study was: To what extent are knowledge and use of learning theory reflected in the nature of training programs?

Rationale for the Study

This and Lippitt (1966) stated, "training directors often talk about the learning theory that underlies their training. However, most of us do not have a good understanding of learning theories and their application to our training efforts" (p. 3). Hence, the training and development specialist is placed in a position of

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having responsibility for assessing organizational needs and designing training programs while having little knowledge of how people learn. According to Laird (1978):

Training and development designers need some learning theory upon which to base the activities they specify in the learning systems they create...serve as change agents for the client organizations--and to produce change, they need a theory about learning. For after all, change begins with learning that there can be a better way. (pp. 113-114)

The present writer suggests that personnel involved in training seem to be concerned with the logistics of training (i.e., desired outcomes, learning sites, learning methods, and learning groups) more than with the actual process of learning. Training in many cases can be the difference between growth and productivity on one hand or stagnation and loss of productivity on the other. Consequently, in the role of training, program personnel have an obligation to trainees and to the corporate establishment to understand how learning takes place, and "the terminal objective is to help achieve the goals of the organization through optimum use of manpower" (Johnson, 1976, p. 2-1).

This and Lippitt (1966) stated, for example, that a training director may say:

"My theory of learning is that employees learn best when placed in small discussion groups at the training site removed from the plant." What is not clear to most training directors is that the variables identified...result in a myriad of devices and techniques that stem from, and are most effectively utilized by, a given learning theory. In and of themselves they are not learning theory. (pp. 3-4)

The need does exist for learning theory clarification prior to

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establishing a training program. The training and development spec-
ialist often is someone who has ascended the company ladder after
many years of service, but who has not had an educational back-
ground. Such a person may not understand the psychology of learning
or how training can best address trainee needs. Bigge and Hunt
(1962) defined "learning as the process by which one changes or de-
velops new insights or understandings" (p. 175). It seems essential
to this writer that training programs be designed to accomplish such
learning.

Purpose of Study

The purpose of this study was to determine to what extent
knowledge and use of learning are reflected in training programs.
According to writers in the field, those programs that reflect high
knowledge and use of learning theory are more effective than those
having less theory basis. If later studies result in findings that
this is so, then perhaps a persuasive case can be built for having
all training programs based on learning theory.

According to Stokes (1966), "the successful instructor not only
understands how people learn but puts his knowledge to practical use
in setting up his program" (p. 79). How well do training programs
reflect learning theory? Do they take into consideration how adults
learn?

It is known that often training is used in organizations to
correct ills or enhance production. Economic gains or losses can
depend on the level of proficiency the employee has; therefore,
trainees need to be the recipients of training more tailored to improving their proficiency.

Many times the basis for developing training programs is to meet certain corporate objectives. However, training perhaps could be better tailored to exhibit trainer awareness of how adults learn and what can be done to facilitate learning to the optimum level. The trainer, the trainee, and the corporation might all experience satisfaction if all can reach their goals.

Limitations of the Study

Four major limitations were perceived for the study being reported here:

1. No evaluations were done on the effectiveness of training programs. If the training programs conducted by the companies included in the sample vary widely in the extent to which they reflect knowledge and use of learning theory, a logical next step would be to see if those that were highly reflective of learning theory were indeed better than those that did not reflect knowledge and use of theory.

2. The organizations included in the sample were selected from among the "Fortune 500" companies. Since such companies might be presumed to have some of the most effective training programs in the country, that selection criterion may have biased the results.

3. The instrument used was developed for this study, thus was not checked for reliability. The only measure of validity was the collective judgment of the panels of experts.
4. Training specialists who were without educational backgrounds could have possibly been hampered by not having a clear understanding of adult learning theories and the principles of their application. This could have caused the responses to be based on information other than that relating to learning theory.

Significance of the Study

Writings indicating the importance of learning theory to training do exist. Several were found advocating the actual use of learning theory in designing training programs. Nadler (1980) stated, "the manager should be able to ask the HRD (Human Resource Development) staff some questions about learning theories and how they apply to the instructional strategies" (p. 97). Nadler further stated that the HRD staff should be able to answer the following questions:

Does the HRD staff:

- Accept the concept of andragogy (adult learning) as different from pedagogy (child learning)?
- Follow the behaviorist approach to learning?
- Subscribe to individual learning, rather than group learning, and under what conditions?
- Use self-directed learning, and when?

These are only a few of the questions that a manager should be prepared to ask. (p. 97)

Stokes (1966) said that in "job and workplace training":

The job instructor can make practical use of the learning process. It will help him to set up a program which is sensibly arranged and meaningful to the learner. This is the prime requirement of a successful program.

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If he will use his knowledge of the learning process in this way, the instructor is less likely to be dis-couraged by the fact that some of his trainees are comparatively slow to learn or that they seem to stop making progress. He will recognize that both are normal and to be expected. He will also have a better idea of what to do to help the learner in either situation.

The instructor who realizes that learning is a natural process which takes in all individuals, but at different rates, will find it easier to do an effective job. He will learn to match his teaching skill successfully against the particular learning patterns of his students. (p. 82)

Both Stokes (1966) and Nadler (1980) indicated the importance of learning theory to training-program planning and training-program implementation. However, most of the training literature examined related to practical methods of training.

King (1964) stated: "Much old fashioned training is based on the adage that practice makes perfect. . . . But recent scientific exploration of the learning process has exploded the fallacy of this principle" (p. 113). Heyel (1980) stated that "perhaps the first major task of the teaching-learning transaction is to help the learner learn different ways of learning" (p. 108). He further concluded that his research and experience with processes of learning supported the assumption:

That the teaching-learning process is a human transaction involving the teacher, learner, and learning group in a set of dynamic interrelationships. Teachers and learners engage together in a complex process of exploration and diagnosis of needs for and resistances to learning and change, of experimentation and fact-finding; of testing and planning for utilization of learning and change in the life of the individual. (p. 107)

The present investigator believes as a result of her education and review of the literature, that all training and program
development must be attuned to learner goals and objectives as well as to organizational objectives. For training techniques to be beneficial for the trainee and for the corporation, trainers need to be cognizant of the many factors that are involved in learning. One way of achieving this seems to be through basing program development on learning theory.

Organization of the Study

In this chapter, the statement of the problem, the rationale for the study, the purpose of the study, its limitations, and its significance were presented. In Chapter II, the literature regarding: (a) the purposes and quality of training programs, (b) theories of adult learning and training, and (c) training programs and learning theory are reviewed. In Chapter III, the research design, instrumentation, and methods of collecting and analyzing data are presented. In Chapter IV, findings are exhibited; and in Chapter V the study is summarized, conclusions are drawn, and recommendations are made.
CHAPTER II

REVIEW OF RELATED LITERATURE

Before the variables of the problem were narrowed to the present descriptors, three computer searches were conducted, two of them through the Western Michigan University Educational Resource Center. In the first, the descriptors of "staff development," "professional training," "trainers," and "achievement and success" were used. This search resulted in a listing of 40 titles, of which 25 were usable. The second search resulted in 37 titles, of which 19 were usable, with the following descriptors having been used for the search: "leadership training," "management development," "professional development training," and "performance factors and success."

The third search took place through use of the Business Library facilities, and the descriptors used were: "training," "training needs," "program development," "professional development and learning," "learning theory," and "trainee needs." This search resulted in a listing of 137 titles, of which 68 were usable.

The problem as presently stated indicated a clear need for review of literature in three areas, namely: (1) the nature and quality of training programs, (2) theory of learning (with particular emphasis on adult learning), and (3) the relationship, if any, between nature and quality of training programs and their bases in theory of adult learning.
The Nature and Quality of Training Programs

King (1964) stated:

Most supervisor training is packaged. This means that the training program is standardized. It is not tailored to the requirements of supervisors and management. . . .

There is little doubt that many administrators of packaged training are aware of its weaknesses, and that they themselves feel frustrated as a result. They know that their programmes are based largely on general principles and techniques. They do what they can to improve their training methods which are often highly sophisticated. But they are worried about the difficulties which supervisors meet in applying these principles and techniques to their own shopfloor and organizational situations. They are also faced with the problem of assessing the effectiveness of many aspects of supervisor training. (pp. 93-94)

This quotation implies, at least to this writer, that the average training program is not concerned with individual interest, but is presented for organizational reasons. Fisher (1979), as well as Wexley and Latham (1981), supports King as indicated by the following quotations. Wexley and Latham pointed out how companies purchase packaged "programs" on the recommendation of other individuals in different organizations, and stated: "Organizations seldom rigorously evaluate the effects of the programs they purchase. They simply go by how much the participants liked the session, and how much they 'feel' it will benefit them" (p. 7). Fisher quoted Dr. Stern, consultant for Focus Company, as saying "it is rare to find a pre-packaged program which fits all of your requirements and is specifically aimed at the target audience in your organization" (p. 34).
Training personnel have an obligation to the trainee, and the organization, to design training programs that will address needs and also be relevant to all involved. Nadler (1980) pointed out that:

It is the responsibility of the HRD unit to fine-tune the objectives relative to the particular learners who are in the training program at the time. It is the responsibility of the manager to periodically review the objectives to determine if they are still relevant to the policy, practices and procedures in the unit. (p. 131)

Stockard (1977) outlined the following suggestions for educational specialists, training specialists, and program developers:

It is now generally agreed that people learn—
At different rates.
Through different media.
Under different physical conditions.
Under different degrees of guidance.
From each other. (p. 15)

Stockard (1977) further stated:

Traditional instruction features lectures and lecture-discussions. Modern instruction is highly interactive, participative, and experiential. It is a learning-by-doing-under-trained-guidance system. Learning at different rates suggests multiphased teaching. Learning through different media points to multimedia teaching. Learning under different physical conditions can be translated into a plan for staging part of the teaching as OJT (On Job Training), some in the classroom, some in a laboratory or workshop, and even part of it as live-in experiences in the living quarters and at the dining-room table. Learning under different degrees of guidance means providing the setting for learning in large groups, tutorially, and from the supervisor during the OJT phase. Learning from each other dictates the use of such modern experiential methods as role playing, videotaping, analysis of critical incidents, and the like. (p. 15)

Stockard (1977) then made reference to the standardization of training:
Large private enterprises, or public service organizations such as the federal government, strive constantly for a program of standardization and interchangeability. . . . The procurement system seldom if ever asks the training and development specialist what he or she needs. It continues to grind out products or designs and unit cost gauged only by what the traffic will bear. This results in excessive and inequitable expenditure of vital resources. (p. 56)

Schiff (1979) explained, "when a company has a training department, it's primarily concerned with the activities of teaching rather than with learning" (p. 61).

Saint (1974) said, "Many training efforts are not much more than the offering of courses. They are often disconnected efforts, separate from the work situation, and fail to carry over into the productive processes of work" (p. 162). Saint's writing suggested that managers or training specialists prefer to spend time and effort where it will be more recognized. This infers that training does not bring about the "more visible rewards" that other corporate feats might bring about. She further stated:

Managers often send subordinates to training courses which they themselves do not understand the need for, nor do they want their subordinates to utilize the newer concepts. . . . Underlying the precariousness of training is a lack of understanding of the function of learning within an organization. (p. 163)

Training and training program development within the corporate environment many times are prepackaged and standardized. However, that it would benefit the corporation to diagnose training and organizational needs and plan accordingly seems apparent. While the training program is being designed, knowledge regarding learning theories and how adults learn should be incorporated so as to best
serve the purposes of the individual trainees.

Theories of Learning

A very general and outdated statement that indicated the broad scope and lack of specificity of learning theory was "There are several theories of learning supported by various experimental evidence" (Hilgard, 1948, p. 75). More recently, Rogers (1969) pointed out that:

1. Human beings have a natural potential for learning;
2. significant learning occurs when the subject matter is relevant to the student's purposes;
3. learning which involves a change in self-organization is threatening and tends to be resisted;
4. self-threatening learnings are most easily perceived and assimilated when external controls are at a minimum;
5. much significant learning is acquired through doing;
6. learning is facilitated when the student participates responsibly in the learning process;
7. self-initiated learning which involves feelings as well as intellect is more lasting than other kinds of learning;
8. independence, creativity, and self-reliance are facilitated when self-criticism and self-evaluation are basic and evaluation by others is secondary; and
9. the most socially useful learning consists in learning the process of learning, developing a continuing openness to experience, and incorporating into oneself the process of change. (pp. 157-163)

Several of these facets of learning were supported by Foy (1977), who stated:
Mature people learn best when they are directly involved in real problems to which answers are not known.

One's own experience, together with that of others, can be examined to help find solutions to major problems.

Learning by doing is particularly effective when a problem is tackled in an unfamiliar situation. (pp. 158-159)

This and Lippitt (1966) described these types of learning theories:

**Behaviorist.** These theories hold that learning results from the rewards or punishment that follows a response to a stimulus. These are the so-called S-R Theories.

**Gestalt.** These theorists believe learning is not a simple matter of stimulus and response. They hold that learning is cognitive and involves the whole personality.

**Freudian.** Development and the kind of re-education that goes on in psychotherapy.

**Functionalist.** These seem to take parts of the theories and view learning as a very complex phenomenon that is not explained by either the Gestalt or the Behavioral Theories.

**Mathematical.** To these researchers, learning theories must be stated in mathematical form.

**Current Learning Theory.** These seem to run the range of modifying Behavioral Theories, accommodating two pieces of both theories, assuming that training involves the whole man—psychological, physiological, biological, and neurophysical. (pp. 5-8)

Laird (1978) provided these further statements about learning theories:

**Sensory stimulation:** The instructor presents the motivation. The theory is that the more effective (or sensory) the stimulus, the more intense the motivation-response.

**Reinforcement theory:** The instructor presents the original stimulus. After that, there is mutual exchange of adapted stimuli. Hopefully this exchange is punctuated by positive reinforcement in which the learner and
the instructor share the desire to offer happy consequences for mutually beneficial behaviors.

Andragogy and facilitation. In a two-way climate, the goals are determined or examined. Feelings as well as cognitive values of the learners become actual materials of the learning. Removal of external threats and identification of resources for enabling change become prime skills of the instructor. (p. 126)

Mezirow (1981) examined a critical theory of adult learning and education and he then outlined three primary cognitive interests—the technical, the practical, and the emancipatory. He further stated "each learning domain suggests . . . a different mode of personal learning and different learning needs. These imply three different functions for adult education concerned with facilitating such learning" (p. 4). He continued, "each of the three distinct but interrelated domains—controlling and manipulating the environment; social interaction and perspective transformation—involves different ways of knowing and hence different learning needs, different educational strategies and methods" (p. 21).

Laird (1978) provided these statements, also about learning designs for adults:

Andragogic learning designs involve a number of features which recognize the essential maturity of the learner:

They are problem-centered rather than content-centered.

They permit and encourage the active participation of the learner.

They encourage the learner to introduce past experiences into the processes in order to reexamine that experience in the light of new data . . . new problems.

The climate of the learning must be collaborative (instructor-to-learner and learner-to-instructor) as
opposed to authority oriented.

Evaluation is a mutual activity between learner and instructor.

Evaluation leads to reappraisal of needs and interests and therefore to redesign and brand-new learning activities.

Activities are experiential, not "transmittal and absorption" as in standard pedagogy. (p. 123)

Michalak and Yager (1979) suggested that not only must the student and instructor assume responsibility for what, when, how, and to whom information is taught, but also--andragogically as opposed to pedagogically--that:

- The student accepts the content based on evidence, not blind faith.
- The student is active rather than passive.
- The student has experience in the subject and brings that experience into the classroom.
- The student has individual needs that must be addressed.
- The student evaluated himself or herself.
- Immediate application of the concepts is common.
- Discussion and experimentation are commonly used teaching methods.
- Attendance is optional. (p. 74)

They further stated:

If the adult student sees that effort expended in the classroom will lead to learning, learning will lead to an application of the concepts to the job, the application will lead to success, and that recognition of that success and subsequent reward will follow, then, we will have a motivated student. (p. 75)

Lippitt, This, and Bidwell (1971) quoted Knowles as saying:
The new insights into the nature of the internal learning process have led to a shift in the definition of the role of the teacher from the traditional one of the transmitter of subject matter to one of procedural and resource person in the process of inquiry. The art of teaching accordingly has shifted in emphasis from lecturing, lesson planning, and testing toward involving the learners in diagnosing, planning, conducting, and evaluating their own learning. (p. 72)

The review of learning theories as they apply to adults seemed to suggest to the investigator that a basic premise could be stated, namely: adults learn differently than do children. Adults bring a wealth of experience with them to each learning situation. Adults will function better, become more motivated, and learn more readily if they are allowed to participate in the planning, in the implementing, and the evaluating of a training session.

Training Programs and Learning Theories

McGehee and Thayer (1961) stated: "An understanding of learning theory and principles is essential to the critical evaluation of techniques used in modern industrial training" (p. 129). They further suggested that the "training specialist familiarize himself with these theories . . . as a source of sound ideals concerning planning and directing industrial training" (p. 129). This advice might be applied to professional and technical training as well as to industrial training, because training takes place in numerous segments of our society.

Heyel (1980) was of the opinion that:

With today's emphasis on employee and executive-development programs, which for most participants often call for changes of ingrained habits of thought, it is important
that management be aware of the complex motivational, perceptual, and emotional forces present in the learning process. Also important is an awareness of the conditions which must be present before the individual can learn and change. (p. 107)

McGehee and Thayer (1961) emphasized those aspects of learning theory and principles that seem particularly pertinent to industrial training, including:

1. The nature of the learning process
2. Motivation and learning
3. Factors affecting learning efficiency
   a. Practice and conditions of practice
   b. Individual differences
   c. Nature of material to be learned
4. Transfer of training and maintenance of behavior. (p. 130)

Nadler (1980) stated: "The focus of training is on the job the employee has now. Such learning experiences are concerned with actual job performance" (p. 23). Thus it seemed, according to that writer, that the trainer's concern should be with learning theory for adults; with andragogy.

Knowles (1980) further stated:

The important implication for adult-education practice of the fact that learning is an internal process is that those methods and techniques which involve the individual most deeply in self-directed inquiry will produce the greatest learning. This principle of ego-involvement lies at the heart of the adult educator's art. In fact the main thrust of modern adult-education technology is in the direction of inventing techniques for involving adults in ever-deeper processes of self-diagnosis of their own needs for continued learning, in formulating their own objectives for learning, in sharing responsibility for designing and carrying out their learning
activities, and in evaluating their progress toward their objectives. (p. 56)

Knowles also posited the following four assumptions regarding adult learners:

As individuals mature:

1. Their self concept moves from one of being a dependent personality toward being a self-directed human being.

2. They accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning.

3. Their readiness to learn becomes oriented increasingly to the developmental tasks of their social roles.

4. Their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, their orientation toward one of performance-centeredness. (pp. 44-45)

Davies (1981) supported Knowles in his statements by outlining the following approach, which deserves more attention from educators and trainers.

A different approach is one that starts with the perceptions, the lived experience, the being of the learner. Learning needs to develop out of the current experience of the learner and build from it. . . .

The lived experience approach does not discredit the usefulness of other approaches, but indicates that the study of learning should be based on the experiences—the emotions, feelings, thoughts and body state of the learner. (p. 228)

Thus, according to Knowles (1980), Davies (1981), and others, it is reasonable to expect that training address the needs of the individual as well as the needs of the organization. Nadler (1982) suggested the importance of identifying learning needs, and he
further stated:

People are different. One of the purposes of a good learning program is to bridge the differences between the person and the job so the individual can perform in a way that meets the organizational goals. At the same time, the goals of the individual cannot be overlooked. When individual goals are in conflict with organization goals, the training or education can be a waste of valuable resources. (p. 82)

Karnes, Ginn, and Maddox (1980) suggested:

A wide range of factors which influence the learning of adults must be considered in the planning of adult education programs. . . . The factors are divided into five areas: interests, physical and psychological states, life problems, needs, and the schedule of adults. (p. 1)

Also emphasized by Karnes et al. (1980) were other factors that affect adult learning. They stated:

Various factors contribute to the formation of adult interest. The background of the adult including past experiences, education, and social class greatly influences a person's interests. . . . Other components influencing adult learning may be classified as physical and psychological. While an adult can learn as much as a child, he requires a longer time period to learn because the adult's reaction and performance speeds have been reduced. Psychological factors to be considered in adult learning include attitudes, values, satisfaction, and rewards. (p. 1)

Saint (1980) indicated that, "When learning is part of the action needs to get work done or to solve problems, individuals are motivated to learn through accepting and fulfilling responsibility" (p. 96).

Emphasized by Wexley and Latham (1981) was the necessity for trainers to determine needs systematically. They further posited:

People must learn to systematically identify training needs, build content into programs based upon job information, and evaluate training in terms of the objectives for which it was designed. Only then will the field of
training and development cease to be an artform dependent upon the persuasiveness of its advocates, and become a science that is replicable by others. (p. 8)

Lefton and Buzzotta (1980) were of the opinion that:

A fundamental part of any trainer's job is to create an environment in which people want to learn, to teach in such a way that they retain what they learn, and to make it likely that, after leaving the classroom, they'll use what they learned . . . .

Successful training is, to a very large extent, individual training. It depends upon the ability of one trainer in one place to meet the different needs of different trainees. (pp. 12-13)

Numerous writers lamented the fact that, too often, trainees are grouped together and trained as if they all learn at the same rate, under the same conditions, and in the same way.

This investigator believes, as the quoted writers do, that the manner in which adults learn and the many factors that contribute to learning often have been overlooked or possibly not taken into serious consideration in the planning of training programs. Kidd (1981) concluded, "We do not systematically monitor, learn from, apply or use that considerable corpus of research about learning theory and practice that is being generated" (p. 55). Factors such as those listed above could and should make differences in the learning environment. Training specialists who are not aware of the many facets and needed applications of learning theory possibly could be shortchanging their trainees as well as their organizations.
Summary

Through the years training has been seen by various "authorities" as an important factor in shaping or reshaping the behavior patterns of individuals. The nature of a training program generally is either: (a) for alleviating problems within the organization, (b) for upgrading skills and abilities of the trainee, or (c) for doing both. This study was based on what writers in the field have said about the extent to which the use of learning-theory knowledge should be reflected in the nature of training programs.

The problem as stated indicated a clear need for review of literature in three areas, namely: (1) the nature and quality of training programs, (2) theory of learning (with particular emphasis on adult learning), and (3) relationship, if any, between the nature and quality of training programs and their bases in theory of adult learning. That review was done and reported.

It was apparent from the literature that training directors who read in their field are acquainted with learning theory, because literature on the importance of learning theory to training does exist. The present investigator believed, as a result of the literature review, that training and program development should be attuned both to learner goals and objectives and to organizational goals and objectives. The study was designed to ascertain whether development was so attuned.

The present writer read about the following learning theories and principles of learning: Behaviorist, Gestalt, Freudian,
Functionalist, Mathematical, Current Learning Theory, and Andragogy. However, the main emphasis in this study was on principles of adult learning and adult learning theories.

 Writers regarding andragogy and principles of adult learning seemed to emphasize having those who develop training programs capitalize on learner maturity and independence, as opposed to assuming that trainees have the immaturity and dependence of child learners. For example, McGehee and Thayer (1961) stated that "an understanding of learning theory and principles" is very important to overall training. Adult learning theorist Knowles (1980) posited four important ideas and discussed the need for including them in planning any types of adult programs, namely: self-concept, experience, social roles, and immediacy of application.

 In Chapter III, the design and methodology used in investigating the stated problems are described. Ways in which data were collected and analyzed are also reported.
CHAPTER III

DESIGN AND METHOD

This investigator believed, from the review of the literature, that matters such as how adults learn, dynamics of group interaction, conditions of training, trainee participation or lack of it, prior life-experience, subject matter, and session relevance are important to the success of a training program. This study explored the use of learning theory and the reflection of learning theory knowledge in training programs. The present writer believes that knowledge of the aforementioned characteristics and their relationships to training are essential to training programs designed for optimum learning.

Population and Sample

The "Fortune 500" companies constituted the population for this study. From the population, a sample of 40 companies, for each of which a representative had indicated that it provided either in-house and/or out-of-house training programs, was selected. Those corporations are located throughout the United States. However, data were collected through a telephone survey; consequently, geographic distances were not a consideration.

A table of random numbers was used to select 40 companies and 15 alternates, although the list of alternates was ultimately extended to 45. A selected individual in each company was sent a letter that asked, "Do you operate a training or human resource
development program for mid and upper level managers?" Each company for which the answer was "yes" was retained for the sample. Any for which the answer was "no" was replaced by the top alternate on the list. Sixteen of the 85 companies that reported having in-house training programs for mid to upper level managers agreed to participate in the telephone survey (see Questionnaire, Appendix A). Those 16 companies that participated are listed in Appendix B.

Research Question

Two hypotheses, derived from the review of literature, were originally proposed for investigation. However, when a change in methodology was decided on (see p. 29), the decision was also made to discard the hypotheses in favor of answering, in descriptive terms, the basic research question as found in the "Statement of the Problem" (p. 2), namely:

"To what extent are knowledge and use of learning theory reflected in the nature of training programs?"

Instrumentation

After checking various sources, including Buros (1974), the writer was unable to locate an instrument that was applicable to this investigation. The writer thus proceeded to develop a learning theory scale (LTS, Appendix D) and to modify the Paine-Naumes Scale (MPN, Appendix E) to fit the purposes of this study. However, after consulting with the learning theory panel of experts, it was suggested that the writer: (a) "develop a more open-ended instrument"
(questionnaire and checklist), and (b) determine, through intensive interviewing and analysis, whether companies exhibited responses such that each company could be categorized as either "organization oriented" or "trainee oriented."

The Initial Approach

Initially, the writer developed the learning theory scale and the modified Paine-Naumes Scale. The learning theory scale, based upon facets of andragogy and adult learning principles, was to be used to determine the extent to which a training program, according to participant responses, reflected adult learning theory.

The modified Paine-Naumes scale, based upon essential components of organizational climate, was to be used to determine whether an organization could be categorized as either "organization oriented" or "trainee oriented."

Responses to questions on both instruments were to be on a 5-point scale. The investigator was to ask each respondent 40 questions (20 for each scale) and record the responses. The scores were to be weighted; 5 points (always), 4 points (usually), 3 points (sometimes), 2 points (seldom), and 1 point (never). Some items were to be reverse scored.

It seemed imperative, at least to the investigator, to seek opinions and advice from two panels of experts. The rationale for using panels of experts stemmed from the desire to have reliable feedback on both instruments. According to Van Daleen and Meyer (1966), "man often prefers to rely on the judgment of outstanding
authorities whose beliefs have withstood the test of time" (p. 19). They further stated: "When searching for knowledge, man sometimes seeks the testimony of experts who because of their intellect, training, experience, or aptitudes are better informed than other people" (p. 19). Van Dalen and Meyer also stated, "accepting experts' opinions unconditionally and for all time is a dubious if not a dangerous practice" (p. 20). Hence it was advisable to exercise caution and set selection criteria for expert panel members. The criteria used for selecting panel members for this study were: (a) field of employment, (b) experience, (c) expertise, (d) knowledgeability, and (e) accessibility.

**Learning theory panel.** A panel of experts in the learning theory field was selected to give feedback on the learning theory scale (Appendix D). The learning theory panel members—who were Drs. Ronald Crowell, Daniel Moore, and Lewis Walker—were asked to respond to the LTS in an effort to determine validity of content items. A profile of each panel member is included in Appendix I.

**Training and development panel.** This panel was asked to give feedback to assist in the validation of the MPN items (Appendix E) regarding organization and development climate. The panel included Drs. Robert Brinkerhoff, Kenneth Dickie, Hugh Brown, and Gary VandenBerg. A profile of each panel member is included in Appendix I.
Pilot test with ASTD. The two scales were pilot tested in a January 1983 meeting of the Grand Rapids Chapter of the American Society for Training and Development (ASTD). Thirty-five trainers from Grand Rapids and surrounding areas participated in the survey. The present writer was given input as to the level of understanding and answerability of each item on the two scales.

What was learned. The investigator learned that the 35 professional trainers had difficulty answering the questions that were written in a negative manner. She also found that the trainers had difficulty in understanding the andragogical terminology, as well as in interpreting what the questions on both scales meant.

Members of the panels were then asked to (a) provide feedback regarding the terminology used on the learning theory scale and the modified Paine-Naumes scale, and (b) select and rank order the most valid questions for this study.

The learning theory panel members suggested that it would be helpful to have information on the following: training climate, program planning, program content, assessment, evaluation, and the extent of trainee participation.

The members of the training development panel provided input that suggested a need for investigating the consideration given, in planning of training programs, to such things as job skill deficiencies, skill development training, training objectives, trainee proficiencies, and trainee/trainer expectations.
The two panels also questioned the investigator's methodology and voiced concern as to the reliability of the learning theory scale (LTS) and the modified Paine-Naumes scale (MPN) if those were used to extract the information needed.

The Modified (Actual) Approach

During a February meeting, the present writer's doctoral committee members suggested several changes in this design and methodology chapter of the dissertation, as a result of what had been learned in the initial approach. Changes proposed were for:
(a) questions to be open-ended, (b) flexible methods of determining whether an organization could be categorized as "trainee oriented" or "organization oriented," and (c) an analysis checklist for determining the extent of knowledge and use of learning theory reflected in the nature of a training program. It was also suggested that the writer contact her panels of experts to get input on whether tentative new questions could adequately uncover the pertinent information needed for the study. She was also required to pilot test the open-ended questions and the analysis checklist once she received clearance from the panels.

Four persons were selected to participate in the pilot test. Those four represented companies that were all within the state of Michigan, and all four willingly participated.

Questionnaire. The newly developed interview questionnaire consisted of four major questions, with the same six subparts for
each question. The questions addressed such training essentials as: needs assessment, program planning, implementation and delivery, and evaluation (see Appendix A).

**Analysis checklist.** The writer thus proceeded to develop an analysis checklist (Appendix C) to fit the purposes of this study. The analysis checklist is comprised of four primary elements and several components of each element. This checklist was focused on the following elements of training programs: needs assessment, program planning, implementation and delivery, and finally evaluation. The components of each element represented a principle of adult learning theory. The interview questionnaire was used in lieu of the learning theory scale and the analysis checklist in lieu of the modified Paine-Naumes scale.

**Further panel inputs.** Comments from panel members were supportive of the new design and methodology. Members expressed belief that a wealth of information could be obtained from the four basic questions and the six components of each question.

**Data Collection**

The list of participating companies is provided in Appendix B, but in the text of the report each company is referred to only by a number in order to protect anonymity of the companies and the individuals who responded. Once the sample of 40 companies and 45 alternates was established, an introductory letter (see Appendix F) and validation questionnaire (see Appendix G) were sent to the director
of personnel, who routed the materials to the director or assistant
director of training in each company addressed. Later the person
from each company who responded was contacted by telephone.

The writer asked each telephone interview respondent the four
basic questions and the six subparts of each question.

During the interviews, most responses were recorded by a ste­
nographer, although representatives of several companies gave per­
mission to tape record their responses, and that was done in those
instances.

Data Analysis

The responses provided by each participant were analyzed in an
attempt to determine the presence of each variable ("extent of
knowledge and use of learning theory" and "program orientation") for
the participant's company. The analysis checklist was used to chart
the degree of active trainee participation and involvement in each
of the primary components; needs assessment, program planning,
implementation and delivery, and evaluation. This was essential,
since the major thrust of this study was to investigate to what ex­
tent knowledge and use of learning theory were reflected in the
nature of training programs. Since the collected information was
descriptive in nature, no statistical procedures were used; however,
a profile of the "typical" company training program is provided in
Chapter IV.
Prior to collecting data from the telephone interviews that "Fortune 500" companies participated in, the interview questionnaire and the analysis checklist instrument were used in a pilot test of companies which offered mid to upper level management training or human resource development programs in Michigan. The purpose of the pilot test was to gather information on the participant's ability to understand and answer questions, the content, and the terminology, as well as to provide feedback for the investigator. After two minor additions the analysis checklist instrument was employed for data analysis in the following: (a) frequency tabulation, (b) profile of a "typical" training program, and (c) in-depth description of company training programs.

**Frequency tabulation.** The analysis checklist instrument was used to tabulate the frequency of occurrence of each of the six elements of the four components listed on the analysis checklist instrument. The frequency tabulation provided an opportunity to look at the target population and determine the frequency of use of adult learning principles during needs assessment, program planning, implementation and delivery, and evaluation.

All 26 items included on the analysis checklist instrument (ACI) are based on adult learning principles and adult learning theory, particularly andragogy.
Profile of a "typical" training program. In the profile of a "typical" training program, the analysis checklist instrument was employed to identify properties of programs reported in the sample. An analysis of the frequency tabulation and telephone survey transcripts indicated what elements are included in a "typical" training program. The profile shows how the "typical" company training program addresses needs assessment, program planning, implementation and delivery of a training program, and the evaluation of training programs.

In-depth description of company training programs. Data collected from the individual companies through the telephone survey were depicted in depth to show the diversity of company representatives' responses regarding quality of programs, exceptional practices, quotations, and examples of trainee involvement and participation. All analyses were under the headings of the primary components of training programs: needs assessment, program planning, implementation and delivery, evaluation, and in some cases, "comments" and "quotations."

Summary

The purpose of this study was to determine to what extent development specialists employ learning theory in developing their training programs. A telephone survey was made among a sample of 16 "Fortune 500" companies for the purpose of determining the extent to which learning theory is reflected in their training programs.
Initially, the writer proposed and developed a learning theory scale and a modified Paine-Naumes scale; both scales were pilot tested at the Grand Rapids chapter of American Society for Training and Development. The present writer was given input on the difficulty in understanding, difficulty in answering, and difficulty in interpreting what was meant on the two scales. However, the writer's committee suggested she design more open-ended questions and an analysis instrument that could be used to determine the extent to which knowledge and use of learning theory were evident in training programs. The writer proceeded to develop an interview questionnaire and an analysis checklist to fit the purposes of this study.

Two panels of experts provided feedback. The learning theory panel suggested the need to include information on the following: training climate, program planning, program content, assessment, evaluation, and the extent of trainee participation. Also, panel members suggested a pilot test of the interview questions to be given prior to the actual survey.

Members of the training and development panel gave feedback indicating a need for investigating such things as job skill deficiencies, skill development training, training objectives, trainee proficiencies, and trainee/trainer expectations.

Members of both panels questioned the investigator's methodology and the reliability of the learning theory scale and the modified Paine-Naumes for extracting the data needed.
Data were collected by means of a telephone survey. Each participant was a director or assistant director of training. Information was compiled and profiled as well as examined in depth to exhibit range, extremes, depth, quality, and exceptional practices of training programs.

Results of the study are discussed in Chapter IV.
CHAPTER IV

RESULTS OF THE STUDY

Data obtained from telephone interviews of representatives of 16 "Fortune 500" companies constituted the sample for this study. In this chapter the investigator presents the results from the study, including the judgments made using the analysis checklist instrument, the range of andragogy principles that seemed to be reflected, the profile of a "typical" training program, and an in-depth description of each of the 16 companies' training programs. Those 16 companies are listed alphabetically in Appendix B, but only numbers are used for identification in this chapter, since anonymity was guaranteed to all study participants. The numbers do not correspond to the appendix listing.

Range of Use of Andragogy Principles

In Table 1 a tabulation of the judgments made regarding reflection of andragogy principles in training program elements is displayed. Those judgments were made by reviewing responses of company representatives to the six "who, what, where, when, why, and how" questions asked regarding each of the four primary program elements.

As may be seen from the table, incorporation of andragogy principles ranged from zero companies for Principle 4 ("Trainees' previous experiences are considered") to 16 companies reporting inclusion of Principle 1 ("An assessment of trainees' needs is done").
Table 1
Judgments Regarding Frequency, Reflection, and Use of Andragogy Principles in Training Program Elements

<table>
<thead>
<tr>
<th>PROGRAM ELEMENT and Principle</th>
<th>Companies Reflecting the Principle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</td>
<td></td>
</tr>
<tr>
<td>NEEDS ASSESSMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. An assessment of trainees' needs is done</td>
<td>x x x x x x x x x x x x</td>
<td>16</td>
</tr>
<tr>
<td>2. Trainees' deficiencies are diagnosed</td>
<td>x x x x x x</td>
<td>15</td>
</tr>
<tr>
<td>3. Trainees' proficiencies are considered</td>
<td>x x x x x x x x</td>
<td>6</td>
</tr>
<tr>
<td>4. Trainees' previous experiences are considered</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5. Trainees participate actively</td>
<td>x</td>
<td>1</td>
</tr>
<tr>
<td>6. Trainers have information about trainees' skill deficiencies</td>
<td>x x x x x x x x x</td>
<td>9</td>
</tr>
<tr>
<td>Subtotal</td>
<td>3 2 2 3 5 1 3 4 4 3 3 2 3 3 3</td>
<td>47</td>
</tr>
<tr>
<td>Company score (no. of principles possible / no. of principles checked)</td>
<td>.50 .33 .33 .50 .83 .17 .50 .67 .67 .50 .50 .50 .33 .50 .50 .50</td>
<td>.49</td>
</tr>
<tr>
<td>PROGRAM ELEMENT and Principle</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>PLANNING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Training programs are planned for immediate application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Trainees participate actively</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Purposes of training sessions are clearly specified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Trainees help to modify or update training plans to fit needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Training objectives are developed by trainees/trainers mutually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Specific targets for improvement are identified and understood by trainees</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Company score (no. of principles possible + no. of principles checked)

|          | .83 | .00 | .00 | .50 | .17 | .33 | .50 | .50 | .00 | .17 | .17 | .17 | .50 | .33 | .50 | .31 |
### Table 1--Continued

<table>
<thead>
<tr>
<th>PROGRAM ELEMENT and Principle</th>
<th>Companies Reflecting the Principle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>IMPLEMENTATION/DELIVERY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Learning activities are experiential in nature</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>14. Trainees participate in the implementation and delivery</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>15. Climate for learning is collaborative, not authority oriented</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>16. Learned concepts are applied immediately</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>17. Trainees can modify or update training to address need</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>18. Trainees are actively involved</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>19. There is mutual activity between trainers and trainees</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>20. Trainees actively share past experiences</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

39
Table 1—Continued

<table>
<thead>
<tr>
<th>PROGRAM ELEMENT and Principle</th>
<th>Companies Reflecting the Principle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>IMPLEMENTATION/DELIVERY (continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Trainees reexamine past experiences in light of new data</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Subtotal</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Company score (no. of principles possible × no. of principles checked)</td>
<td>.22</td>
<td>.55</td>
</tr>
<tr>
<td>EVALUATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Trainees evaluate their own performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Trainees' performances are evaluated by trainers</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>24. Evaluation is a mutual activity of trainers and trainees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Trainees evaluate training sessions</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>PROGRAM ELEMENT and Principle</td>
<td>Companies Reflecting the Principle</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</td>
<td></td>
</tr>
<tr>
<td>EVALUATION (continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Trainers use trainees' evaluations of training sessions in doing their own evaluations of those sessions</td>
<td>x x x x x x x x</td>
<td>7</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1 0 2 4 0 3 1 3 4 3 2 0 3 1 3 2</td>
<td>32</td>
</tr>
<tr>
<td>Company score (no. of principles possible + no. of principles checked)</td>
<td>.20 .00 .40 .80 .00 .60 .20 .60 .80 .60 .00 .60 .20 .60 .40</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11 7 9 14 12 7 12 11 15 8 9 7 8 10 11 11</td>
<td>162</td>
</tr>
<tr>
<td>Gross company score</td>
<td>.42 .27 .35 .54 .46 .27 .46 .42 .58 .31 .35 .27 .31 .38 .42 .42</td>
<td>.41</td>
</tr>
</tbody>
</table>
Insofar as individual companies were concerned, the range was from two companies (#'s 2 and 6) whose representatives indicated that they included only seven of the 26 principles to one (#9) that apparently incorporated 15 of the 26 principles.

To such extent as the four training program elements were concerned, the 16 companies as a group reflected greatest use and knowledge of andragogy principles in needs assessment (composite score of 49%) and least in planning (composite score of 31%).

Profile of the "Typical" Training Program

Data tabulated using the analysis checklist instrument and telephone interview transcripts were compiled and are presented in Table 2 for the "typical" training program. Responses ascertaining "Do they do it" and the investigator's judgment of "how they do it," and "how well they do it," are presented. Also included are exceptions and qualifiers mentioned by the respondents.

Needs Assessment

The "typical" training program reported was one in which a needs assessment—in the form of either interviews, surveys, and/or questionnaires—was done. Needs assessment was often reported as used for career planning or determining future company needs but sometimes seemed to be informal and "sporadic."
## Table 2
Profile of the "Typical" Training Program

<table>
<thead>
<tr>
<th>Description</th>
<th>Judgment</th>
<th>Exceptions/Qualifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs Assessment</td>
<td>Yes, in some cases within several companies</td>
<td>Used for career planning, job promotions needs, future trends, and future needs of the company. Some employers identified their own deficiencies.</td>
</tr>
<tr>
<td>Program Planning</td>
<td>Yes</td>
<td>Economics, lack of background knowledge, personnel trainer shortage.</td>
</tr>
<tr>
<td>Implementation/Delivery</td>
<td>Yes</td>
<td>Use training consultants, buy off-the-shelf programs, design and write programs.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Yes, in some cases within several companies.</td>
<td>Lack of knowledge, lack of personnel and resources, &quot;it's just not done.&quot;</td>
</tr>
</tbody>
</table>
Program Planning

Program planning, as reported, ranged from the use of guest consulting firms to the provision of company planning; to the development and pilot testing of corporate training plans and objectives for trainees, by trainees. Although the range of use varied, program planning was not often used to the companies' fullest capabilities due to lack of funds or personnel.

Implementation and Delivery

Implementation consisted mostly of behavior modeling, role plays, observations, case studies, lecture, and self-discovery learning. Regarding this element, training programs ranged from those that might be considered authority-centered (#'s 6 and 8) to one that seemed learner-centered (#5). Trainers reported using programs that ranged from "packaged" to "designed in-house."

Evaluation

Responses elicited indicated that corporate training program evaluation existed in several variations, ranging from informal "word of mouth" to formal written narratives. Also employed were "happiness ratings," surveys, questions, and one-on-one interviews. Due to lack of knowledge regarding the process or lack of personnel, sometimes evaluation was only done well enough to get by "within good conscience."
In-Depth Descriptions of Company Training Programs

Descriptive data on each of the 16 companies are displayed in the following pages. Information extracted from each company representative during the telephone survey addressed needs assessment, program planning, implementation and delivery, and evaluation. Those components were analyzed to exhibit the extremes, depth, quality, and exceptional practices found in the training or human resources development programs of those 16 "Fortune 500" companies that were surveyed. In addition, the in-depth descriptions contain comments and quotations obtained during each interview.

Company #1

Needs assessment. Components reported by this company representative were: Annual job performance reviews, interviews, surveys, personnel development plan, development needs analysis, and management development form.

Planning. (Personnel development plan) Supervisor develops his plan and sends it up to next level for review. Trainee and supervisor plan together a development plan format.

Implementation/delivery. Structured orientation sessions, with no interaction among trainees. Development environment is on-the-job learning.

Evaluation. Company began evaluation in 1981; it is not complete as of yet.
Quotations. "Everyone is in the development program, [but] they can exclude themselves." "No time for trainees to interact during sessions." "Development needs analysis [is a process that] identifies needs for company's future." "During personnel development plan trainees express comments, they [trainees] will be monitored." "Corporations are like individuals, they have their own unique way of doing things." "Personnel department develops a program and implementation is handled by supervisors." "Evaluation comments [by trainees] to be monitored." "[In regard to how adults are trained], learning is a broad subject that they [the corporation] developed in-house over a number of years."

Company #2

Needs assessment. Components reported by this company representative were: Occasional pre- and post-test assessment; analysis of career plans and performance (once or twice a year).

Planning. Group of five individuals plan the program. Plans are driven by objectives from management, higher management, and group of employees. Content might be contracted out through the local university.

Implementation/delivery. Role plays, simulations, discussions, and very little lecture comprized the delivery.

Evaluation. Very few evaluations were done.
Quotations. "Trainees, they select themselves—or their bosses select them, for a given set of programs." "[The] company runs a catalog of programs . . . over the years there have been a number of people who have always asked for the same types of programs."
"Trainee determines the appropriateness of courses through course descriptions." "Trainees have very little input during training sessions; they have input during the planning stage and pilot test."
"Courses are designed to teach and sometimes we are teaching to overcome some deficiency." "Employees can also go to an external university to take a course [if the company isn't offering what they want or need]." "Employee is better equipped to know what he or she needs, than the supervisor." "Trainee does not plan the program, but might have influence in modifications." "Due to the breakdown of age and experience, we don't treat the trainee as a student."
"Once judgment becomes part of the content, generally students have experiences that have to be used in the classroom, because they many times are as expert as the people doing the teaching. You rely on people learning from each other."

Company #3

Needs assessment. Components reported by this company representative were: For middle and upper level management, two-level structured review (annual narrative and performance appraisal interview); trainee signs off on assessment and may discuss the review.
Planning. Trainee is expected to do pre-work. Corporate staff are responsible for future direction of company. Continuing inventory of company supplies and needs. The determination of the ability of the company to grow can be influenced by the availability of competent management to change and or expand from business activities by back-up managers. Where practical in terms of the availability of people [and] finding a course which meets the need of middle management, they are offered the opportunity to attend executive seminars.

Implementation/delivery. Small group, lecture, projects, case-study work. Trainees do often present during sessions. Three- to five-day courses nominated by manager. Lower and mid-level more exposed to concepts of management by "show and tell"; upper level and officer level management exposed to presentation of new theories through college campuses, retreats; continuous process to develop persons identified for continued growth.

Evaluation. Formal evaluation 1-2 weeks after the seminar. Written evaluative report to trainee's manager. Critique is also done. Overall evaluation done at budget time on effectiveness of the program in delivering the results desired (subjective interpretation).

Quotations. "Interviews used to plan careers and diagnose deficiencies." "Develops persons identified to continue growth."
"[Two-level structured review] most effective method of determining
the performance of a candidate is against the job requirements and predetermining the objectives." "It should be noted that part of this review is a consideration of positions that the appraisee might be a candidate for within the company and what education or special training the appraisee might need to qualify for promotion."

"Learning process [judged] both in terms of material presented by seminar leader and synergism which exists from the conference attendees." "[How persons are selected for courses]: Nominated for courses, and it is suggested that they attend." "Trainees are encouraged to present a topic on which they are knowledgeable and person putting on program is continually looking to the attendees to provide any experience or input that might be illustrative of value to the topic being discussed." "Particular attention paid to trainees' comments regarding the value of programs as they saw it [of programs they attended]." "They [company] prefer programs with immediate relevancy and an opportunity to reinforce the training experience is closely watched [for]." "When training is done, it is done for the purpose of improving the managerial capacity of the individual rather than for the sake of training." "Trainer is expected to be the leader and is expected to be a source of expertise, but [also one who] would solicit additional sources." "Also [trainers are] expected to encourage additional information."

Company #4

Needs assessment. Components reported by this company representative were: (a) self-assessment and management assessment
(identifying individuals' particular deficiencies and future needs),
(b) consultants, (c) interviews, and (d) periodic general surveys.

Planning. Done by employee educational opportunity program,
management may suggest a particular course, possible development of
a formal or generic program, customized program designed to fit
specifications of need, and pilot testing.

Implementation/delivery. Facilitative approach to training,
interactive training responsibilities during sessions, role plays,
small group discussion, large group discussion, and drawing conclu-
sions.

Evaluation. Formal evaluation in the form of (a) critiques,
(b) reassessment input on applications, (c) follow-up sessions, and
(d) support groups to sustain their own learning. There is also
subjective/objective evaluation, and development of action plans.

Quotations. "[Company training system is an] employee driven
system." "Employees will identify their own deficiencies--self-
identification of knowledge and skills." "Example: if someone
needs to know how to operate a computer, [the employee approaches
person in charge of educational development program]." "[When
there is] a gap between current results and desired results, this
creates a need [and the] trainee must determine where they are in
relation to the current results and desired results, then identify
resources and constraints and then determine whether an intervention
could be successful and what type of intervention that should be;
is training one of the ways?" "If this is the way to go, then a program is designed to address the individual's needs." "One of the primary reasons for identifying needs and responding to those needs is to make sure that [the] organization continues to be effective, and the individuals who operate in that organizational environment are effective from a conceptual framework." "It helps us to run the business more effectively if we know what is going on and where people are having problems and what we can do about it; it has a direct relationship to profitability." "Needs snowball if they go unattended; [we] anticipate and avoid potential problems organizationally." "Consultants are brought in to identify and help articulate problems." "[Within the company] planning becomes the responsibility of the individual, if you will." "College courses, seminars, workshops, [and] conferences tend to place the responsibility for learning on the individual learner." "When workshops are designed, we try to cause people to work issues on their own rather than let trainers work through and identify problems; [we] don't prescribe all the problems for them [trainers]." "[During] evaluation, trainees are asked to develop action plans, which means listing deficiencies."

Company #5

Needs assessment. Components reported by this company representative were: Performance appraisal annual assessment, career development interviews, assessment centers, career path planning, cross-functional training needs, and long-term job goals.
Planning. Career path planning, guest faculty contacts, concise definition of who, what, how, and contacts established with the training sponsor through needs assessment, planning, implementation and delivery, and evaluation; and specification of overall needs, design of program, presentation, and evaluation.

Implementation/delivery. Use of consultants for seminars; persons with expertise. Frequent use of trainee expertise to teach in training groups.

Evaluation. Informal or participant directed, top management goes by "word of mouth," whereas primary evaluator is the training and development group.

Quotations. "Needs assessment [is through a] democratic approach [which] means to have a well-rounded approach." "Still the goal is to break down training needs to a specific job behavior." "Assessment centers are used to enhance the transfer of learning." "Assessment is done by training and development folk and strong partners are the people being assessed." "Not much time spent on evaluation, primary evaluator is the training and development group." "Evaluation is pretty much informal, or participant directed." "Some company sessions should have 30-, 60-, and 90-day fixed interval evaluation measures."
Company #6

Needs assessment. Components reported by this company representative were: Continuous informal needs assessment (no questionnaires or surveys), informal needs assessment done on local level, with personnel and human resource perspective.

Planning. Training staff have input on what is done and how program will be run. Training staff are assigned programs to plan, and they work on planned programs and get feedback from other training staff.

Implementation/delivery. Training staff from the corporate offices might do centralized training, but the trainers from the field then return to their localities for localized training, regional training, and further corporate office training. They hold one session per week for a number of weeks. "What we try to do is meet the needs of the field."

Evaluation. Questionnaires, general training evaluation forms. Trainee must report how skills are used during workdays between sessions.

Quotations. "Needs assessment basically is getting feedback from the field." "Requests for courses come from the field." "Basic programs run every year." "Assessment is a continuous process to develop people within the company." "Field training allows development of programs to fit local office needs, policies, and
procedures." "[Company representatives] would hope trainees participation is beneficial." "Formal assessment will be started in the near future." "All programs require the participation of all of the participants."

Company 87

Needs assessment. Components reported by this company representative were: Formal needs assessment (once a year) used in conjunction with company internal 5-year plan. Needs assessment provides information on proficiencies and deficiencies; continuous update analysis.

Planning. Address decisions as whether or not to buy, how to train, how to tailor programs to fit company needs. Trainees provide materials for case studies. Company publishes a catalog of classes to be held and a description of each.

Implementation/delivery. Traditionally, training was done by function in previous sessions, but now training is "cross functional." Core courses presented, as well as role plays, case studies, videos, modeling, and executive speeches.

Evaluation. Phase review process; new formative evaluation to be done as they do training, not after the fact, but within each phase. "Happiness ratings" done.

Quotations. "Ongoing analysis question: Does what is done meet current [trainee] needs?" "[After studying the] adult learning
mode from the literature, [a determination must be made on] whether
the need is skill need or conceptual need; this is the determinant
of how they are trained." "[Company] catalog a very useful planning
tool, so a person can plan ahead for which course they should be in."
"Trainers don't have a good benchmark [measurement] system."
"Courses very interactive, very much from the experiential mode,
[with our training sessions] people learn more by doing than by
listening."

Company #8

**Needs assessment.** Components reported by this company repre-
sentative were surveys and interview procedures.

**Planning.** Planning department looks at what is needed from the
needs assessment. Decisions are made regarding whether: (a) off
the shelf, or (b) to contract out. Trainers participate in pilot
testing. Phase I, plan programs one year at a time; Phase II, work-
ing on the specifics of those planned programs.

**Implementation/delivery.** Condensed version presented to staff
management to prepare them for what will be implemented and why.

**Evaluation.** Multiphased:
1. Post-evaluation forms (immediately)
2. Three-month follow-up post evaluation
3. Phase I
4. Phase II
Quotations. "Needs assessment request comes in from a division or plant in the corporation, HRD surveys that division and interviews then take place." "If the environment isn't right, training is held off until the environment and need is [sic] right."
"Trainee knows his need and why supervisor or manager signs him up for the course." "[Phases I and II] make sure that training is meeting the objectives." "Informal comments tell you whether courses are meeting the needs." "Evaluation is part of the course." "Personnel manager and supervisor look at the evaluation to see if trainees are doing what they are supposed to be doing."

Company #9

Needs assessment. Components reported by company representatives were: Consulting provides assessment, interviews, and surveys. Performance appraisals and the gathering of trainee demographic data: Career path planning for individuals, full-year program management for the composite group.

Planning. Identify target group based on following criteria: functional diversity, subjective information, ability levels, competence, and homogeneity. Scheduling and curriculum modifications follow.

Implementation/delivery. One-day overview which includes orientation, lecture, and group exercise. Sessions run 3-6 weeks, 1 day per week. Behavior modeling approach, lecturette, films, dialogue, key action discussions, skill practices, video tapes, and

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written case studies.

**Evaluation.** Development of narrative statement instrument completed (a) immediately after session, and (b) again 6-12 months later. Informal feedback via informal meeting places.

**Quotations.** "[Earlier this year] strategy teams were developed along corporate goals and objectives." "Trainees are used during training sessions to further assess deficiencies and proficiencies." "With adult learning we encourage trainee interaction and participation in designing future training sessions." Company contact believes "that trainees need to manage their own learning; ... trainer role is [as] more of a facilitator than a trainer." "Kinds of sessions [provided are] skill enhancing and skill developing sessions—more input on how to than on theory." "Behavior objectives provided at beginning, [but] attempts are made to have allowance for trainee input on needs." "Session format [1 day a week] for the purpose of integrating learning with actual real world issues preferred to a 5-day session." "Most proven methodology for transference of learning from a training to a work session [e.g., 1 day per week]." "[Sessions offer] learner centered education; trainees are encouraged to take leadership in their area during training sessions due to their expertise." "Log is kept to assist in the event of problems." "Key is, are they dealing with lasting behavior change or just a spin-off of stimulating interaction after spending a week away?" "Is the impact being made on organization and culture as a whole over time?"
Company #10

Needs assessment. Components reported by this company representative were: Interview survey, performance appraisal, outgoing assessment through training management meetings, and assessment centers.

Planning. Development plans pulled from performance appraisal, plan for 1 year: (a) look at needs assessment, (b) assign a trainer, (c) meet with managers, (d) meet with other trainers, (e) present [plan] to those other trainers to verify needs, (f) design the program, (g) present it again for feedback, (h) pilot test, (i) revise, and (j) implement to persons from target audience.

Implementation/delivery. Seventy-five percent of programs are taught by in-house trainers; experiential learning methods, process learning, behavior rehearsal; role plays—video, internal, and external possibilities.

Evaluation. Immediately after workshop—end of workshop forms; trainee evaluates trainer and session, trainer evaluates session informally.

Quotations. "Manager identifies development needs of the individuals [which are then] reviewed by trainer." "[Company] wants managers to buy into the fact that they are the initiators of their subordinates' development. Development is tied to either a performance deficiency or developing someone to take on added
responsibilities in their next job." "Trainee involvement only in the form of interviewee or recipient of." "Very little evaluation done in training programs, mostly: 'How'd you like the workshop? What was most valuable? What was least valuable?' Compile and look at data and that is all." "Trainees evaluate trainer and sessions." "Trainers evaluate sessions informally [only]."

Company #11

Needs assessment. Components reported by company representatives were: Discussions, questionnaires, surveys, climate surveys, and long-term growth records of the trainees. Needs assessment is a continuous ongoing cycle. Performance review (monthly) and career development process.

Planning. Strong beliefs regarding direction of business. Programs are planned for organizational need, designs are purchased or designed by contact person or consultant ("Business has to go in this direction—we need a workforce to do . . .").

Implementation/delivery. Process oriented; workbook sharing, role plays, video tape process, behavior modeling, small group interaction, and the dependence on trainer being a facilitator—not a "trainer." One day per week for 6 weeks. Structured climate, more process oriented than lecture. Trainees very interactive; presented are people skills, group process skills for employee participation.
Evaluation. Informal "word of mouth." Documented feedback from trainees after each course, and company also gets organizational feedback.

Quotations. "Impetus for training at corporation spins out of local needs." "[Through] phone contacts trainer finds a mechanism to address needs." "Bulk of training spins out of organizational needs." "Requires all people go to some courses." Within company is the "development of strategies that will work in a given division--this means it's a business need." "Local people [trainers] are heavily involved in the content structure, company person is actually responsible for the structure that delivers training." One reason why there is no evaluation is it "costs more to get data than it is worth." "Different kind of feedback being asked back again and again." "Feedback from organization measured by criteria of: Did the project succeed? Did I contribute to the success? Were individual needs met?" "Trainee applicants are forced to share." Contact person "trains 150 trainers who present at local and 'world-wide' sites, and supplies them with materials." "Best way to manage change in any organization, you get the boss to role model it and change will come closer to happening [than] if you have an outside staff doing it." "Highly decentralized process run by local management because if you want to manage change outsiders can't do it and insiders have the credibility." "[On evaluation] we get a log of anecdotal data, but I don't do anything formally."
Company #12

Needs assessment. Components reported by this company representative were: Interviews for needs determination regarding: the organization, the department, the trainee, performance appraisal (individualized), and information gathering.

Planning. Continuous and strategic.

Implementation/delivery. Presentations, observations, case study methods, lecture, self-discovery, learning, external training programs, and highly tailored internal programs.

Evaluation. Design in process.

Quotations. "Periodic but regular needs assessment once every 3 years." "Questions what they've learned in program." "Assessment includes large amounts of information about the company strategic plan, position of each business as it exists today plus personal information from the performance appraisal." "[Company] 'fine tunes' programs on an ongoing basis." "[In preparation for future] guidance for company; selected persons are to be groomed for the future." "Participation is mutual activity between trainee and trainers." Company training or development programs are "shorter but higher-quality training effort." "Company training plans are a little bit futuristic." "Recommend external training programs." "Recommend a highly tailored internal program to address company needs."

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"Designing evaluation at this point—will not be done as soon as the program is done."

**Company #13**

**Needs assessment.** Components reported by the company representative were: Performance appraisal, period survey.

**Planning.** Managers of Human Resource Development program identify the target population, make plans for training site, and do precourse assignment.

**Implementation/delivery.** Courses are both teacher directed and learner centered; breakdown for each type of training; modular training, video feedback, behavior modeling, case studies, films, participative lecture, and interactive video.

**Evaluation.** Started 18 months ago, none prior, three-part system: (1) precourse control for change, (2) end of course critique, and (3) follow-up on contract for change determining whether change actually occurred. Post course assessment, spot interviews with trainee and training boss.

**Quotations.** "Course nomination form doesn't specify exact need, just says general upgrading—documentation." "Needs assessment [determines] how courses relate to the person's need for development." "Employee development should be discussed at the time of discussing past year's performance." "Managers don't have a good feel for what training can do, [it is] used as reward for doing a
good job and 'nice things.'" Opportunity for trainee input is limited because "trainees don't tell what they want—they're not paying the bills." "Trainers not experts in their field—but they do extra studying and present." "They know somehow vaguely employee development is an important responsibility. Easiest thing to do that requires the least effort on their part is to identify a training course." "Training is typically used as organizational intervention." "Two reasons why we have training: (1) newly into job core development program, (2) persons who have experience on a job and wish to improve their skills in an area." "[We] focus on what the participants do." "Training managers are not experts in the field but are good competent managers who have made an extra study of the subject matter and are competent to lead discussions."

"Learning [is a] mutual [activity between] trainee and trainer [breakdown for what is used in training]." "Participative lecture is to give information in a short period of time; it it is a skill we want to develop, then we spend a lot of time practicing that skill—we learn by doing." "Breakdown the concept that we want people to understand, then we use a case study or discussion method or a combination." "If it's an emotional or attitudinal kind of change that we are looking for, we'll do things like role play."

Company #14

Needs assessment. Components reported by this company representative were: Verbal surveys, self-nomination, identification trends or developmental needs, what is needed or requested for
Managers, ongoing collection of data, review performance appraisal.

Planning. Each November, design schedules and use a formal communication process to pass the word on program descriptions, schedules mailed in December and June, continuous revision and design of programs; pilot testing.

Implementation/delivery. Small discussion groups, problem-solving groups, in-baskets, role plays, simulation, consultants, pre- and post-questionnaire.


Quotations. "If there are needs or interest in a program--[the] program will be presented." "Managers request programs--or self-nomination to attend the program with the manager's approval." "As normal course we go to line managers and ask for ideas or input in designing a course." "Skill-based training, they actually get there and experience what they are doing, writing skills presentation, skills career management. They are actually doing the work of simulation." "Actual work has to be done between sessions." "We do evaluations of the program, topical areas, overall program, the facilities, and the instructors." "Would like to do more evaluation." "I trade off between expediency and value."
Company #15

**Needs assessment.** Components reported by this company representative were: Annual review, performance review, identifying group needs, executive committee determines needs, interview-personalized needs assessment.

**Planning.** Talk-out sessions regarding: (a) client, (b) audience, (c) general kinds of important things; timing, facilities, program medium, action calendar.

**Implementation/delivery.** Dimensional appraisal training, problem solving appraisal mode, interactive role play, behavior modeling, case studies, skill development.

**Evaluation.** Questionnaires (trainee), second trainer evaluates the session and content, informal comments.

**Quotations.** "Executive Committee makes [the] determination of specific needs [and a] one-on-one review of each person's capabilities. This assessment is [the] individual's personalized needs assessment." "Appraisal mode geared to interpersonal/communication skills." "Dimensional appraisal at training sessions [presents] structured activities, behavior modeling, and new learning experiences." "Trainees are not to be evaluated, they are there to learn." "Informal comments used to change format, presentation, and content."
Company #16

Needs assessment. Components reported by this company representative were: Needs assessment every 2-3 years, also structured interviews, and content analysis.

Planning. In-depth research, the writing of a training script, presentation of script to training and development staff, pilot testing of script objectives (abbreviated schedule of 3-4 hours).

Implementation/delivery. Small group work, journal writing, and role plays. Trains line managers and development staff, who co-teach with someone from a particular area.

Evaluation. Typical end-of-the-day questionnaire.

Quotations. "Everyone in an organization needs to be involved in the organizational assessment for ownership; [this] looks at the environment, the climate, training needs, who is competent, and who is successful." "What kind of management skills, start with successes and determine what made it successful." "Training should be scaled to the work area, 'hands-on experience.'" "People inside know more about how to do it rather than an outside consultant." "Get top management support--pro-active." "Go out and sell it; have credibility in the organization." "Long-range scheduling and planning involving the trainee [6-8 months]." "Evaluation not done in most companies." "We do not do evaluation very well, only questions at the end."
Judgments Regarding Learning Theory Evidence

The present investigator found that several of the surveyed companies displayed considerable knowledge and use of adult learning theory. This finding was evident in the amount of trainee involvement reported in each of the four primary training program elements and the components of each element.

Those companies whose representatives exhibited knowledge of adult learning theory consistently indicated that needs assessment was done by diagnosing both trainee deficiencies and trainee proficiencies, as well as by providing to trainers preexisting information regarding trainee deficiencies.

Judgments from In-Depth Descriptions

Data gathered during the survey depicted an in-depth description of the following elements: needs assessment, program planning, implementation and delivery, and evaluation. Those elements, when analyzed, exhibited the extremes, depth, quality, and exceptional practices found in the 16 "Fortune 500" companies surveyed.

The data gathered on training or human resource development programs indicated several differences, ranging from trainees having no or limited involvement (with each other) to encouragement for trainees to present the entire training session, due to their background knowledge and expertise.
Depth of Program Offerings

Some training or development program offerings were based on trainee self-identification of needs and program solutions, or trainee self-nomination to particular programs. Others reflected an intensive (corporate based) overall personal development program indicating ongoing planning efforts to address trainee needs or deficiencies.

Quality of Programs

Company representatives' responses indicated that programs ranged from in-house trainers preparing (which included researching and piloting the subject matter to be presented) one program or a series of programs, to training and development specialists or consultants being contracted to present specialized subject matter. Quality could be determined, in the present investigator's judgment, by the number of adult learning principles reflected in needs assessment, planning, implementation/delivery, and evaluation of training programs, since trainee involvement is essential to program participation and "ownership." In one company, some trainees were reported to be actively involved in the assessment of needs. Representatives reported actual use of interviews, surveys, job performance reviews, performance appraisals, and informal assessment activities.

Results for the program planning category provided indicators that the trainees in several companies participated actively in pre-program events such as the writing of case studies, pilot testing,
providing feedback, and in some cases identifying targets for individual improvement.

Survey data related to implementation and delivery provided information on the nature of training sessions. Sessions indicative of application of adult learning theory were those for which experiential learning activities, a collaborative climate of learning immediate application of learned concepts, presentation and intense interaction during a training session, and use of expertise based on past experiences were reported.

Evidence of application of adult learning theory in evaluation of programs was depicted by reports of trainee evaluation of performance, trainee evaluation of the training sessions, and use of those evaluations to concretely revise and update training presentations.

Summary

The problem investigated in the study was: To what extent are knowledge and use of learning theory reflected in the nature of training programs?

Information obtained from the telephone surveys of 16 "Fortune 500" companies' representatives constituted the data for this study. The investigator presented in this chapter findings regarding:
(a) judgments regarding the tabulation of andragogy principles,
(b) a profile of the "typical" company training program, and (c) in-depth descriptions of the programs of each of the 16 companies for which a representative was interviewed.
Included in this chapter also were findings that indicate the writer's judgment based on responses from company representatives, regarding program extremes, depth of program offerings, and quality of programs, along with exceptional practices and significant quotations.

The writer then reported her findings in relation to corporate training and its apparent basis in learning theory. The results of this study displayed evidence to accept both hypotheses, although evidence would indicate that most of the 16 companies seemed to be organization oriented, as judged from representatives' responses.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

In this chapter the writer presents a summary of the study, conclusions drawn as a result of the findings, some recommendations, and some implications for future research.

Summary of the Study

The purpose of this study was to determine to what extent knowledge and use of learning theory are reflected in training programs. Data were obtained through telephone interviews of representatives of 16 "Fortune 500" companies. After careful review of interview transcripts, judgments indicating the reflection of knowledge and use of learning theory were made, a profile of the typical training program was provided, and in-depth descriptions of 16 company training programs were presented.

Conclusions

Responses of company representatives clearly indicated that most of them were familiar with some of the fairly extensive literature regarding adult learning theory. However, judgments made by the researcher in compiling Table 1 indicate that, according to the instrument used, most of the companies have not done much to use their representatives' knowledge in their training programs, as shown in the table. Furthermore, the analysis indicated that most
of the 16 companies seemed to be organizationally oriented, as judged from representatives' responses.

Responses reported from the 16 company representatives seem to support the fact that training or human resource development personnel place a priority on three of the four components examined in this study. They were: needs assessment, program implementation and delivery, and evaluation. However, program planning was not given the importance in training program operations it should have been. Several companies did base many of their training efforts on adult learning theory, placing the responsibility equally on the trainee and trainer for the who, what, when, and how of trainee learning. This practice accords with theory as expressed in the literature.

Those company representatives whose responses exhibited prior knowledge of and about adult learning theory consistently stressed the importance of trainee/trainer mutual involvement, either through case study writing, trainee participation in pilot testing, or trainee comments to be used in the revision and in the upgrading of the actual training process. Also stated as important were: (a) trainee skills to be immediately applied and (b) learning climate being collaborative, rather than authority oriented; the trainer role was viewed as more facilitating than trainer or organization centered.

Several company representatives indicated that they held memberships in national and local training organizations and that they did their own personal investigations and surveys or had contact with
other training or human resource development professionals for questioning and updating knowledge of what works best with the adult learner.

Many of the respondents indicated having experience trying different methods within the company and finding, as a result of continued resistance, that it was better to use internal trainers who were familiar with company policies and procedures. Several also reported the upper executive echelon becoming involved, either through behavior modeling or participation in preliminary training sessions, cultivated ownership, thus providing exemplary behavior for the remainder of the corporate staff.

Judgments resulting from responses of representatives of the 16 "Fortune 500" companies suggested that few companies could be classed as trainee oriented regarding: (a) previous trainee experiences being considered during needs assessment, and (b) providing trainee involvement in training program modifications or program updates to address training need during the planning stages or implementation and development stages.

Laird (1978) stated:

[The] primary function of the instructor is to manage, or guide, andragogic processes—not to "manage the content," as in traditional pedagogy. To achieve this, learning designs involve establishing a norm for a great deal of two-way communication. This may very well include learner inputs, querying, or establishing the objectives and the methods. (p. 124)
Needs Assessment

Warren (1969) stated "the purpose of need identification is to provide an organization or system with a clearly defined end product as the objective of developing an action for behavior change" (p. 55). With this in mind, it was reassuring to conclude that all 16 company representatives responded positively in regard to some aspects of assessing trainee needs. However, there were gross and general deficiencies in considering trainees' experiences and in having trainees participate.

Program Planning

Walker (1980) recently reported:

Often, programs are readily identified to satisfy an organization's needs. That is, the solutions are found all too quickly, often without adequate consideration of the appropriate training approach, the content and structure, and whether the resources should be developed internally or purchased externally... These planning roles are extremely important in providing direction to the overall process and for ensuring that specific programs are attuned to real organizational needs. (p. 266)

He was quoting from Pinto and Walker (1978) and White (1979). Hence, the importance of planning might not be understood in its totality. One company representative stated that "six to eight months are necessary in long-range scheduling and planning involving the trainee."

Major deficiencies here were in having trainees: (a) participate in planning, (b) help to modify training plans to fit needs, and (c) work with trainers in developing objectives.
Implementation and Delivery

Laird (1978) posited:

Modern learning theory stresses the desirability of giving learners some degree of ownership of the learning processes. To achieve this ownership, the designer produces a "lesson plan" which offers lots of chances for active learner involvement. . . . Modern theory also indicated that adults want to invest their previous experience in the learning processes. Therefore another dimension for analysis would be the amount of content supplied by the learners themselves. (p. 129)

Several company representatives reported that they included trainees in various activities during implementation and delivery. Participation of trainees in such activities might consist of presenting topics for group discussion, group teaching, role plays, and problem solving. Hence, the inclusion of activities, such as the aforementioned, would seem to heighten the learning experience. However, general deficiencies, apparent from the data displayed in Table 1, were in: (a) not having more trainee participation in the implementation and delivery, (b) not using trainees to update training programs, (c) not having trainees work with trainers, (d) not having trainees share past experiences, and (e) not having trainees examine past experiences in light of new data.

Evaluation

Most of the writers reviewed stressed the importance of evaluation to having training programs remain viable. Representatives of 12 of the 16 companies did report that they had trainees evaluate training sessions. However, only seven of the 16 reported that
trainers used those evaluations by trainees in doing their own evaluations of training sessions. Only seven reported that trainees evaluate their own performances, while only three of 16 reported that: (a) trainees' performances are evaluated by trainers and (b) evaluation is a mutual activity of trainers and trainees.

Thus, one might conclude either that these companies do not consider evaluation important or they do not know how to do it properly.

Recommendations

Since the purposes of training are to address needs, to alleviate problems within the organization, and to upgrade skills and abilities of the trainee, it seems imperative that trainers take into account the impact of learning theory on training and on conditions of training.

When questioned regarding continuing traditional training systems, Laird (1976) stated "the answer lies basically in the nature of adult learners--and there is new and considerable evidence that traditional systems are not producing behavioral change in the direction and to the degrees desired by organizations sponsoring the training" (pp. 42-1-42-2). Laird then quoted Rogers by saying, "significant . . . learning has a quality of personal involvement--the whole person in both his feelings and cognitive aspects of being in the learning event" (p. 42-2).

Daly (1976) quoted Knowles who stated "the person responsible for the development of supervisors and managers must be not only an educator but also an 'adult' educator who understands the
distinctions between 'pedagogy' and andragogy' [adult learning]" (p. 22-9). This is a clear indication that much is involved in the essentials of how adults learn and how company training programs must be attuned to these essentials.

Daly (1976) further stated:

This person should provide an environment for learning by:

- Treating mistakes as occasions for learning.
- Helping individuals to diagnose their own needs for self-improvement.
- Involving participants in planning, carrying out, and evaluating their own learning activities.
- Making use of the experience of participants for their learning.
- Providing opportunities for participants to be exposed to 'unfreezing' experiences.
- Building training experiences around real-life problems, not predetermined subject content.
- Providing immediate opportunities to practice new learnings with a sense of satisfaction. (p. 22-9)

Miller (1979) listed the specific responsibilities of a training officer as:

1. Maintain a continuous audit of the organization's training needs;
2. Develop training policies and procedures;
3. Prepare objectives for the department and communicate them to the training staff;
4. Prepare departmental budgets and evaluate the value received from expenditures;
5. Research learning theory for application to learning and teaching problems;
6. Supervise the work of the training staff;
7. Plan developmental activities for the staff and appraise their professional growth;

8. Arrange for training facilities, equipment, and materials;

9. Develop and apply methods for checking the effectiveness of all training activities. (p. 14)

The present writer concluded that all of the aforementioned responsibilities are important; however, Item #5, "research learning theory for application to learning and teaching problems," seemed to be of paramount importance if the training officer or specialist is concerned with actual trainee learning.

Ideally, trainees would be involved in all nine components of this element, as listed on the analysis checklist instrument, and would have ownership opportunities like those depicted by Laird (1976).

Verduin (1980) suggested: "The adult learner with all of his personal ideas, motivations, values, goals, beliefs—the individual psychological makeup—must receive careful attention by the adult education curriculum worker if the educative process is to be effective" (p. 21). In those situations where there is little or no trainee participation or involvement—and seemingly little if any company or trainer concentration on the adult learner and his personal ideas, motivations, values, or beliefs—that the trainee learning process possibly is being slighted.

According to Brinkerhoff (1980), evaluation of a training program is:

1. To facilitate planning: determination of program goals and strategies.
2. To facilitate and develop a program's implementation.

3. To assess the effects of inservice programs upon the work environment. (p. 16)

Data obtained in this survey seem to indicate that evaluation is not incorporated to its fullest extent. This causes the investigator to recommend that those companies which do not now evaluate when changes are needed to redesign or revise company training programs do so in the future.

Suggestions for Future Research

Perhaps studies addressing the following questions, which became apparent during the present study, might contribute to the literature in both the learning theory field and the training and development field:

1. What relationships exist among: (a) performance appraisals, (b) actual individual trainee needs, and (c) the company direction or future? What is to be done regarding trainee needs when company direction or company future planning takes precedence over people (trainee) needs?

2. What relationship exists between national training organizations and the continual update of knowledge on how trainees learn?

3. How much impact does participation (case study writing, pilot test participation, etc.) have on the trainee's view of himself/herself and his/her abilities?

4. Do persons (trainers) who have memberships in national training organizations exhibit more extensive reading, more
awareness of training issues, more use of learning principles as they relate to training in general than do those trainers who do not hold such memberships?

5. Would corporate training programs be more effective if persons in the training specialist functions were equipped with more: (a) educational theory background and/or (b) in-house company experience prior to their employment in training positions?

6. The Analysis Checklist Instrument (Appendix C, p. 89) should be expanded and refined for research purposes.

Summary

The writer presented in this chapter a summary of the study, conclusions drawn as a result of her judgments regarding the data collected, some recommendations, and some suggestions for future research.
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Appendix A

Interview Questionnaire
Interview Questions

A. Please take me through your process of assessing trainee needs.
   Who does it?
   What is done?
   Where is it done?
   When is it done?
   Why is it done?
   How is it done?

B. Please describe how your planning process works.
   Who does it?
   What is done?
   Where is it done?
   When is it done?
   Why is it done?
   How is it done?

C. Please give me a specific example of implementation and delivery of a training session.
   Who does it?
   What is done?
   Where is it done?
   When is it done?
   Why is it done?
   How is it done?

D. Please tell me about evaluation of your training program.
   Who does it?
   What is done?
   Where is it done?
   When is it done?
   Why is it done?
   How is it done?

E. Are there any additional comments you would like to make?
Appendix B

List of Companies
List of Companies

Alexander & Alexander
Allied Corporation
American Electric Power
Burlington Northern
Burroughs
Chesebrough Ponds
Dayton Hudson
Kimberly Clark
Levi Strauss
May Company
Middle South Utilities
Monsanto
Parker Hannifen
Philip Morris
Quaker Oats
Standard Oil—Ohio
Appendix C

Analysis Checklist Instrument
Analysis Checklist Instrument

Needs Assessment
An assessment of trainees' needs is done.
Trainees' deficiencies are diagnosed.
Trainees' proficiencies are considered.
Trainees' previous experiences are considered.
Trainees participate actively.
Trainers have information about skill deficiencies of trainees.

Planning
Training programs are planned for immediate application.
Trainees participate actively.
 Purposes of training sessions are clearly specified.
Trainees help to modify or update training plans to fit needs.
Training objectives are developed by trainees/trainers mutually.
Specific targets for improvement are identified and understood by trainees.

Implementation and Delivery
Learning activities are experiential in nature.
Trainees participate in the implementation and delivery.
Climate for learning is collaborative, not authority oriented.
Learned concepts are applied immediately.
Trainees can modify or update training to address need.
Trainees are actively involved.
There is mutual activity between trainers and trainees.
Trainees actively share past experiences.
Trainees reexamine past experiences in light of new data.

Evaluation
Trainees evaluate their own performances.
Trainees' performances are evaluated by trainers.
Evaluation is a mutual activity of trainers and trainees.
Trainees evaluate training sessions.
Trainers use trainees' evaluations of training sessions in doing their own evaluations of those sessions.

Other Comments

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Appendix D

Cover Letter and Learning Theory Scale
2/9/83

Dear ____________:

Thank you very much for agreeing to assist me in the validation of my instrument. Enclosed you will find:

1. My dissertation proposal, for background on the study.

2. A copy of the Learning Theory Scale—the instrument to be validated.

I would appreciate feedback regarding the terminology and any other recommendations you deem appropriate.

Please select the 10 questions you feel are most valid for this study, and rank them in order of appropriateness (five in each category).

1. Most appropriate.

2. Somewhat appropriate.

If you have any questions, please feel free to call me at 383-0927 (w) or 372-1275 (h).

Again, thank you for your cooperation.
Learning Theory Scale

*1. Our training programs are content-centered rather than problem-centered.

*2. The planning of our training programs does not permit active participation of the trainees.

3. The planning of our training programs encourages active participation of the trainees.

4. The planning of our training programs encourages the learner to call upon and reexamine past experiences.

*5. Planning of our training programs is not a mutual activity of trainer and trainee.

6. Evaluation of training programs is a mutual activity of trainer and trainee.

*7. Evaluation of our previous programs is not used in planning new training programs.

8. Activities in our training programs are experiential in nature.

9. Discussion is used in our training programs.

*10. Experimentation is not used in our training programs.

*11. Attendance in our training sessions is mandatory.

*12. It is difficult to see evidence that trainees apply concepts they have learned in our training sessions.

13. We attempt to diagnose trainee needs before planning new programs.

14. We handle trainee learning problems on an individual basis.

15. Trainers are facilitators of learning rather than authorities on learning.

16. Training sessions are free of external threats (i.e., job loss, demotion, or lack of training success).

*17. Trainers are unable to identify resources needed to make change possible.

18. Training sessions encourage immediate concept application.
*19. Trainee behavior in training sessions can be considered "passive absorption."

*20. Trainees do not use each other as valuable resources.

*Indicates question for which scoring scale will be reversed.
Appendix E

Cover Letter and Modified Paine-Naumes Scale
February 4, 1983

Dear _________:

Thank you very much for agreeing to assist me in the validation of my instrument. Enclosed you will find:

1. My dissertation proposal for background on the study.

2. A copy of the modified Paine-Naumes Scale--the instrument to be validated.

I would appreciate feedback regarding the terminology and any other recommendations you deem appropriate.

Please select the 10 questions you feel are most valid for this study, and rank them in order of appropriateness (five in each category).

1. Most appropriate.

2. Somewhat appropriate.

If you have any questions, please feel free to call me at 383-0927 at work or at my home number 372-1275.

Again, thank you for your cooperation.

Sincerely,

Mrs. Carolyn Collins-Bondon, Director
Upward Bound Program

CCB/gamc

COPY

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Modified Paine-Naumes Scale

*1. Important factors, from the trainees' viewpoint, may be overlooked when training programs are planned.

2. Trainees get credit for helping to plan training programs.

3. Trainees know pretty clearly what is expected of them.

*4. There is inconsistency or there are contradictions among the policies and standards relating to training programs.

5. Trainees, during training programs, have freedom to use their abilities on the job.

*6. Information about trainees' needed proficiencies is not considered when basic training plans are made.

7. Trainee promotions are based on ability and talent.

8. Trainees know what they must do to make training plans better.

*9. There is conflict between objectives or in directions as to what trainees or groups are expected to accomplish.

10. Trainees have enough authority to modify training plans as they are implemented.

*11. Trainee opportunities are missed because of poor planning.

*12. For trainees to succeed in training programs it is necessary to play "politics."

13. The training mission of each group is clearly defined.

*14. Training policies and strategies conflict with each other.

*15. Trainees must get approval for decisions they should be able to make themselves.

16. Training policies and plans are made with great care.

*17. Getting ahead in training is a matter of luck and pull.

18. Specific targets for trainee improvement are made and understood.

*19. Trainers give assignments or directives that conflict with each other.
20. Trainees can use their good ideas.

*Indicates question for which scoring scale will be reversed.
Appendix F

Introductory Letter
March 4, 1983

Upward Bound Program

Dear

The purpose of this letter is to ask for a little of your time and cooperation. I am a graduate student studying how people learn during training. I would like to phone and ask you several questions about your training program. The questions are part of a survey. In the survey report, the anonymity of you and your company will be guaranteed.

At the completion of this survey, I will compile the information gained and make recommendations based on findings that might help you to improve your programs. Each participant will be mailed a copy.

Enclosed please find a list of some of the major questions that will help me gather information during our phone survey.

Please complete the attached postcard and return it to me. Your cooperation is greatly appreciated.

Sincerely,

Carolyn Collins-Bondon
Director

CCB/dk

enclosure

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Appendix G

Validation Questionnaire
(postcard)
1. Do you operate a training or human resource development program for mid and upper level managers? Yes ________ No ________
   If the answer is "no," please disregard questions 2 through 4 and return.

2. Would you be willing to respond in a telephone interview to questions regarding training? Yes ________ No ________

3. Would you object to the interview being taped for transcription purposes? Yes ________ No ________

4. Please indicate the best day and time during the week of _______________ for me to contact you _______________.

   Signature and Position _______________________________________

PLEASE RETURN THIS CARD BY ________, 1983.
March 16, 1983

Dear

Thank you very much for responding so quickly and agreeing to participate in our survey on how people learn during training.

I would also like to inform you that I will not be taping the interview as originally planned; however, if possible I will ask for the assistance of a stenographer.

Enclosed please find a list of the five major questions that will help me gather information during our phone survey.

Again thank you for participating, and I look forward to talking with you during the week of ____________, 1983.

Sincerely,
Appendix I

Expert Panel Members' Profiles
Name  Kenneth E. Dickie  

Degrees  Ed.D., M.S., B.S.  

Place of Employment  Western Michigan University  

Prior Experience (working with training groups, or knowledge of how people learn)  Have conducted many inservice programs with school districts, training consultant to health agencies and manufacturing industries, designed and produced self-instructional skill programs.  

Expertise (Authority in this area due to ...)  Audiovisual communication and instructional design—Ed.D. emphasis, Training and development.  

Knowledgeability (types of reading done in this area)  Books and journals related to systems design, HRD management, needs assessment, media and instruction, evaluation, etc.  

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Expert Profile Sheet

Name  Ronald Crowell

Degrees  B.A. (MSU), M.A. (U. of Toledo), Ph.D. (MSU)

Place of Employment  Western Michigan University

Prior Experience (working with training groups, or knowledge of how people learn)  Consulting and teaching

Expertise (Authority in this area due to . . .)  Focus of education (M.A. in Psychology; Ph.D. minor in Psychology). Added training at NTL (Bethel, MA) and many short workshops, etc. Also through investigating area prior to teaching class in adult learning.

Knowledgeability (types of reading done in this area)  Extensive in areas related to adult learning and development.
Expert Profile Sheet

Name  Robert Brinkerhoff

Degrees  Ed.D., M.A., Univ. of Virginia

Place of Employment  Western Michigan University

Prior Experience (working with training groups, or knowledge of how people learn)  17 yrs. T & D = 5 U.S.N., 3 with special government grants, remainder at universities.

Expertise (Authority in this area due to ...)  Experience in a variety of training settings and functions.

Knowledgeability (types of reading done in this area)  Published author in T & D and evaluation of training.
Expert Profile Sheet

Name __________ Daniel Moore ________________________________

Degrees __________ Ph.D., Michigan, 1963 ______________________

Place of Employment __________ Western Michigan University

Prior Experience (working with training groups, or knowledge of how people learn) __________ Major Human Development and Education

Former Curriculum Director—Wayne

A-V Consultant—U. of Michigan (Training)

Created and Director Educational Resources Center

Expertise (Authority in this area due to . . . ) __________ Developed and taught university courses in Adult Development and Adult Learning.

Knowledgeability (types of reading done in this area) __________ See basic list, included. [A varied 19-page reading list was submitted.]
Expert Profile Sheet

Name _____________________________

Gary Vandenberg

Degrees A.B., Kalamazoo College

Place of Employment The Upjohn Company

Prior Experience (working with training groups, or knowledge of how people learn) 5 years in Employee Development/Management Development.

Expertise (Authority in this area due to . . . ) Training in instruction in classroom for many programs; attendance at seminars sponsored by Center for Creative Leadership and National Training Laboratories.

Knowledgeability (types of reading done in this area) Training Magazine, Training & Development Journal, Malcolm Knowles work, Tedd Hermann (Right Brain/Left Brain), Learning How to Learn, Smith.
Expert Profile Sheet

Name  Lewis Walker
Degrees  A.B., M.A., Ph.D.
Place of Employment  Western Michigan University
Prior Experience (working with training groups, or knowledge of how people learn)  Have written and conducted numerous training pro-
grams for teachers, police, and adolescents.

Expertise (Authority in this area due to . . . )  Training in
learning theory and experience.

Knowledgeability (types of reading done in this area)  Psychological
literature; social psychological literature; small group analysis
training.
Expert Profile Sheet

Name  Hugh J. Brown

Degrees  B.S., M.A., Ed.D.

Place of Employment  Upjohn International, Inc.

Prior Experience (working with training groups, or knowledge of how people learn)  17 years training and development; 14 years experience sales and sales management. Guest lecturer and workshop facilitator: WMU, Kalamazoo College, Nazareth College, Worldwide subsidiaries--Upjohn International. Industrial societies and business groups.

Expertise (Authority in this area due to . . . )  Winner of W. E. Upjohn Award for training research and training program development activities. "Who's Who In International Human Resource Development."

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