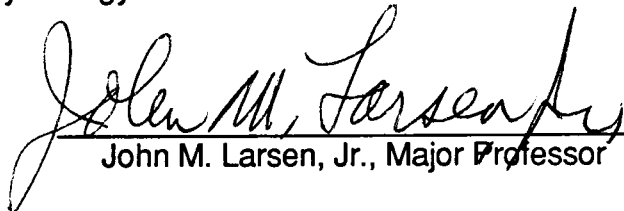
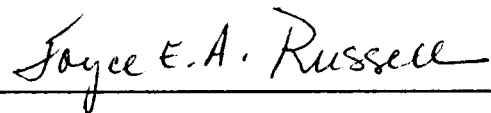


To the Graduate Council:

I am submitting herewith a dissertation written by Terri L. Lyon entitled "The Effect of Cognitive Reactions to Needs Assessment Feedback on Motivation-to-Learn Prior to Training." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Industrial/Organizational Psychology.


John M. Larsen, Jr., Major Professor

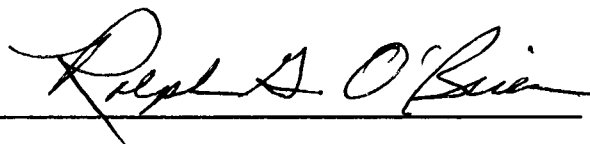
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THE EFFECT OF COGNITIVE REACTIONS TO NEEDS ASSESSMENT
FEEDBACK ON MOTIVATION-TO-LEARN PRIOR TO TRAINING

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Terri L. Lyon
May 1989

DEDICATION

This dissertation is dedicated to my parents, James and Jeanne Lyon.

My mother remains my constant inspiration and my good friend. I thank her for what she has given me to make this possible. Her love and support are cherished.

It is unfortunate that my father did not live to see me graduate. Although he never had the opportunity to attend college, he would have been an outstanding scholar. My thanks to him for his encouragement.

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ABSTRACT

Training in organizations is an ongoing activity that often consumes a large portion of the organizational budget. However, research in the area of training is sparse, particularly in areas such as determining the methods that will maximize learning in training programs. Recent research has focused in the area of trainee motivation-to-learn and how this variable is related to satisfaction with and learning in training. The present study was conducted to determine the effect of providing feedback of needs assessment information on individuals' motivation-to-learn prior to training. Individuals who were to receive feedback from a needs assessment prior to training were postulated to report higher motivation-to-learn than were individuals who were not to receive feedback from a needs assessment. Individuals who received feedback from a needs assessment prior to training were postulated to have higher posttest training scores than were individuals who did not receive feedback from a needs assessment. To examine more specifically how reactions to feedback impact motivation-to-learn, motivation-to-learn prior to training was examined as it was impacted by cognitive mechanisms underlying reaction to feedback such as self-satisfaction with performance, self-perceived task competence, self-set goals, and perceived accuracy of feedback. Data were collected from supervisors who attended a policies and procedures training program. One group was given feedback from needs assessment, consisting of a knowledge pretest, while another group completed the pretest but did not receive feedback.

Measures of perceived accuracy of feedback, self-perceived task competence, self-satisfaction, self-set goals for future performance, and motivation-to-learn were collected from the group who received feedback. A posttest measure of knowledge was collected from both groups.

The results showed that individuals who received feedback from needs assessment had higher posttest assessment scores than did those who did not receive needs assessment feedback. Also, individuals who received feedback from needs assessment reported higher initial motivation-to-learn than did those who did not receive needs assessment feedback.

For individuals who received feedback that actual performance was less than expected performance, the closer actual performance was to expected performance, the more feedback was perceived as accurate. Individuals attended to feedback information and changed their self-perceived task competence in logical ways. Individuals who received feedback that actual performance was lower than expected performance lowered their self-perceived task competence while individuals who received feedback that actual performance was higher than expected performance raised their self-perceived task competence. If actual performance was lower than expected performance, individuals were dissatisfied with performance. In terms of motivation-to-learn, individuals who were dissatisfied with the thought of performing the same on the posttest as they did on the pretest reported higher motivation-to-learn than those who were not dissatisfied. Individuals who tended to have internal locus of control set higher goals, had higher self-perceived task competence, but did

not show less self-satisfaction with performance than did those individuals who tended to be externals.

It was concluded that feedback from needs assessment information is useful to the extent that participants score higher on a posttest assessment than did individuals who did not receive feedback from skills assessment. Although it was speculated that motivation-to-learn would increase after feedback, average expressed motivation-to-learn was not significantly different after feedback regardless of the difference between participants' actual performance and expected performance. And regardless of the level of motivation-to-learn after feedback, posttest scores were higher for the feedback group than for the no feedback group; there was no relationship between motivation-to-learn and posttest performance in the present study.

More research is recommended in the area of motivation-to-learn, specifically on how motivation-to-learn relates to performance in training and to posttest assessment performance. In future research the variables that impact motivation-to-learn at different times prior to and during training should be examined. Laboratory research would be useful to isolate the variables that impact motivation-to-learn and to determine whether and how motivation-to-learn is related to increased performance in training.

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CHAPTER I

INTRODUCTION

Employee training is used by organizations to bring new employees up to performance standards, to retrain employees for new positions, and in a variety of other organizational areas. Today, with changing technology, new market strategies, and increasing international competition, training and development are even more vital to organizations' effectiveness.

Given the magnitude of training and development efforts in organizations, rigorous research on training issues is surprisingly scarce. Research needs in training and development encompass many areas, from assessing needs to evaluating the effectiveness of different training methods. In reviews of the training literature, Goldstein (1980) and Wexley (1984) recommended more research focusing on the needs assessment phase of training. These researchers suggest one major area of research focus should be determining the readiness of the trainee for learning.

Trainability refers to a person's ability to acquire the skills, knowledge or behaviors necessary to perform a job at a given level and to achieve these outcomes in a given time (Robertson and Downs, 1979). Trainability is a function of the trainee's ability and motivation (Maier, 1973). Trainee ability has been studied to a greater extent than trainee motivation and the impact of trainee motivation on learning. Wexley (1984), in his review, noted that the research has focused almost exclusively on trainee ability and that more

research is needed on the motivational component of trainability. Trainees that have the required ability for an organizational training program but who lack the motivation to complete it will probably not benefit from training. Motivated trainees will probably learn more during training, presumably because they will pay closer attention during instruction and will work harder and longer than will unmotivated trainees. More research on motivation-to-learn needs to be conducted so that the effectiveness of training can be maximized.

Unfortunately, the field of motivation lacks an integrated model that is accepted by a majority of theorists. Instead, motivation theories tend to be focused on one characteristic of motivation such as need, equity, or expectancy. Research on motivation in a training context has not been focused on any particular theory of motivation. For example, in an early study focusing on trainee motivation, Ryman and Biersner (1975) surveyed a group of trainees in the Navy School of Divers about training confidence and motivation and found that scores were related to success in the training program. Sanders and Yanouzas (1983) developed a method to socialize trainees at the beginning of training so that they were maximally prepared to learn the training material that involved goal setting for performance in training.

More recently, Noe (1986) postulated a model of the relationship between trainee attributes and attitudes and performance in training that includes motivation-to-learn as a variable. Noe and Schmitt (1986) and other recent researchers use the term motivation-to-learn to describe the trainees'

willingness to learn the material presented in the training program. Noe and Schmitt tested the model using a group of school administrators as subjects. They hypothesized that trainees' reaction to needs assessment, locus of control, self efficacy, and expectations about training would be related to motivation-to-learn, reaction to training, learning in training, transfer of learning to the job, and to change in important organizational criteria. Although the results did not adequately support their model, their research was an initial step in understanding motivation prior to and during training. If motivation-to-learn can be positively impacted, organizations should be able to greatly increase the effectiveness of their training. More research is needed in this important area.

Campion and Lord (1982) espouse control systems theory to explain how individuals are motivated. A control system includes a referent state, and progress toward that state is monitored with a sensing function. Campion and Lord conceive of the system as a consistent process of monitoring, comparing, and adjusting effort or cognitions. In their research, feedback and goal setting are central to future performance. Feedback from performance is compared to a standard held by the individual. The individual chooses the standard or goal for future performance based on that comparison. A variety of variables impact this process, including self-reactions to feedback such as self-satisfaction, and individual difference characteristics.

In a needs assessment situation feedback may be useful to provide the trainees with information that may increase their performance. The

results of a carefully conducted needs assessment should give the trainee an indication of his or her strengths and weaknesses in the areas where training is provided. Research on the effects of feedback of various measures of performance has been conducted, but no research has demonstrated the impact of feedback from needs assessment in a training context. In the present study the impact of needs assessment feedback on training posttest performance was examined. Feedback of needs assessment information was postulated to result in an improvement in training posttest performance.

As hypothesized by Noe and Schmitt (1986), trainees' reaction to needs assessment may be an important contributor to their motivation-to-learn in the training program. Hicks (1984), Moitra (1976), and Froman (1977) found that trainee's expectancies about training were related to motivation-to-learn prior to training, presumably because of the clarification of what the trainee can expect to gain from training and the facilitation of personal goal setting. Feedback from needs assessment should have a similar result. Therefore, in the present study the process of providing feedback of needs assessment results to individual trainees was postulated to result in higher initial motivation-to-learn prior to training.

Feedback of needs assessment results to the trainee should provide valuable information for personal use and should increase motivation-to-learn in the training program by clarifying expectancies, strengths and weaknesses, and allowing for goal setting. However, as shown by research in the feedback area, individuals react in different ways to feedback about their skills. The way in which individuals react to feedback may affect the

impact of the feedback and the use of the feedback for guiding future performance. At each point in the control system when an individual receives feedback, he or she probably reacts to the feedback before making alterations in goals for future performance. Ilgen, Fisher, and Taylor (1979) developed a model of feedback based on research that postulates that the way feedback is perceived, accepted, and responded to by a person is in part a function of the source of the message, the sign of the message, and the individual's frame of reference when he or she receives the message. Locus of control (Rotter, 1966) has been studied as a variable that may impact the perception of, acceptance of, and response to feedback. Needs assessment feedback may have differing impact on individual trainees in a training situation depending on these variables and conditions.

In keeping with Campion and Lord's (1982) dynamic model of the feedback/goal setting process, Bandura and Cervone (1983, 1986) studied individual's cognitive reactions to feedback and the impact of those reactions on motivation for future performance. Their research was focused on self-perceived task competence, self-satisfaction, and self-set goals as cognitive mechanisms underlying motivation. These cognitive mechanisms are self-reactions to feedback from performance. First, the level of past performance influences self-perceived task competence, which in turn influences how the individual feels about his or her ability to perform the behavior again. Second, self-satisfaction refers to the individual's satisfaction with the level of performance attained, but specifically focuses on whether the individual would be satisfied with the same level of performance in future attempts.

Finally, in a control-theory manner, self-set goals for future performance are motivational in themselves.

These variables have been found to contribute to motivation for future performance, depending on the discrepancy between an individual's expected performance and actual performance. That is, the favorability and the magnitude of the discrepancy between actual performance compared to expected performance may impact self reactions to feedback and therefore, motivation-to-learn on future attempts. One focus of the present study was on individuals' self-reactions after feedback from needs assessment and how the self-reactions are related to expressed motivation-to-learn. The variables studied include perceived accuracy of feedback, self-perceived task competence, self-satisfaction, and self-set goals. These variables were examined within various feedback discrepancy conditions. For example, the subjects were grouped according to whether their performance was better than they expected, whether their performance was just short of what they expected, and whether their performance was far short of what they expected.

In the present study the research of Bandura and Cervone (1986) was extended. In Bandura and Cervones' research, it was found that within feedback discrepancy conditions, goals for future performance varied widely. In the present study it was postulated that the study of locus of control would shed some light on how individuals react to feedback. Individuals who tend to have internal locus of control have been found to accept and use feedback for the improvement of performance more than individuals who tend to have

external locus of control. For the present study it was postulated that locus of control would moderate the relationship between the discrepancy between actual and expected performance and cognitive reactions to feedback, with individuals who tend to be internal setting higher goals for learning, being more dissatisfied with negative feedback discrepancy, and perceiving themselves as more competent than individuals who tend to be external.

1. SUMMARY

To summarize, the focus in the present study was on areas which are important for understanding trainee motivation-to-learn. The effect of feedback from needs assessment on expressed motivation-to-learn prior to training and on posttest training performance was examined. Cognitive reactions to needs assessment feedback in terms of perceived accuracy of feedback, self-perceived task competence, self-set goals, and self-satisfaction were examined along with the impact of these variables on motivation-to-learn. Locus of control was examined as a moderator of these relationships.

A review of the relevant literature relating to training and development, feedback, motivation-to-learn in training is contained in Chapter II. Following the literature review, the hypotheses of the study are presented. Chapter III contains a review of the methodology of the study. Chapter IV contains the results of the study. Finally, Chapter V contains a discussion of the results of the study, the limitations of the study, and comments on the practical and theoretical implications of the study.

CHAPTER II

LITERATURE REVIEW

Training has been defined by Landy (1985) as "a set of planned activities on the part of an organization to increase the job knowledge and skills or to modify the attitudes and social behavior of its members in ways consistent with the goals of the organization and the requirements of the job" (p. 263).

Goldstein (1986) views training as a system, with needs assessment conducted first, objectives of the program derived from the needs assessment information, the program designed, criteria developed by which to assess if goals are being met, and continual feedback toward modification of the program to meet its goals.

As part of needs assessment, the trainee's readiness for training, or trainability, can be assessed. Trainability refers to a person's ability to acquire the skills, knowledge, or behaviors necessary to perform a task at a given level, and to achieve these outcomes in a given time (Robertson and Downs, 1979). Trainee ability has been found to impact training performance (Reilly and Manese, 1979; Robertson and Downs, 1979) but trainee motivation has been the focus of fewer studies. Trainee attitudes, expectancies, or motivation-to-learn prior to training were found to be predictive of success in training (Ryman and Biersner, 1975; Tubiana and Ben-Shakar, 1983). More recently, Noe and Schmitt (1986) found that trainees' reaction to the assessment of their skills

(conducted before training) predicted satisfaction in training. Hicks (1984), Moitra (1976), and Froman (1977) found that expectancies about training impacted motivation-to-learn prior to training and in some cases self-reported learning in the program.

Unfortunately, no integrated model of motivation exists that can be used to guide research and application of results in the training area. One area of recent research, control systems theory, may be helpful in studying trainee motivation. According to Campion and Lord (1982), a control system includes a referent (or desired) state and progress toward that state is monitored with a sensing function. If a discrepancy occurs between the actual and the desired state, the individual must make a decision whether to exert effort toward correcting the discrepancy or whether to change the referent state. Campion and Lord conceive of the system as a consistent process of monitoring, comparing, and adjustment of effort or cognitions. Feedback allows a constant comparison to a standard and allows for future goal setting. In the case of a discrepancy between expected and actual performance, an individual can correct a performance discrepancy either by changing referent goals or by changing behavioral output.

In keeping with control systems theory, conducting a needs assessment and providing the trainee with specific feedback may increase that trainee's motivation-to-learn. In the present study it was postulated that individuals who will receive feedback from needs assessment will report higher initial motivation-to-learn and will have higher posttest training performance than will individuals who will not receive feedback from needs assessment.

Although feedback has been shown to be effective in a variety of situations, less research has been conducted on the cognitive reactions to feedback and how these affect motivation. Research on individuals' reaction to needs assessment feedback may shed light on the mechanisms underlying motivation in a training setting. Much feedback research has focused on how future performance levels are increased with feedback provided to the person about past performance. A new direction for research has been to focus on the individual's reaction to and use of feedback. Ilgen, Fisher, and Taylor (1979) present a model of individual use of feedback in which they postulate that the way feedback is perceived, accepted, and responded to by an individual is a function of the source of the message, the sign of the message, and the individual's frame of reference when he or she receives the message. Locus of control (Rotter, 1966) has been studied as an individual difference variable that may affect the perception, acceptance, and use of feedback.

Bandura and Cervone (1986) have studied individuals' cognitive reactions to feedback and the impact of those reactions on motivation for future performance. The focus of their research was on self-perceived task competence, self-set goals, and self-satisfaction as cognitive mechanisms underlying motivation for future performance. They found that each of these variables differentially contributed to motivation under various false feedback conditions. Continued study of these variables may shed more light on how needs assessment feedback can impact individuals' motivation-to-learn prior to training.

The present study is focused on trainee reaction to needs assessment feedback in terms of perceived accuracy of feedback, self-perceived task competence, self-satisfaction, and self-set goals, and subsequent motivation-to-learn prior to training. Locus of control was examined as it impacts reaction to feedback.

In this chapter, relevant literature will be reviewed and the hypotheses of the study will be presented. Background information on training and development is presented first. The research in the areas of trainability, feedback, and motivation-to-learn is reviewed and research needs will be presented. The research focus of the study will be reviewed, followed by the hypotheses of the study.

1. TRAINING AND DEVELOPMENT

Goldstein (1986) has estimated that industrial corporations spend \$40 billion a year and the federal government spends \$500 million a year on training programs in this country. Training and development continue to be a necessity to any organization, both to prepare new employees for their jobs and to prepare current employees for job changes, so that organizations can compete in constantly changing technological markets (Wexley, 1984). Hall and Fukami (1979) postulate that individual learning is of increasing importance to an organization because of the decline in employee identification with the organization, the increase in dual career couples, the need for mid-career learning, and the turbulent organizational environments of today.

Training has been defined by Landy (1985) as "a set of planned activities on the part of an organization to increase the job knowledge and skills or to modify the attitudes and social behavior of its members in ways consistent with the goals of the organization and the requirement of the job" (p. 263). In an organization, training may be on-site or off-site and may encompass a variety of methods, from lectures to business games. Despite the ubiquity of training and development efforts, little research has been conducted in this area. According to Hinrichs (1976), there is no universally accepted model of the training process to guide research. Campbell (1971), Wexley (1984), and Goldstein (1980), in reviews of the training literature, have called for more research in all areas of the field. Since training is a crucial human resource function for organizations, rigorous research on the training process and variables which may impact that process would be of great benefit.

Goldstein (1986) refers to the systematic development of training programs as instructional technology. In the systems approach, training must be a planned process; each phase of training affects and is affected by the other components of the system, and continual feedback is necessary to ensure that training programs are meeting goals. He presents a model of an instructional system that includes the interrelated phases of needs assessment, design of training, development of criteria, choice of evaluation design, and evaluation. In Goldstein's model, the evaluation of training provides a continuous cycle of feedback about whether the training is meeting the objectives of the program.

The determination of the objectives of a training program should be based on a thorough analysis of the individual and organizational development needs. The needs assessment phase consists of organizational analysis, task or job analysis, and person analysis (McGehee and Thayer, 1961). Although the needs assessment phase is critical for the effective functioning of the training program, it is often poorly conducted or overlooked altogether. The first step in needs assessment, the organizational analysis, is an examination of the short-term and long-term goals of the company, the organizational climate as it affects training, and of the resources available for training. For example, the training staff must assess whether top management supports the training effort and whether management at all levels will support the transfer of the learning material. The trainee who perceives that he or she will be unable to use the skills learned in training back on the job will probably find little reason to learn the material. Past experiences with the training and development department can also impact trainees' expectations of what the current program will entail.

The task or job analysis is the process of breaking down the job into its component parts and specifying the attributes and actions that are necessary to perform the job. The job analysis information is useful in deriving the objectives of the training program and provides the basis for the next step in needs assessment, the person analysis.

The person analysis is conducted to determine how the knowledge, skills, and abilities the employees possess measure up to those needed on the job as determined by the task or job analysis. Performance appraisal

techniques usually provide the basis of the person analysis. Techniques for person analysis can include behavioral ratings, output measures, and proficiency or job knowledge tests (Wexley and Latham, 1981).

An important step after the needs assessment has been conducted is to consider the trainees' readiness for learning, or trainability. The research on trainability is discussed in the section below.

2. TRAINABILITY

Trainability refers to a person's ability and motivation to acquire the skills, knowledge, or behaviors necessary to perform a job at a given level and to achieve these outcomes in a given time (Robertson and Downs, 1979). As part of the person analysis, the potential trainees who need to improve skills, knowledge, or behaviors are identified. After identifying potential trainees, the issue of the employee's trainability, the readiness of the employee for training, can be examined.

According to Maier (1973), trainability is a function of the trainees' ability and motivation. Employees' maturational and experiential factors prepare them to a certain extent for the learning environment in the training program. But although a trainee may have the ability to complete the material in training, he or she should also be motivated to complete the training. Although never examined in research, maximization of trainee motivation before the training program actually begins (Sanders and Yanouzas, 1983) may help improve the effectiveness of training, since a trainee who begins a program with a high level of motivation should be able to maximize learning. The trainee may be

better prepared, pay more attention, and learn how to maximize the match between the program and their needs. The need for more focus on trainee motivation is evident from the results of a recent survey in which 47% of the companies in the sample cited lack of trainee motivation as a reason that training and development efforts fail (*Training and Development Journal* , 1986). Given that trainability is an important concept, the literature in the area is reviewed. Research on trainee ability is reviewed below, followed by a review of the research on trainee motivation.

Trainee Ability

Trainee ability as a predictor of training performance has been the focus of several studies. Ability refers to the knowledge, skills, and abilities necessary to successfully master the training material. Robertson and Downs (1979) reviewed a series of studies in which trainability tests were used to predict performance in training. Reilly and Manese (1979) used a self-paced training course to predict performance in in a long-term training course in electronic switching systems for Bell System employees. Since the longer course was expensive to conduct for each trainee, the ability to predict training performance had much utility to the company. Asher and Sciarrino (1974) found that particular work sample tests had more validity than others when training performance was used as the criterion. Training performance has also been used to predict future job performance. Gordon and Cohen (1973) used success in training to predict success on the job in a welder training course.

Bale, Rickus, and Ambler (1973) used undergraduate training grades to predict advanced level aviation performance.

The results of the studies reviewed above suggest that trainee ability can be used to predict performance in training. The research on trainee motivation as a predictor of training performance is reviewed below.

Trainee Motivation

Hall and Fukami (1979) postulated that the more a learner is ready and motivated to learn, the more learning will occur. Motivation-to-learn has been described as a specific desire on the part of the trainee to learn the material presented in the training program (Hicks, 1984). Unfortunately, motivation-to-learn prior to training has not received a great deal of research attention. In one study, Ryman and Biersner (1975) surveyed trainees in the Navy School for Divers three days prior to training. The questions on the survey dealt with the trainee's confidence in his ability to complete the program, with the support the trainee had from significant others to complete the program, and with course expectations. The scores on the questionnaires were found to predict success in the training program. They also correlated the motivation scores with a test of serum uric acid variability, which has been shown to be related to motivation, drive, and achievement. The correlation between the two variables was significant, indicating that the results from their motivation-to-learn measure converged with another measure of motivation. Deleo and Slaughter (1978) found that satisfaction with an Air Force Traffic Safety program was positively related to the answers to such pretest questions as "I am looking

forward to taking this course" and "I will learn a number of things from this course". Tubiana and Ben-Shakar (1982) used a questionnaire focusing on trainee motivation and personality variables to predict success in training. Hicks (1984) and Moitra (1976) found that trainee expectations, prior to training, that effort would lead to performance and that performance would lead to valued outcomes were related to self reported measures of learning after the program was over.

Noe and Schmitt (1986) examined trainee attitudes and attributes and how they might impact motivation-to-learn and learning in a training program. Specifically, their research focused on trainee locus of control, expectancies, career planning, job involvement, and reaction to needs assessment. They found that job involvement and career planning were related to learning and behavior change. Also, reaction to needs assessment predicted satisfaction with training.

Sanders and Yanouzas (1983) developed a method to socialize trainees at the beginning of training so that they were maximally ready to learn the training material. The method consisted of the following steps. First, the norms and goals that the trainer believes are important for trainees to embrace if learning is to occur and if expected outcomes are to be achieved are identified. Next the trainer assesses whether the trainee is ready for learning and discusses the results with the trainee. The trainee then sets personal learning goals and objectives. After the course is completed the trainee compares those goals with actual outcomes.

In sum, the initial research in this area suggests that organizations may benefit from maximizing trainee motivation-to-learn prior to training since motivation-to-learn has been shown to be related to various outcomes that are positive for the organization. Unfortunately, no integrated model of motivation exists that has been used to guide past research and can be used to guide future research in the training area.

3. MOTIVATION THEORY

There are several varieties of motivation theories, encompassing goals, equity, expectancy, and needs. One motivation theory, expectancy theory, has its focus on the cognitions of the individual (Mitchell, 1982). It is postulated that an individual will choose to put forth effort in a situation where the consequences are favorable and where effort is minimized. Three concepts are the focus of the theory - expectancy, instrumentality, and valence. Expectancies refer to the individual's perception of the likelihood that a certain amount of effort will lead to improved performance. Instrumentality refers to the individual's perception of the likelihood that improved performance will lead to attainment of valued outcomes. Valence refers to that individual's beliefs about the desirability of the valued outcomes. According to the theory, before an individual chooses to put forth effort, he or she asks him or herself whether effort will lead to improved performance, whether improved performance will lead to rewards, and whether those rewards are valued. A number of versions of this theory have been espoused and methodological issues about the determination of level of effort have not been resolved

(Mitchell, 1982), but the theory still offers some useful prescriptions for the training staff in the design of the training program. To maximize motivation in training, trainees should see that effort on their part will lead to learning and that learning will be tied to some reward that is valued by the trainee.

Goal setting has been studied extensively by Locke and his associates and the research is reviewed in Locke, Shaw, Saari, and Latham (1981). Goal setting theorists suggest that an individual's behavior is the result of attempting to achieve various goals. These goals can be external to the individual, such as job assignments, or internal to the individual, such as a personal weight loss goal. Researchers have shown that goals are more effective if they are moderately difficult, specific, and accepted by the individual. Goal setting in conjunction with feedback has been shown to result in higher performance than conditions of goal setting alone or feedback alone (Locke et al., 1981). If this research extends to a training setting, to maximize motivation in a training program, the trainee should have a moderately difficult, specific goal to work toward that he or she has accepted, and feedback about how performance matches that goal.

One area of recent research, control systems theory, may be helpful in learning about trainee motivation. According to Campion and Lord (1982), a control system includes a referent (or desired) state and progress toward that state is monitored with a sensing function. If a discrepancy occurs between the actual and the desired state, the individual must make a decision whether to exert effort toward correcting the discrepancy or whether to change the referent state. Campion and Lord conceive of the system as a consistent process of

monitoring, comparing, and adjustment of effort or cognitions. Feedback allows a constant comparison to a standard and allows for future goal setting. In the case of a discrepancy between expected and actual performance, an individual can correct a performance discrepancy either by changing referent goals or by changing behavioral output.

Feedback seems to be important for maximizing motivation for performance. Providing feedback from needs assessment to a trainee prior to training may improve motivation-to-learn. In the next section, in light of the importance of feedback for improved performance, the research on feedback will be reviewed.

4. NEEDS ASSESSMENT WITH FEEDBACK

Feedback is information about the difference between a referent level and actual level of a variable (Ramaprasad, 1983). Feedback can serve two functions, a directional function that allows specification of appropriate behaviors and a motivational function by its association with outcomes and desired rewards. Feedback is crucial in organizational environments for knowledge of performance and the learning of organizational roles (Katz and Kahn, 1978). The traditional focus of feedback research has been on the relationship of goal setting and feedback to performance. Research has shown that feedback consistently improves the level of performance. However, the mechanisms through which feedback causes motivation under certain conditions has not received as much attention (Bandura and Cervone, 1983; Ilgen et al., 1979).

Feedback is important in the arrangement of the training environment. According to Wexley and Latham (1981), feedback serves three functions in promoting learning and motivation. First, it tells the trainees whether their performance is on target and allows for alterations in subsequent performance. Second, knowledge of level of performance also makes the training environment more interesting to the trainee and makes the trainee more willing to learn. Finally, it leads to either implicit or explicit goal setting for maintaining or improving performance.

Information derived from a needs assessment is important to the training staff for the design of the program but may also be useful to the trainee. Information that the employee attains about himself or herself from the needs assessment may be useful for determining strengths and weaknesses, for setting learning goals, and for clarifying expectations about the training program. Nevertheless, employees are often sent to training programs without any specific goals for improvement or awareness of what they might gain from the training program. In mandatory training, for example, the trainee's needs and the objectives of the program may not be matched. And, because no information is provided about his or her level of competency, the trainee must use a self assessment to judge his or her level of competency. Personal goals for learning, if any are set by the trainee, may not be based on the goals or objectives of the training program. In addition, the trainee may not perceive the match between the training program's objectives and personal developmental needs. Emener, Rasch, and Spector (1983) measured educators' willingness to attend an inservice training program and found that it was negatively related

to training need. The educators who could have benefited from training may have been more willing to attend the inservice if they were made aware of their need for training.

Hicks (1984) has shown that when training was 'previewed', trainees were more aware of expectancies and instrumentalities and therefore were more motivated to learn. Hicks and Klimoski (1987) found that degree of choice about a training program was related to higher training achievement scores and to higher self-reported learning. Ford and Noe (1987) correlated attitudes toward training utility with self-reported needs for training and found that managers with negative attitudes toward training tend to report less need for training than do managers with positive attitudes toward training. If a particular training program is required for all employees, the training staff should make an effort to let each employee know what he or she can gain from the program. This effort should clarify trainees' expectancies and increase their motivation-to-learn because of the perceived link between effort and valued outcomes. It may be that lessening the 'reality shock' associated with a new situation probably provides better preparation to begin learning. It is important to clarify how an employee's needs can be met by a particular program. The program may be an informative course with something to offer to any employee regardless of their tenure with the organization, but if the trainee is not prepared to learn the material from the beginning, valuable training time may be lost. It is speculated that maximizing motivation from the beginning of the program should increase the effectiveness of training and provide the most benefit to the trainees and to the organization.

In his model, Noe (1986) presents possible trainee attributes and attitudes that may affect motivation-to-learn prior to training and subsequent training effectiveness. His model includes the variables of locus of control, expectancies and self-efficacy, career and job attitudes, and reaction to needs assessment as predictors of motivation-to-learn, learning, behavior change, and results. Noe and Schmitt (1986) tested the model with a group of 60 school administrators who attended a training program designed to improve the administrative and interpersonal skills of educators. The initial model was not satisfactorily supported and a revised model was postulated based on the data collected. In the revised model locus of control is antecedent to reaction to needs assessment and reaction to needs assessment is antecedent to pre-training motivation and reaction to training. The researchers found that trainees' reaction to needs assessment was an important antecedent to trainee satisfaction with the program. Trainees who perceived that the needs assessment accurately identified their strengths and weaknesses were more likely to see the training content as being useful to them. In many organizations, training departments respond to fads in training by offering the latest training programs on the market. Employees in such organizations may not have a clear idea of what kinds of programs are offered and what to expect from them. In contrast, an organization that bases its training programs on a thorough needs assessment may be able to better communicate how its training programs can impact a trainee's knowledge, skills, or abilities.

Based on the research in the preceding sections, the following hypotheses are postulated for the present study. Individuals who receive

feedback from needs assessment will report initial higher motivation-to-learn than will individuals who do not receive feedback from needs assessment prior to training. In addition, individuals who receive feedback from needs assessment will have higher posttest training scores than will individuals who do not receive feedback from needs assessment prior to training. In the next section, research on individual's reaction to feedback is presented and a framework for the study of reaction to feedback is discussed.

5. INDIVIDUAL REACTION TO FEEDBACK

Needs assessment feedback would seem to allow a trainee to assess strengths and weaknesses, set goals for learning, and clarify expectancies for training. However, research in other areas indicates that individuals react to feedback about their skills in different ways. In some training programs, a trainee is chosen to attend because of a need in a particular area or areas, based on a needs assessment which shows a less than adequate performance level for the trainee. Understanding the trainee's reaction to feedback, particularly negative feedback, is important for understanding motivation-to-learn prior to training. An individual's reaction to feedback may determine the magnitude of the impact of the feedback. The literature on reaction to feedback is reviewed below.

Individual Use of Feedback

Current feedback research tends to be focused on the individual's use of feedback. According to Stone and Stone (1985), feedback provides

information useful in developing or changing beliefs about task competence. Examples of moderators of feedback and responses to that feedback are feedback perception, acceptance of feedback, desire to respond to feedback, performance goals, individual differences, and external constraints.

Ilgen, Fisher, and Taylor Ilgen, Fisher, and Taylor (1979) discuss feedback variables in detail in their model on individual use of feedback. Their review of the literature attempted to integrate the human performance and information processing research on feedback into a general process orientation. The way feedback is perceived by a person is a function of the source of the message, the sign of the message, and the individual's frame of reference when he or she receives the message. The desire to accept the feedback is also affected by the source, sign, and characteristics of the individual recipient. The desire to respond to the feedback is a function of the power the source has over the recipient and the recipient's perceptions of efficacy about performing that particular behavior.

In the model, source of feedback can be other individuals who have observed the employee's performance and who rate it. Feedback may also be derived from the performance of the job itself. Finally, employees can be their own source of feedback by attempting to compare their performance with some internal standard. Since the individual has different sources of feedback, it would be interesting to know more about on which sources individuals rely for that information. Greller and Herold (1975) found that individuals rely on sources of feedback that are psychologically close to them, such as self-satisfaction, more than on sources that are more distant, such as a supervisor

from another department. Herold, Liden, and Leatherwood (1987) found that individuals rated feedback from themselves and other psychologically close sources as more positive and useful than feedback from sources such as the formal organization. Also, feedback from one source may be accepted or rejected depending on how consistent it is with that of other sources.

The individual characteristics of the recipient play an important role in the perception, acceptance, and desire to respond to feedback. The recipient processes feedback information from his or her frame of reference which is developed over time from past experiences. The perception, acceptance, and use of feedback will be discussed in the sections below.

Perceived Feedback. The feedback message must first be perceived by the individual. The way it is perceived is a function of the source of the message, the message itself, and characteristics of the recipient. The more credible the source, the more likely that feedback will be perceived as accurate. The perception of the message itself is a function of the timing, sign, and frequency of the message. The closer in time the message is to the behavior, the more likely that the message will be perceived as related to that behavior. In previous research, positive feedback has been perceived as more accurate than negative feedback. The more frequent the feedback, the more accurately it is perceived. Finally, the recipient perceives feedback from his or her own frame of reference. From past experiences the recipient has an idea of what the magnitude and sign of the feedback should be, therefore individual difference variables can moderate the way an individual perceives feedback.

Acceptance of Feedback. The acceptance of the feedback message is also dependent upon the source of the message, the message itself, and the recipient. The more credible the source, the more likely feedback will be accepted. Positive feedback has been found to be more accepted than negative feedback. Finally, the more consistent the feedback (i.e., from multiple sources), the more it will be accepted by the recipient.

Desire to Respond to Feedback. As with the perception and acceptance of feedback, the desire to respond to feedback is function of the source of the feedback, the message, and the characteristics of the recipient. The more credible and powerful the source, the more likely the individual will respond to the feedback. The informational and motivational value of feedback is correlated with the desire to respond to it. Expectancies of whether the employee feels he or she can respond will be related to response. Various individual characteristics are associated with desire to respond to feedback.

In sum, the Ilgen et al. (1979) model provides a useful framework for studying the impact of and use of feedback by an individual. In contrast to the traditional goal setting literature, the effect of feedback is seen as impacting and being impacted by a variety of factors.

According to Schrauger and Schoenemann (1979), more research is needed to explicate the variables that will predict acceptance of positive or negative discrepant information. Stone and Stone (1985) call for more research about feedback in actual work settings and especially with a focus on negative feedback. It is important that this be examined in a training context,

since reaction to feedback may impact trainee motivation and the effectiveness of a training program.

Cognitive Processes in Control Systems

A future research direction suggested by Ilgen et al. (1979) was a greater understanding of the perception of feedback, especially negative feedback. Cognitive processes involved in perception are geared toward maintaining a psychological climate that is congruent with existing individual dispositions (James and Jones, 1980). The understanding of the precise nature of the effect of feedback on motivation and performance would have great utility to an organization.

According to Ilgen (1971), motivation for future performance is not a monotonically increasing function of the degree of performance-goal discrepancy. Rather, performance that is moderately short of a goal should cause increased effort, but performance that falls far short of a goal may cause the individual to believe no amount of effort will result in adequate performance (Bandura and Cervone, 1983). In support of this, Halperin, Snyder, Shenkel, and Houston (1976) found that the more negative the discrepancy between expected performance and actual performance, the less readily is the feedback accepted. Ilgen found that performance satisfaction was a monotonically increasing function of both the algebraic discrepancy between expected performance and actual performance, and the level of the actual performance itself.

Bandura and Cervone Bandura and Cervone (1983,1986) have researched several cognitive mechanisms underlying performance feedback and motivation. These cognitive mechanisms include self-satisfaction, self-perceived task competence, and self-set goals, and are described below.

Self-Satisfaction. The first mechanism underlying feedback and motivation is self-satisfaction. In a control system manner, the goals that individuals set for themselves are compared with actual performance. If a negative discrepancy occurs (actual performance is less than expected performance) the result is a feeling of dissatisfaction with the performance, which provides incentive for future effort. The greater the individual's dissatisfaction, the more effort the individual would put forth on the next task. For this process to have such a motivational effect, goals or standards of performance must be accepted and feedback about actual performance must be available. Bandura and Cervone (1983) found that in conditions of feedback alone or goal setting alone, this motivational effect was not found.

Self-Perceived Task Competence. The second mechanism underlying motivation is perceived self-efficacy (Bandura, 1982) or self-perceived task competence. Self-perceived task competence is related to effort-performance perceptions and is the belief that one can successfully execute the behavior required to cope with new situations (Bandura, 1977). Self-perceived task competence is affected by how well one has performed in the past, by observing others taking particular actions, by physiological arousal, and by cognitive processes independent of those above. Individuals think about their capabilities and determine efforts and choices based on those

capabilities. The extent to which a person feels capable of performing an act is strongly predictive of effort toward that goal (Locke, Frederick, Lee, and Bobko, 1984). Mento, Cartledge, and Locke (1980) found that perceived ability accounted for unique variance in performance. They postulate self-concept as an important motivational concept and believe that further research in this area would be worthwhile.

Locke et al. (1984) and Bandura (1982) found that self-perceived task competence was highly related to actual (future) task performance, even more strongly related than to past performance. Bandura found that self-perceived task competence affected goal level, task performance, goal commitment, and even choice of a goal. Various researchers (Battle, 1965; Battle, 1966; Feather, 1963; Feather and Simon, 1973) have found that individuals' self perception of competence can affect their motivation on a task. Bandura and Cervone (1983) found that an individual's self-perceived task competence was positively related to increased effort as a result of receiving discrepant performance feedback. Podsakoff and Fahr (1986) found that negative feedback depressed the self-confidence scores of subjects but future performance by the subjects was improved.

Gist (1987) has reviewed the literature on self-efficacy, or self-perceived task competence, and discusses the implications for organizational behavior and human resource management. Research has shown that self-efficacy predicts motivation and task performance in organizational settings. She suggests more research on self-efficacy and how it impacts reactions to feedback and how feedback affects subsequent performance.

Wells and Marwell (1976) and Stone and Stone (1985) found that general self-esteem is positively correlated with individual's self-efficacy or self-perceived task competence. Stone and Stone (1985) refer to self-efficacy as task-based self-esteem. While self-perceived task competence refers to effort-performance beliefs about a particular behavior, general self-esteem refers to beliefs about competency across a wide range of behaviors.

Lawler (1973) argues that the greater the person's general self-esteem, the greater are his or her expectancies about the relationship between effort and performance. In a study focusing on this, Orpen and Nkohande (1977) found that self-esteem was related to effort-performance expectancies in a group of white managers in South Africa, however no effect was found for a group of black managers. Fitch (1970) found that individuals with high self-esteem were more likely to attribute the causes of successes to internal sources and the causes of failures to external sources. Individuals with low self-esteem attributed significantly more failures to internal sources than did individuals with high self-esteem. Stotland et al. (1957) found that individuals with high self-esteem rate themselves more favorably following failure than do those with low self-esteem.

Self-esteem or self-perceived task competence has been found to moderate the effect of feedback about performance on a task. Dossett, Latham, and Mitchell (1979) and Schrauger and Rosenberg (1970) found that feedback on a task resulted in improvement in performance for individuals with high self-esteem more than for those with low self-esteem. Individuals with high self-esteem set higher goals and were more successful in completing them than

those with low self-esteem. Locke et al. (1984) found that self-efficacy leads to more productive goal setting. In support of research linking self-efficacy to training, Ford and Noe (1987) recommend research into how self-efficacy could influence attitudes toward training.

In sum, it appears that self-perceived task competence is important for understanding an individual's reaction to feedback. An individual holds beliefs about whether he or she can perform a particular behavior. Whether the individual accepts feedback that is discrepant from that individual's expected performance on that behavior is dependent on the magnitude of the discrepancy of the performance and on whether the feedback is perceived as accurate. Feedback that is positive is more likely to be accepted than negative, since positive feedback is less threatening to an individual's self-perception. Feedback that actual performance differs from expected performance should result in a change in the individual's self-perceived task competence, to the extent that the feedback is perceived as accurate by the individual.

Self-Set Goals. The third mechanism underlying motivation is self-set goals. Goal levels are motivational in themselves to the extent that they are specific, moderately difficult, and accepted by the individual (Locke et al., 1984). As described by control systems, individuals may revise their goals after receiving feedback about their performance. Mento et al. (1980) found that personal goals were the best predictor of effort even with subjective goal difficulty and valence of goal partialled out.

Bandura and Cervone (1986) found that these three cognitive mechanisms (self-satisfaction, self-perceived task competence, and self-set

goals) affected change in motivation depending on the level and direction of the discrepancy between individuals' expected and their actual performance. In their study, false feedback was given to subjects so that four discrepancy conditions were created; large substandard, moderately substandard, small substandard, and small suprastandard. Self-perceived task competence contributed to motivation for future performance under all performance discrepancies. Self-satisfaction contributed to motivation most under conditions of a large or moderately large negative performance discrepancy. Self-set goals were motivational except when the performance discrepancy was negative and very large. This finding could be attributed to decrements in self-perceived task competence that may result from very negative feedback about performance. The most interesting finding was that within certain feedback conditions, expected performance on the next session varied widely, indicating that the mechanisms underlying motivation are even more complex than the researchers anticipated (Bandura and Cervone, 1986). For example, in the feedback condition in which subjects received information that they had met the standard, some individuals set higher goals, some lowered their goals, and some set the same goals. It seems that individuals vary in their belief about whether they could or would want to continue that same performance or whether they could or would want to reach a higher level of performance.

Ilgen et al. (1979) discuss individual characteristics which can moderate the perception of, acceptance of, and response to feedback. The research of Bandura and Cervone (1983,1986) also supports the importance of the individual's frame of reference when receiving feedback. Campion and Lord

(1982) suggested that future research examine individual difference measures in relation to goal change after success or failure. The research on locus of control as a possible moderator of the relationship between feedback discrepancy and the self-reactive mechanisms underlying motivation-to-learn is reviewed below.

Locus of Control

According to Lefcourt (1982), locus of control is a relatively stable personality variable. Individuals who tend to have internal locus of control (internals) believe that events that happen in their life are under their personal control while individuals who tend to have external locus of control (externals) believe that events in their life are controlled by outside forces. Research on locus of control has been focused on a variety of areas, including resistance to influence, cognitive ability, achievement-related behavior, and coping behavior (Lefcourt, 1982). Since researchers postulate that locus of control governs a person's attention and information acquisition processes, locus of control should have some effect on how individuals perceive, accept, and use feedback. Research in this area is presented below.

Feather (1963) found that internals accepted feedback more readily than externals. He also found that internals reacted more rationally to the feedback than externals; internals were more likely to lower their level of aspiration after failure and raise it after success than were externals. Phares (1976) found that internals were more likely to accept assessment of their skills, strengths, and weaknesses than externals. Internals are also more likely to take feedback

about strengths and weaknesses and act on it than are externals (Stone, Guetal, and McIntosh, 1984). Since internals see that events are under their control, they will be more likely to set long range goals for achievement and believe that effort will lead to performance. In fact, Broedling (1975) has shown that internals are more likely to perceive effort-performance and performance-outcome linkages.

Internals, because they are more aware of the influence they have on job outcomes and valued rewards, may be more likely to improve job skills and further their career. Several researchers have found that internals are more job involved than externals (Dailey and Morgan, 1978; Reitz and Jewell, 1979). Internals have been found to make more career plans and seek more career information following a career planning workshop than externals (Thornton, 1978). Internals have also been found to seek information about themselves even if they were aware it would have negative connotations (Seeman and Evans, 1962).

In sum, it appears that locus of control is an important variable for understanding an individual's reaction to feedback. Specifically, locus of control may affect whether an individual perceives feedback as accurate. It appears that individuals with internal locus of control will accept feedback about themselves more readily than will externals, even if the feedback is negative, and will use feedback for improvement of skills or performance.

Spector (1982) has reviewed the effects of locus of control on behavior in organizations and suggested that locus of control may be an important determinant of trainability. Internals should be more aware of how a particular

training program will help them improve in knowledge or skills necessary in their job than will externals. Internals may be more aware of the relationship between their effort and learning in training and also of the relationship of learning in training to valued rewards. If trainees are given feedback about their needs assessment, both internals and externals should become more aware of expectancies and instrumentalities associated with the training program. However, internals may be more accepting of that information than externals and use the information to set personal learning goals that may improve their performance in training.

As mentioned in the section on motivational control systems, Bandura and Cervone (1986) found that within different feedback conditions, the goals which individuals would set varied widely. While some individuals set higher goals, others would set lower goals or maintain the same goal. It may be that individual difference characteristics such as locus of control affect reaction to feedback and therefore, the goal setting process after feedback. A further examination of cognitive reactions to feedback as they are affected by locus of control may explain some of the variability in the goals of Bandura and Cervones' subjects. One focus of the study will be on the relationship between feedback discrepancy and the cognitive mechanisms of self-satisfaction, self-perceived task competence, and self-set goals, as they are moderated by locus of control.

6. SUMMARY

In sum, the effect of providing feedback from needs assessment on motivation-to-learn and on training posttest performance is a focus in the present study. The cognitive reactions underlying individuals' motivation-to-learn as a result of receiving needs assessment feedback are also a focus in the present study. The two areas of research are summarized below.

Individuals who will receive feedback from needs assessment are postulated to report higher initial motivation-to-learn than will individuals who will not receive feedback from needs assessment. Also, individuals who receive feedback from needs assessment are postulated to score higher on a posttest assessment than will individuals who do not receive feedback from needs assessment.

After feedback is received an individual compares expected performance with actual performance. Individuals who receive feedback that actual performance is lower than expected performance will rate their feedback as less accurate than will individuals who receive feedback that actual performance is higher than expected performance. The higher the actual level of performance, the higher will be the perceived accuracy of feedback. Individuals who tend to be internals will perceive feedback as more accurate than will individuals who tend to be externals.

Individuals who receive feedback that actual performance is much different than expected performance will change their self-perceived task competence more than will individuals who receive feedback that actual

performance was similar to expected performance. This relationship will hold true only if the feedback is perceived as accurate.

An individual's change in motivation-to-learn, prior to training, as a result of receiving needs assessment feedback is examined. Specifically, the cognitive mechanisms underlying motivation-to-learn are examined. Self-satisfaction, self-perceived task competence, and self-set goals contribute to motivation-to-learn after feedback, depending upon the discrepancy between an individual's expected performance and actual performance. Locus of control moderates the relationship of the individual's feedback discrepancy and the cognitive mechanisms underlying change in motivation-to-learn prior to training.

7. RESEARCH FOCUS

The focus in the present study is on two areas. First, the effect of providing feedback on motivation-to-learn prior to training and on training posttest performance is examined. Then, trainee reaction to needs assessment feedback in terms of perceived accuracy of feedback, self-satisfaction, self-perceived task competence, and self-set goals and subsequent motivation-to-learn is examined.

Given the ubiquity of training and development efforts in organizations, research that helps the training staff improve the effectiveness of the training process would be welcome. In fact, according to Ross (1974), the largest part of training costs is trainee salaries, and he suggested that more efficient training methods could save organizations a great deal of money. Hinrichs

(1976) suggested that future research in training should address trainee variables, including individual differences in ability and motivation.

This study is focused prior to training and the results may help the training staff understand the process of entering training from the participant's point of view, as recommended by Ford and Noe (1987). Hicks and Klimoski (1987) studied how certain variables such as degree of choice and amount of information about training impact motivation and learning in a training program. In the present study the process of entering training programs in terms of needs assessment feedback prior to training and the impact of that feedback on motivation-to-learn and learning of training material was examined. So far, research has not been focused on how motivation-to-learn can be impacted. The present study serves to extend previous research by a focus on impacting motivation-to-learn.

In research in the area of trainability, trainee motivation appears to be related to various measures of success in training, although most of the studies in this area have not measured actual performance. Few studies have been focused specifically on the relationship between motivation-to-learn and performance in training. Some studies have focused on reaction measures, some with self-reports of learning, and some with perceived ability. More research is needed to determine how trainee motivation can best be assessed and how motivation prior to training can be maximized (Wexley, 1984). Given the importance of trainee motivation prior to training, this study is focused on motivation-to-learn before training actually begins, instead of on variables in the training situation that affect motivation.

Feedback has been shown to consistently improve performance under conditions of goal setting. Providing feedback should also be able to improve an individual's motivation-to-learn before training begins, since feedback about strengths and weaknesses may help a trainee set personal goals for learning and may help to clarify effort-performance and performance-outcome expectancies about the training program. More research is needed on the effect of providing needs assessment feedback on motivation-to-learn and on learning in training. Research has been conducted on the effect of feedback on performance, but the focus has not been primarily on the training environment.

Gist (1987) reviewed the literature on self-efficacy (also known as self-perceived task competence) and discussed the implications of self-efficacy for organizational behavior and human resource management. Research has shown that self-efficacy predicts motivation and task performance in organizational settings. She suggests more research on self-efficacy and how it impacts reactions to feedback and how feedback affects subsequent performance.

Noe (1986) has hypothesized that reaction to needs assessment is an important determinant of trainability. However, in Noe and Schmitt's (1986) test of their model, reaction to needs assessment was not the main focus of the study and was not examined in detail. More research is needed to understand reaction to needs assessment and particularly on the mechanisms underlying individuals' reactions. Bandura and Cervone (1983) call for more research on how responses to feedback or its antecedents are influenced by such variables

as feedback consistency, favorability, general self-esteem, and their interactions. Organizations could use such information to design better training programs and also in other contexts, such as performance appraisal. This is addressed in this study by examining reaction to needs assessment in terms of how the participant rates the perceived accuracy of the feedback received and how the feedback impacts self-perceived task competence, self-satisfaction, and self-set goals. The present study serves to extend the research in this area by being focused on the training environment.

The effect of feedback on motivation is speculated to be complex. Bandura and Cervone (1986) found that self-satisfaction, self-perceived task competence, and self-set goals all contributed to motivation for future performance. Also, they found that within different feedback conditions, the goals which individuals set varied widely. Some of the subjects set higher goals, believing that better performance was possible and desirable, while others lowered their goals, believing that they would not be able to maintain the same performance or that the same performance was not desirable. Another group of subjects maintained the same goal. It may be that individual difference characteristics such as locus of control affect reaction to feedback and therefore, motivational processes after the receipt of feedback. A further examination of cognitive reactions to feedback as it is affected by locus of control may explain some of the variability in the goals of Bandura and Cervone's subjects. In the present study, the relationship between feedback discrepancy and the cognitive mechanisms underlying motivation (self-

satisfaction, self-perceived task competence, and self-set goals) was examined as moderated by locus of control.

Bandura and Cervone (1986) suggest that the research they have conducted on self-reactive mechanisms be extended from the laboratory to a field setting. This study serves to extend their research by its focus on the training setting. The setting in which feedback was given was real and no false feedback was given.

Noe and Schmitt suggested that their model be tested on other populations since their results may not be generalizable beyond school administrators. In the present study, reaction to needs assessment feedback, and subsequent motivation-to-learn will be examined in more detail, and also in a different population and setting.

The following section contains the hypotheses of the study. Chapter III contains a description of the methodology of the study.

8. HYPOTHESES

The major purpose in the study was to examine the effect of cognitive reactions to feedback on expressed motivation-to-learn prior to training and on training posttest performance. Individuals' cognitive reactions to needs assessment feedback in terms of perceived accuracy, self-set goals, self-perceived task competence, and self-satisfaction on change in motivation-to-learn was examined. The hypotheses of the study are presented below.

Motivation-to-learn and Posttest Performance

The results of several studies indicate that trainees, who reported before training a readiness to learn, were more successful in training (Ryman and Biersner, 1975; Deleo and Slaughter, 1978). Hicks (1984) and Moitra (1976) found that expectancies about training were predictive of learning in training. These trainees were probably more ready for learning than other trainees and saw more utility to the information presented in training. According to recent research, the effectiveness of training should be maximized if the training staff can prepare trainees for the learning situation (Sanders and Yanouzas, 1983).

Feedback provides information to individuals about how close their performance is to desired levels. In a variety of studies, feedback has been shown to improve performance when used in conjunction with goal setting (Locke et al. , 1981). Feedback has been used as a crucial component of training programs, in which feedback provides the trainee with information about how closely performance is to program goals and to increase the trainee's motivation for future effort.

Given the research presented above:

Hypothesis1a: Individuals who are given feedback from needs assessment prior to training will report more motivation-to-learn than will individuals who do not receive feedback prior to training.

Hypothesis 1b: Individuals who are given feedback from needs assessment prior to training will score higher on a posttest assessment than will individuals who do not receive feedback prior to training.

Hypotheses tested within Feedback Discrepancy Conditions

The following hypotheses were tested in feedback discrepancy conditions. Based on the variance of subjects' discrepancy between actual performance and expected performance, three feedback discrepancy conditions were used. The positive discrepancy conditions consists of all subjects who met or exceeded their performance expectations. The small negative discrepancy condition consists of subjects who fell just short of their performance expectations. Finally, the large negative discrepancy condition consists of all subjects who failed to meet their performance expectations by a larger amount.

Perceived Accuracy of Feedback

In their model of individual use of feedback, Ilgen et al. (1979) postulate that the perception, acceptance, and use of feedback is a function in part of the favorableness of the feedback. Positive feedback has been found to be more readily accepted than negative feedback. The feedback information about skills or knowledge given to the trainees will be perceived as favorable if it meets or exceeds their internal standard of performance. Because individuals engage in self-protective mechanisms, feedback that does not meet expectations may be perceived as less accurate than feedback that meets or exceeds an individual's expectations.

Locus of control is a relatively stable personality trait in which an individual feels personal control over life events (internal locus of control) or feels that life events are out of one's control (external locus of control). Locus of control has been shown to affect how individuals perceive, accept, and use

feedback. Feather (1968) found that internals accepted feedback more readily than externals and were more likely to react rationally to it. Phares (1976) found that internals accept assessment of their strengths and weaknesses more than externals and were more likely to act upon that information (Stone, Guetal, and McIntosh, 1984). Internals have been shown to be more job involved and to take more steps toward career planning than externals. Internals will probably be more aware of how a training program could impact their job. Internals may be more aware of the effort-performance and performance-outcomes expectancies than externals and will be more likely to use that information to further their career.

Based on the research presented above:

Hypothesis 2: Individuals who receive feedback that actual performance is lower than expected performance will rate their feedback as less accurate than will individuals who receive feedback that actual performance is higher than expected performance. The higher the actual level of performance, the higher will be the perceived accuracy of feedback. Perceived accuracy of feedback will vary depending on level of locus of control, with individuals who tend to be internals perceiving feedback as more accurate than will individuals who tend to be externals.

The effect of feedback on motivation for future performance is affected by the individual's reaction to the feedback. Bandura and Cervone (1986) found that motivation is affected by self-satisfaction, self-perceived task competence, and self-set goals. The focus in this study is on how reaction to feedback from

needs assessment affects motivation-to-learn in a training program. Specifically, the study is focused on the cognitive reactions underlying feedback within several feedback discrepancy conditions, both positive and negative. A negative discrepancy condition is one in which the participants receive feedback that actual performance level is lower than their expected performance level. A positive discrepancy condition is one in which the participants receive feedback that actual performance level is higher than their expected performance level.

Self-Satisfaction

Individuals compare their expected performance with their actual performance on a particular behavior and a discrepancy will result in either self-satisfaction or self-dissatisfaction, depending on whether the discrepancy is positive or negative. A positive discrepancy indicates that actual performance is higher than expected performance, and should result in a sense of self-satisfaction. A negative discrepancy indicates that actual performance is lower than expected performance, and should result in a sense of self-dissatisfaction.

Hypothesis 3a: For individuals whose actual performance is less than their expected performance, the more negative the difference between actual and expected performance, the more those individuals are dissatisfied with performance.

Hypothesis 3b: For individuals whose actual performance is less than their expected performance, the more dissatisfied those individuals are with estimated future performance, the more their motivation-to-learn increases.

Self-Perceived Task Competence

Self-perceived task competence refers to an individual's beliefs about his or her ability to perform a particular behavior. While self-esteem is a general feeling of competence, self-efficacy (or self-perceived task competence) refers to feelings of competence on a particular task. Lawler (1973) and Orpen and Nkohande (1977) postulate that self-esteem is related to a person's Type I expectancies that effort leads to performance. Self-esteem or self-efficacy has been found to moderate the effect of feedback about performance on a task. Dossett, Latham, and Mitchell (1979) and Schrauger and Rosenberg (1970) found that feedback improved performance for individuals with high self-esteem more than for those with low self-esteem. Sorenson and Franks (1972) found that persons with high self-esteem set higher goals and were more successful in completing them. Self-efficacy has been found to affect the goals that individuals set for themselves (Bandura and Cervone, 1983).

An individual may feel threatened by feedback that disagrees with his or her self-perception, and one way to avoid that threat is to think of the feedback as inaccurate. Feedback that is perceived as accurate will be more likely to cause the individual to change his or her self-perception of task competence.

Hypothesis 4a: Individuals who receive feedback that actual performance is much different than expected performance will change their self-perceived task competence more than will individuals who receive feedback that actual performance was similar to expected performance. This relationship will hold true only if the feedback is perceived as accurate.

Hypothesis 4b: The more an individual's self-perceived task competence increases, the more motivation-to-learn increases.

Self-Set Goals

Self-set goals for future performance have been shown in many studies to be predictive of effort toward the goal.

Hypothesis 5: The higher an individual's self-set goals after feedback, the more motivation-to-learn increases. This relationship will hold true for all individuals except those whose actual performance falls far short of expected performance.

In the Bandura and Cervone research, individuals in the various feedback discrepancy conditions reacted to feedback in different ways. In the present study this effect is examined in an exploratory analysis, as described below.

Hypothesis 6: Self-satisfaction, self-perceived task competence, and self-set goals contribute differentially to change in motivation-to-learn, depending on the relationship between actual performance and expected performance for each individual.

Locus of Control

In the Bandura and Cervone (1986) study, goals for future performance varied widely within feedback conditions. Because individuals with internal locus of control have been found to accept and react to feedback more than externals, to set higher goals and be more job involved than externals, and to rate themselves higher after failure than externals, the relationship between the individual's feedback discrepancy and the self-reactive influences underlying motivation-to-learn prior to training may be moderated by locus of control. In the present study, the relationship between locus of control and the cognitive mechanisms (self-perceived task competence, self-satisfaction, and self-set goals) was examined.

Hypothesis 7: The relationship between feedback discrepancy and cognitive reactions to feedback will be moderated by locus of control. Specifically, individuals who tend to be internals have higher self-perceived task competence, are more dissatisfied with discrepant performance, and set higher goals than individuals who tend to be externals, regardless of the magnitude of their feedback.

In Chapter III the methodology of the study is presented. In Chapter IV, the results of the study are presented, while in Chapter V the results are discussed.

CHAPTER III

METHODOLOGY

The data for this study were obtained in a large Southeastern utility from supervisors in a policies and procedures training program. Needs assessment consisted of a job knowledge test of organizational policies and procedures, with feedback of the test results to the participants prior to training.

In each week of training, the subjects were randomly assigned by class to a condition in which feedback was given (FEEDBACK) or to a condition in which feedback was not given (NO FEEDBACK). All subjects received a packet three weeks prior to training containing the job knowledge test, and measures of locus of control, motivation-to-learn, and initial self-perceived task competence. All measures except for the job knowledge tests were disguised as part of an evaluation of the training program. After the job knowledge test was scored by the researcher (approximately two weeks after initial measures were completed), it was returned to the participants in the FEEDBACK condition with specific feedback about their performance on the test. The subjects in the FEEDBACK condition were then asked to fill out measures of self-perceived task competence, perceived accuracy of feedback, motivation-to-learn, and self-satisfaction. The subjects in the NO FEEDBACK condition did not fill out the additional measures because the measures could not be disguised as part of the evaluation of the training program.

A pilot study was conducted using a group of 40 training participants to determine the adequacy of the measures used. Minor revisions were made to the measures. Since revisions were minor, the pilot study sample of 40 participants was also included in the sample in the study.

1. SAMPLE

The sample consisted of supervisors who attended a policies and procedures training program. There were 184 supervisors in the FEEDBACK condition and 139 in the NO FEEDBACK condition. The FEEDBACK condition was used to test the majority of the hypotheses of the study. The FEEDBACK group was 89% male and 11% female. The supervisors had an average tenure with the organization of 13.76 years ($SD = 7.20$), ranging from one to 35 years. The supervisors averaged 43.2 years of age ($SD = 7.6$), ranging from 25 to 64 years. The NO FEEDBACK group was 86% male and 14% female. The supervisors had an average tenure with the organization of 13.19 years ($SD = 7.85$), ranging from one to 38 years. The supervisors averaged 42.9 years of age ($SD = 8.09$), ranging from 27 to 62 years.

In previous research on motivation-to-learn, effect sizes have ranged from .01 to .25. A medium effect size was chosen in the power analysis for this study. In Appendix A the power analysis results are presented. The analysis was performed and a sample size of 150 in the FEEDBACK condition was determined to be adequate to achieve a power of .80 in this study (Cohen, 1977). To test for differences between the two conditions, a sample size of 100 was used in the NO FEEDBACK condition.

In the FEEDBACK condition a total of 225 packets were mailed and 198 were returned. Of that total, 14 of the packets were not usable. This resulted in a response rate of 88%. Of the previous group, 184 posttests were mailed and a total of 111 posttests were returned. This resulted in a response rate of 60%.

In the NO FEEDBACK condition a total of 230 packets were mailed and 149 were returned. Of that total, 10 of the packets were not usable. This resulted in a response rate of 64%. Of the previous group, 139 posttests were mailed and a total of 71 posttests were returned. This resulted in a response rate of 51%.

2. PROCEDURE

Description of Training

The training was designed to provide the supervisor with information on organizational policies and procedures and to encourage consistent application of policies and procedures across the organization. The objectives of training, which were provided to the participants, were to familiarize supervisors with organizational policies and procedures, and to provide a forum for answering questions about those policies and procedures. A needs analysis was conducted before the program was designed. The job analysis of the supervisory position was examined to determine what knowledge of policies and procedures were needed on the job. Content experts verified the information. An examination of reaction measures from previous courses indicated that the participants were satisfied with the

program. The training was rated as understandable, related to real-life situations, well-structured, and relevant.

Approximately 35-55 supervisors attended the training program each week in a top-down approach, that is, the supervisors at higher levels attended the program before subordinates. The participants work in various departments across the organization. For each training session, departments had a certain number of slots (the number determined by the magnitude of their supervisory population) for supervisors to attend.

The training was three and one-half days long and was segmented into major topics for presentation. For each major topic, the participants listened to a presentation by a content expert and then broke into small groups to participate in an exercise designed to foster knowledge acquisition. After the exercise was over, the groups reconvened in a large group for a question and answer session with the content expert. The major topics presented in training were selection, managing individual performance, health and safety, EEO/Affirmative Action, and appeals and grievances.

Research Procedure for the Present Study

FEEDBACK Group Approximately three weeks before training, the participants were mailed a knowledge test on policies and procedures and measures of self-perceived task competence, locus of control, and motivation-to-learn. The measures were attached to a formal memorandum describing the purpose of the packet (see cover letter in Appendix B). It was explained to the FEEDBACK group that the purpose of the packet was feedback to them about knowledge of policies and procedures, and evaluation of the training

program. Confidentiality of the results was assured. The participants completed the packet and mailed it back to the researcher. The researcher scored the job knowledge test and returned it within one working day to the participant with specific feedback about their performance. The feedback provided the answers to questions they missed, and included references for further information on the subject. The participant then completed the self-perceived task competence and the motivation-to-learn measures, which were included with the feedback. A followup memorandum was sent to participants who did not return the packet, reaffirming the usefulness of the job knowledge test to them and the importance of the evaluation study for improving the effectiveness of training.

NO FEEDBACK Group Approximately three weeks before training, the participants were mailed a knowledge test on policies and procedures and measures of self-perceived task competence, locus of control, and motivation-to-learn. The measures were attached to a formal memorandum describing the purpose of the packet (See cover letter in Appendix C). The NO FEEDBACK group was told that the purpose of the packet was evaluation of the training program. Confidentiality of the results was assured. The participants completed the packet and mailed it back to the researcher. The NO FEEDBACK group completed only the first set of measures. A followup memorandum was sent to participants who did not return the packet, reaffirming the importance of the evaluation study for improving the effectiveness of training.

3. MEASURES

The following sections describe the measures that were used in the study. A group of supervisors who had not yet attended the training piloted the questionnaires used in the study to determine if the items and instructions were understandable.

Job Knowledge Tests

The needs assessment method was a job knowledge test of organizational policies and procedures (see Appendix E). The 64 item test was developed based on the policies and procedures subject matter experts identified as important from a supervisory handbook that is the basic reference for the course. After the subject matter experts identified the important areas, test items were developed from each area. The items were reviewed by the content expert and revised if necessary. The items were piloted on trainees in previous training sessions and were found to discriminate well between good and poor performers on the test.

The participants in the FEEDBACK group received specific feedback on the questions of the test. The feedback contained a description of the segment of the training manual which covered the items missed (see Appendix F). Participants were rated on the percentage of items correct on the test (see Appendix G). The scores on this test were used to determine the individual's discrepancy between actual performance and expected performance.

In addition, a posttest assessment was developed using items from the same item pool as the pretest skills assessment (see Appendix I). This test

consisted of 63 items. However, 26 of the items of the posttest were duplicates of items on the pretest. These items were deleted from the calculation of the participants' posttest score to avoid any inflation of the score because the participants had seen the items before. In Appendix I the items that were duplicates of pretest items are marked with a check.

The pretest and posttest assessment were developed using items from the same item pool and were matched according to their content, difficulty level, and discriminability level. To determine if the tests were comparable the coefficient alpha reliability of the tests were compared with and without the deleted items. The reliability of the pretest was .82, the posttest with all items had a reliability of .85, while the posttest with only 37 items had a reliability of .82.

Expected Performance

The participant was asked to estimate the number of items that he or she answered correctly on the job knowledge test (see Appendix E, last page). This estimate was used along with the participant's actual performance to determine the discrepancy between actual and expected performance.

Initial Self-Perceived Task Competence

This measure was filled out by the participant before he or she completed the job knowledge test. Items included "I am knowledgeable of XYZ policies and procedures" and "I could give accurate information to another person who asked me about XYZ policies and procedures" (see

Appendix D). The participants responded to these questions on a six point scale ranging from strongly agree (six) to strongly disagree (one). The responses to the two items were added together to determine the participant's score on initial self-perceived task competence, resulting in a possible range of two (lower self-perceived task competence) to twelve (higher self-perceived task competence).

Post-Feedback Self-Perceived Task Competence

This measure addressed self-perceived task competence and was administered after feedback was given to the participant. Items included "I am knowledgeable of XYZ policies and procedures" and "I could give accurate information to another person who asked me about specific XYZ policies and procedures" (see Appendix H). The participants responded to these questions on a six point scale ranging from strongly agree (six) to strongly disagree (one). The responses to the two items were added together to determine the participant's score on post-feedback self-perceived task competence, resulting in a possible range of two (lower self-perceived task competence) to twelve (higher self-perceived task competence).

This score and the score on initial self-perceived task competence were used to determine the participant's change in self-perceived task competence. Since the items were identical at both measurement times, the score on initial self-perceived task competence was subtracted from post-feedback self-perceived task competence. A positive discrepancy indicated that the participant's self-perceived task competence increased, while a negative

discrepancy indicated that self-perceived task competence decreased after feedback.

Perceived Feedback Accuracy

Perceived feedback accuracy was to be assessed with two items, "I believe my performance on the job knowledge test was an accurate indicator of my knowledge in this area", and "The job knowledge test covered the important areas in XYZ policies and procedures" (see Appendix H). However, the results of the pilot study showed that these two items were not highly intercorrelated. Based on these results, the item, "The job knowledge test covered the important areas in XYZ policies and procedures" was dropped from the study. The other item more directly measured perceived accuracy of feedback.

The perceived accuracy item had a six point response format ranging from strongly agree (six) to strongly disagree (one). Higher scores indicated a greater degree of perceived accuracy.

Locus of Control

Locus of control was measured using the Sphere-Specific measure of perceived control (Paulhus, 1983; Paulhus and Christie, 1981). The locus of control items are presented in Figure III - 1. The full scale uses three subscales: personal efficacy, interpersonal control, and sociopolitical control. In previous studies, the reliability (coefficient Alpha) of the subscales on cross-validations samples have ranged from .75 to .80. According to Paulhus, test-retest correlations at 4 weeks are above .90 and at six months are above .70

LOCUS OF CONTROL ITEMS
PERSONAL EFFICACY SUBSCALE
(Paulhus, 1983)

1. I can learn almost anything if I set my mind to it.
2. When I get what I want it's usually because I worked hard for it.
3. When I make plans I am almost certain to make them work.
4. I prefer games involving some luck over games requiring pure skill.
5. I usually don't set goals because I have a hard time following through on them.
6. Competition discourages excellence.
7. My major accomplishments are entirely due to my hard work and ability.
8. On any sort of exam or competition I like to know how well I do relative to everyone else.
9. Often people get ahead just by being lucky.
10. It's pointless to keep working on something that's too difficult for me.

SCALE:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neutral
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

FIGURE III -1. ITEMS IN THE LOCUS OF CONTROL MEASURE

for all three subscales. The Paulhus scale has the advantage over Rotter's of partitioning locus of control into the three spheres. The Paulhus scale has been shown to have low correlations with social desirability, with the personal efficacy scale having the lowest correlation with social desirability (.19). In this study, the personal efficacy subscale was the scale of interest. Because of organizational constraints, the interpersonal control and sociopolitical scales could not be included on the questionnaire. The participants responded to the items on a 7-point scale ranging from Strongly Disagree (one) to Strongly Agree (seven). Five items were negatively worded and were reverse-scored. The responses to the ten items were then added together to determine the participant's score on locus of control, resulting in a possible range of ten to seventy. Higher scores indicated a greater degree of internal locus of control.

Locus of control was treated as a continuous variable. For the remainder of this paper, individuals who have higher scores on the locus of control measure will be referred to as 'tending to be internal', while individuals who have lower scores will be referred to as 'tending to be external'.

Self-Satisfaction with Present Performance

This measure assessed self-satisfaction with present performance. Based on Bandura and Cervones' (1986) research, this was assessed with one item, "Please rate your satisfaction with your performance on the policies and procedures test" (see Appendix H). The scale for the item was seven points, ranging from highly self-satisfied (seven) through neutral (four) to

highly self-dissatisfied (one). Self-satisfaction with present performance was treated as a continuous variable.

Self-Satisfaction with Future Performance

This measure assessed self-satisfaction with future performance. Based on Bandura and Cervones' (1986) research, this was assessed with one item, "How satisfied would you be if you received the same score on the posttest you complete after Orientation to Supervision that you did on the policies and procedures test you completed two weeks ago?" (see Appendix H). The scale for the item was seven points, ranging from highly self-satisfied (seven) through neutral (four) to highly self-dissatisfied (one). Self-satisfaction with future performance was treated as a continuous variable.

Self-Set Goal

This measure assessed the self-set goal for the posttest measure of job knowledge. Participants were asked, "Please estimate the number of items you will answer correctly on the posttest assessment you will complete after training" (see Appendix H). This item was converted to a percentage using 63 as a base to make the scale comparable with the other measures of job knowledge.

Motivation-To-Learn

Motivation-to-learn was measured with items that have been used in previous studies (Hicks, 1984). However, the items were tailored for the present study by specifically addressing the Orientation to Supervision

1. The knowledge that I gain in this training program will help me better perform my job.
2. I will try to learn as much as I can in Orientation to Supervision.
3. I am motivated to learn the material presented in Orientation to Supervision.
4. I will learn more of the material in Orientation to Supervision than other supervisors who attend the training program.
5. I am sure that I can gain valuable knowledge by attending Orientation to Supervision.
6. The knowledge that I gain in this training program will help improve the relationship between myself and my subordinates.
7. The knowledge that I gain in this training program may help further my career.
8. Orientation to Supervision will help me set standards for my performance as a supervisor.
9. Even if I don't learn as much as I'd like in Orientation to Supervision, this training will be a valuable experience.
10. If I have trouble understanding the material presented in Orientation to Supervision, I will try harder.

SCALE:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Slightly Agree
- 5 = Agree
- 6 = Strongly Agree

Figure III - 2. ITEMS IN THE MOTIVATION-TO-LEARN MEASURE

training program. The items on this measure are presented in Figure III - 2. Participants responded to the items on a six point scale ranging from strongly agree (six) to strongly disagree (one). The responses to the ten items were then added together to determine the participant's score on motivation-to-learn, resulting in a possible range of ten to seventy. Higher scores indicated a greater degree of motivation-to-learn. Motivation-to-learn was treated as a continuous variable.

Summary of Measures

In Table III - 1 is presented a summary of the measures that were administered in each of the two conditions. In Figure III - 3 the time of measurement of each of the variables is summarized.

4. DATA ANALYSIS

The means, standard deviations, intercorrelations, and range of the variables used in the present study were computed. To test the reliability of the measures used in the study, internal consistency estimates (coefficient alpha) were computed. Regression, correlation, t-test, and analysis of covariance were used to analyze the appropriate data of the study. The SAS System (1986), was used to perform all of the analyses. SAS deletes missing observations from the analyses.

TABLE III - 1. SUMMARY OF MEASURES ADMINISTERED IN EACH OF THE FEEDBACK CONDITIONS IN THE STUDY

Measures	Feedback Condition	No Feedback Condition
1. Pretest Performance	Yes	Yes
2. Posttest Performance	Yes	Yes
3. Expected Performance	Yes	Yes
4. Initial Self-Perceived		
Task Competence	Yes	Yes
5. Post-Feedback Self-Perceived		
Task Competence	Yes	No
6. Locus of Control	Yes	Yes
7. Perceived Accuracy of Feedback	Yes	No
8. Self-Satisfaction with Performance	Yes	No
9. Self-Set Goal	Yes	No
10. Motivation-To-Learn (Pre Feedback)	Yes	Yes
11. Motivation-To-Learn (Post Feedback)	Yes	No

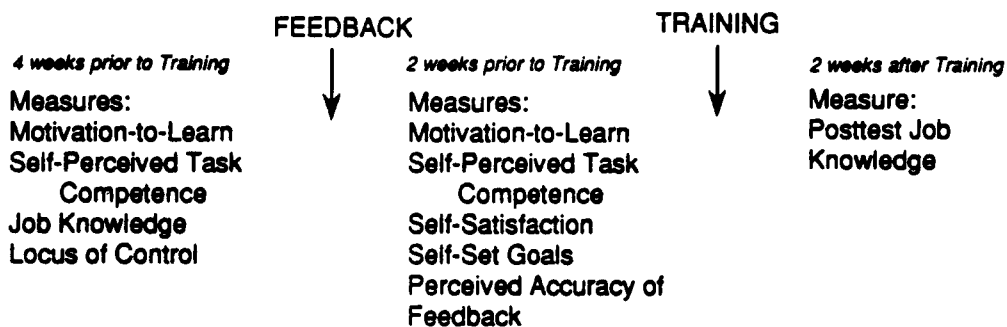
FEEDBACK GROUP**NO FEEDBACK GROUP**

FIGURE III - 1. TIME OF MEASUREMENT OF THE VARIABLES OF THE STUDY.

CHAPTER IV

RESULTS

In this chapter the descriptive statistics and psychometric properties of the measures are presented, followed by the tests of the hypotheses of the study.

1. DESCRIPTIVE STATISTICS AND PSYCHOMETRIC PROPERTIES OF THE MEASURES

The means, standard deviations, and internal consistency measures (coefficient alpha) are presented in Table IV-1. In addition, intercorrelations of the variables in the study are presented in Table IV-2.

2. DEMOGRAPHICS

The FEEDBACK and NO FEEDBACK groups were compared on the demographic variables of gender, race, age, organization tenure, and pay level. T-test and chi square analyses between the two groups were conducted on these variables. No significant differences were found, indicating that the two groups were probably comparable. In Table IV-3 these results are presented, along with the means of the variables.

TABLE IV-1. DESCRIPTIVE STATISTICS AND COEFFICIENT ALPHA RELIABILITY ESTIMATES FOR MEASURES IN THE STUDY.

Variable	# of Items	N	M	SD	Range	α
Motivation-to-learn Pre-feedback (1 = low, 6 = high)	10	255	48.73	5.20	30-60	.88
Motivation-to-learn Post-feedback (1 = low, 6 = high)	10	184	48.23	5.95	25-59	.89
Self-perceived task competence Pre-feedback (2 = low, 12 = high)	2	255	8.09	1.82	2-12	.93
Self-perceived task competence Post-feedback (2 = low, 12 = high)	2	184	7.72	1.74	2-12	.90
Self-set goal (0 = low, 100 = high)	1	166	93.09	7.71	50-100	—
Self-satisfaction (Present perf.) (1 = low, 7 = high)	1	171	4.04	1.57	1-7	—
Self-satisfaction (Future perf.) (1 = low, 7 = high)	1	173	1.79	1.14	1-6	—
Perceived accuracy of feedback (1 = low, 6 = high)	1	184	4.57	0.74	2-6	—
Locus of control (low = external, high = internal)	10	255	56.26	4.47	38- 69	.73
Job Knowledge Pretest (0 = low, 100 = high)	64	255	71.71	9.31	41-100	.84
Job Knowledge Posttest (0 = low, 100 = high)	37	182	73.99	13.37	34-100	.82
Expected Performance (0 = low, 100 = high)	1	170	76.48	15.19	31-100	—

TABLE IV-2. ZERO-ORDER CORRELATIONS AMONG MEASURES IN THE STUDY

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Motivation-to-learn Pre-feedback	-	.79*	.00	.10	.10	-.08	-.20**	.41**	.00	.00	-.03	.17**
2. Motivation-to-learn Post-feedback		-	-.09	.00	.16*	-.13	-.25**	.33**	-.04	-.04	.00	.20**
3. Self-perceived task competence Pre-feedback			-	.60**	.06	-.16*	-.01	.04	.03	.34**	-.14	-.06
4. Self-perceived task competence Post-feedback				-	.14	.02	.01	.19**	.25**	.24**	.03	-.07
5. Self-set goal					-	-.04	-.19**	.20**	.31**	.25**	.26**	.12
6. Self-satisfaction Present performance						-	.29**	-.05	.30**	-.25**	.05	.17*
7. Self-satisfaction Future performance							-	-.11	.23**	-.01	.00	-.06
8. Locus of control								-	.14*	.14*	.04	.16*
9. Actual pretest performance									-	.25**	.21*	-.05
10. Expected pretest performance										-	-.14	-.13
11. Actual posttest performance											-	-.08
12. Perceived Accuracy of Feedback												-

* $p < .05$. ** $p < .01$.

Table IV-3. BIOGRAPHICAL DATA ON SUBJECTS.

Background Variable	FB Group			No FB Group			t-test	X
	Mean	Percentage	N	Mean	Percentage	N		
Age	43.23	--	184	42.99	--	139	-0.23	--
Organizational Tenure	13.84	--	184	13.19	--	139	-0.66	--
Pay	44838.00	--	184	44015.00	--	139	-0.66	--
Sex	--	Male = 89%	184	--	Male = 85%	139	--	0.62
Race	--	White = 94%	184	--	White = 94%	139	--	3.60
		Black = 5%			Black = 4%			
		Other = 1%			Other = 1%			

* $p < .05$ ** $p < .01$

3. TESTS OF HYPOTHESES

Hypothesis 1a

It was predicted that individuals who are given feedback from needs assessment prior to training will report higher motivation-to-learn than will individuals who do not receive feedback from needs assessment prior to training. A t-test revealed significant differences ($t = -2.53$, $df = 165$, $p < .01$) between average initial motivation-to-learn for the FEEDBACK group and the NO FEEDBACK group. The initial motivation-to-learn measures were compared in the t-test because no second measure of motivation-to-learn was available for the NO FEEDBACK group. The average motivation-to-learn for the FEEDBACK group ($M = 49.1$) was higher than that of the NO FEEDBACK group ($M = 47.5$). Therefore, hypothesis 1a was supported. Results are shown in Table IV - 4.

TABLE IV - 4. T-TEST BETWEEN REPORTED MOTIVATION-TO-LEARN FOR FEEDBACK AND NO FEEDBACK GROUPS

MEAN FB GROUP	MEAN NO FB GROUP	df	T
49.19	47.56	165	-2.53**

* $p < .05$

** $p < .01$

In further analyses it was shown that the average motivation-to-learn level for the FEEDBACK group was not significantly different when measured after feedback was given (Paired $t = 1.60$, n.s.). This was true regardless of the discrepancy between the actual level of performance and the expected level of performance. Motivation-to-learn was not measured a second time in the NO FEEDBACK group because of organizational constraints.

Hypothesis 1b

It was predicted that individuals who are given feedback from needs assessment prior to training will score higher on a posttest assessment than will individuals who do not receive feedback prior to training. The results of a t-test revealed significant differences ($t = -2.90$, $df = 146$, $p < .004$) between the posttest scores for the FEEDBACK group and the NO FEEDBACK group. The mean posttest score for the FEEDBACK group ($M = 76.26$) was higher than the mean posttest score for the NO FEEDBACK group ($M = 70.40$). Thus, hypothesis 1b was supported. Results are shown in Table IV - 5.

TABLE IV - 5. T-TEST BETWEEN POSTTEST ASSESSMENT SCORES FOR FEEDBACK AND NO FEEDBACK GROUPS

MEAN FB GROUP	MEAN NO FB GROUP	df	T
76.26	70.44	146	2.90**

* $p < .05$

** $p < .01$

The mean pretest scores for the two groups were significantly different ($t = -2.77$, $df = 121$, $p < .006$). The mean pretest score for the FEEDBACK group ($M = 72.7$) was higher than the mean pretest score for the NO FEEDBACK group ($M = 69$). To examine the differences for the two groups between posttest scores controlled for the effect of pretest scores, an analysis of covariance was performed. In the analysis of covariance procedure, the variance in the posttest which could be explained by the pretest was first partialled out, then the variance in the posttest explained by the main effect of feedback in the adjusted posttest means was examined. The analysis was significant. Therefore, posttest scores were significantly different for the two groups when controlling for pretest scores. Results are shown in Table IV - 6.

TABLE IV - 6. ANALYSIS OF COVARIANCE FOR POSTTEST ASSESSMENT SCORES ON PRETEST ASSESSMENT SCORES AND FEEDBACK

Variable	Model R ²	ΔR^2	F ΔR^2	M	Adjusted M
Pretest	.0542	.0542	12.06**		
Between Groups	.0772	.0230	7.49**		
Feedback Group				76.06	75.77
No Feedback Group				70.44	71.19

* $p < .05$
 ** $p < .01$

To determine if there was a direct effect of motivation-to-learn on training performance, further analyses were performed. Analysis of covariance was performed to examine the effect of motivation-to-learn on posttest scores controlled for the effect of pretest scores. In the analysis of covariance procedure, the variance in the posttest which could be explained by the pretest was first partialled out, then the variance in the posttest explained by motivation-to-learn in the adjusted posttest means was examined. Motivation-to-learn did not predict variance in posttest performance beyond that accounted for by pretest performance. Results are shown in Table IV - 7.

TABLE IV - 7. ANALYSIS OF COVARIANCE FOR POSTTEST ASSESSMENT SCORES ON MOTIVATION-TO-LEARN AND PRETEST ASSESSMENT SCORES

Variable	Model R ²	ΔR^2	F ΔR^2	M	Adjusted M
Pretest	.0542	.0542	12.06**		
Motivation-to-learn	.0633	.0091	.71		
Feedback Group				76.06	76.28
No Feedback Group				70.44	70.40

* $p < .05$
 ** $p < .01$

Exploratory analyses were performed to determine the best predictors of posttest performance. The major variables of the study were entered into a maximum improvement regression equation. The best predictor of posttest

performance was pretest performance. When the effect of pretest performance was partialled out of posttest performance, post feedback self-perceived task competence was the best predictor of posttest performance. No other variables accounted for a significant amount of variance in posttest performance. Results are shown in Table IV - 8.

TABLE IV - 8. REGRESSION OF POSTTEST PERFORMANCE ON PRETEST PERFORMANCE AND INITIAL SELF-PERCEIVED TASK COMPETENCE

Variable	Model R ²	Change in R ²	F Change in R ²
Pretest performance	.0672	.0672	6.49**
Self-Perceived Task Competence	.1111	.0439	4.39*

* $p < .05$

** $p < .01$

Hypotheses tested within feedback discrepancy conditions

The following hypotheses were tested in the FEEDBACK condition only, since the individuals in the NO FEEDBACK condition did not receive feedback or complete the measures of these variables.

Hypothesis 2

It was predicted that individuals who receive feedback that actual performance is lower than expected performance will rate their feedback as less accurate than will individuals who receive feedback that actual performance is higher than expected performance, that the higher the actual

level of performance, the higher will be the perceived accuracy of feedback, and it was also predicted that individuals who tend to be internals will perceive feedback as more accurate than will individuals who tend to be externals.

The hypothesis was tested in an overall regression equation of perceived accuracy of feedback on the discrepancy between actual and expected performance and actual level of performance, with locus of control entered as a moderator. The overall regression analysis of perceived accuracy of feedback on the discrepancy between actual and expected performance and actual level of performance was not significant. Actual level of performance added significant variance however, indicating that the variables in the equation may have been redundant, resulting in true variance being washed out. The hypotheses were not supported. The results are shown in Table IV - 9.

TABLE IV - 9. REGRESSION ANALYSES OF PERCEIVED ACCURACY OF FEEDBACK ON THE DISCREPANCY BETWEEN ACTUAL AND EXPECTED PERFORMANCE, LOCUS OF CONTROL, AND CORRESPONDING INTERACTION TERMS

Variable	Beta	R ²	F R ²	Δ R ²	F Δ R ²
<u>DV: Perceived Accuracy of Feedback</u>					
Discrepancy	.0477	.0053	.90	-	-
Actual	-.0496	.0222	1.90	.0169	3.78*
Locus of Control	-.0279	.0402	2.32	.0180	3.10
Discrepancy/LOC Interaction Term	-.0007	.0456	1.97	.0054	.94
Actual/LOC Interaction Term	.0006	.0468	1.61	.0012	.21

*p < .05, **p < .01

The hypotheses were examined within the positive and negative feedback discrepancy conditions to determine if the sign of the feedback impacted perceived accuracy. In the positive feedback condition, the regression of perceived accuracy on the discrepancy between actual performance and expected performance was not significant. In the negative discrepancy conditions, the regression equation was significant. In Table IV - 10 these results are presented.

The means and standard deviations for perceived accuracy of feedback within each discrepancy condition are presented in Table IV - 11. The highest average perceived accuracy was in the small negative discrepancy condition ($M = 4.77$). Perceived accuracy of feedback had a high mean and low variance overall ($M = 4.57$, $SD = .74$) so the chance of detecting the hypothesized effect may have been low.

Although locus of control did not moderate the relationship, an examination of the zero order correlations revealed that across all feedback discrepancy conditions, people who tend to be internals perceived feedback as more accurate than did those who tend to be externals ($r = .17$, $p < .02$).

It was thought that it would be interesting to explore the relationship of satisfaction with present performance and perceived accuracy of feedback. In further exploratory analyses, the relationship between satisfaction with present performance, discrepancy between actual and expected performance, actual performance, and perceived accuracy of feedback was examined in a regression equation.

TABLE IV - 10. REGRESSION ANALYSES OF PERCEIVED ACCURACY OF FEEDBACK ON THE DISCREPANCY BETWEEN ACTUAL AND EXPECTED PERFORMANCE, LOCUS OF CONTROL, AND THE CORRESPONDING INTERACTION TERMS WITHIN DISCREPANCY CONDITIONS

Variable	Beta	R ²	F R ²	ΔR ²	F Δ R ²
POSITIVE DISCREPANCIES					
<u>DV: Perceived Accuracy of Feedback</u>					
Discrepancy	-.0111	.0288	1.93	-	-
Actual	-.0112	.0489	1.65	.0201	1.35
Locus of Control	.0084	.0521	1.16	.0032	.22
Discrepancy Locus of Control Interaction Term	.0188	.0547	.90	.0026	.17
Actual Locus of Control Interaction Term	-.0013	.0581	.75	.0034	.22
NEGATIVE DISCREPANCIES					
<u>DV: Perceived Accuracy of Feedback</u>					
Discrepancy	.0167	.0441	4.66*	-	-
Actual	-.0237	.1077	6.04**	.0636	7.14**
Locus of Control	.0376	.1549	6.05**	.0472	5.53*
Discrepancy Locus of Control Interaction Term	-.0016	.1643	4.82**	.0094	1.10
Actual Locus of Control Interaction Term	.0020	.1723	4.04*	.0080	.94

a Beta refers to the standardized regression coefficient

* $p < .05$, ** $p < .01$

TABLE IV - 11. MEAN AND STANDARD DEVIATION FOR PERCEIVED ACCURACY OF FEEDBACK WITHIN FEEDBACK DISCREPANCY CONDITIONS

OVERALL		POSITIVE		SMALL NEG		LARGE NEG	
MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
4.57	.74	4.62	.67	4.77	.66	4.37	.82

Results show that satisfaction with present performance and actual performance were significantly related to perceived accuracy of feedback. Locus of control did not moderate the relationship. Results are shown in Table IV - 12.

Hypothesis 3a

It was predicted that for individuals whose actual performance is less than their expected performance, the more actual performance differs from expected performance, the more dissatisfied those individuals are with performance. A positive correlation ($r = 0.37$, $p < .003$) was found between discrepancy between actual performance and expected performance and self-satisfaction with performance. Therefore, the more negative the difference between actual performance and expected performance, the more dissatisfied individuals were with performance. Thus, hypothesis 3a was supported.

Hypothesis 3b

It was predicted that for individuals whose actual performance is less than expected performance, the more dissatisfied those individuals are with estimated future performance, the more their motivation-to-learn increases.

TABLE IV - 12. REGRESSION ANALYSES OF PERCEIVED ACCURACY OF FEEDBACK ON SATISFACTION WITH PERFORMANCE, THE DISCREPANCY BETWEEN ACTUAL AND EXPECTED PERFORMANCE, LOCUS OF CONTROL, AND THE CORRESPONDING INTERACTION TERMS.

Variable	Beta	R ²	F R ²	Δ R ²	F Δ R ²
<u>DV: Perceived Accuracy of Feedback</u>					
Satisfaction	.0918	.0240	3.84*	-	-
Discrepancy	.0415	.0242	1.92	.0002	.03
Actual	-.0616	.0503	2.72*	.0261	4.24*
Locus of Control	-.0311	.0789	3.28*	.0286	4.75*
Discrepancy Locus of Control Interaction Term	-.0006	.0834	2.77*	.0045	.75
Actual Locus of Control Interaction Term	.0008	.0852	2.34*	.0018	.29

a Beta refers to the standardized regression coefficient

* $p < .05$, ** $p < .01$

Since change scores can be unreliable (see discussion of change scores in Cronbach and Furby, 1970), motivation-to-learn post feedback was the focus of the analysis. Satisfaction with estimated future performance was regressed on motivation-to-learn post-feedback after the effect of motivation-to-learn pre-feedback was partialled out. Satisfaction with estimated future performance was not related to motivation-to-learn post-feedback after the effect of motivation-to-learn pre-feedback was partialled out. Thus hypothesis 3b was not supported. Results are shown in Table IV - 13.

TABLE IV - 13. REGRESSION OF MOTIVATION-TO-LEARN POST FEEDBACK ON MOTIVATION-TO-LEARN PRE FEEDBACK AND SELF-SATISFACTION WITH PERFORMANCE

Variable	Model R ²	Change in R ²	F Change in R ²
Motivation-to-learn	.6070	.6070	245.55**
Self-satisfaction	.6145	.0075	3.10

* $p < .05$

** $p < .01$

Hypothesis 4a

It was predicted that individuals who receive feedback that actual performance is much different than expected performance will change their self-perceived task competence more than will individuals who receive feedback that actual performance is similar to expected performance. It was postulated that this relationship will hold true only if the feedback is perceived as accurate. The results of regression analyses indicated that the discrepancy

between expected and actual performance was significantly related to self-perceived task competence after feedback with the effect of self-perceived task competence pre feedback was partialled out. However, perceived accuracy did not moderate the equation. In Table IV - 14 the results of these analyses are presented. Therefore, hypothesis 4a was partially supported.

Hypothesis 4b

It was postulated that the more an individual's self-perceived task competence increases after feedback, the more motivation-to-learn increases. Since both variables are change scores and therefore may be subject to unreliability, to compare change in self-perceived task competence with change in motivation-to-learn, residualized change scores were computed and then correlated with one another. Results were not significant. Thus, Hypothesis 4b was not supported.

In further exploratory analyses, self-perceived task competence after feedback was related to the variable change in motivation-to-learn ($r = -.13$, $p < .05$). Therefore, the lower a participant's self-perceived task competence after feedback, the more positive the change in motivation-to-learn after feedback. Also, the higher a participant's self-perceived task competence, the more negative the change in motivation-to-learn after feedback.

TABLE IV - 14. REGRESSION OF SELF PERCEIVED TASK COMPETENCE POST FEEDBACK ON SELF-PERCEIVED TASK COMPETENCE PRE FEEDBACK, DISCREPANCY BETWEEN ACTUAL PERFORMANCE AND EXPECTED PERFORMANCE AND PERCEIVED ACCURACY OF FEEDBACK.

Variable	Model R ²	Change in R ²	F Change in R ²
Self-perceived task competence	.3681	-	-
Discrepancy	.3816	.0135	3.63*
Perceived Accuracy of Feedback	.3851	.0035	.96
Discrepancy Perceived Accuracy Interaction Term	.3929	.0078	2.11

* $p < .05$ ** $p < .01$

Hypothesis 5

It was predicted that the higher an individual's self-set goals after feedback the more motivation-to-learn increases. This relationship will hold true for all individuals except those whose actual performance falls far short of expected performance. Self-set goal was not related to change in motivation-to-learn ($r = .09$, n.s.). Self-set goal was not related to motivation-to-learn post feedback after motivation-to-learn pre-feedback was partialled out. The relationship between self-set goal and motivation-to-learn in the large negative discrepancy condition was not significant. Thus, hypothesis 5 was not supported. Results are shown in Table IV - 15.

TABLE IV - 15. REGRESSION OF MOTIVATION-TO-LEARN POST FEEDBACK ON MOTIVATION-TO-LEARN PRE FEEDBACK AND SELF-SET GOALS, WITHIN FEEDBACK DISCREPANCY CONDITIONS.

Variable	Model R ²	Change in R ²	F Change in R ²
LARGE NEGATIVE DISCREPANCY CONDITION			
Motivation-to-learn Pre Feedback	.6718**	-	-
Self-set goals	.6880	.0162	2.96
ALL BUT LARGE NEGATIVE DISCREPANCY CONDITION			
Motivation-to-learn Pre Feedback	.5694**	-	-
Self-set goals	.5716	.0022	.52

* $p < .05$
 ** $p < .01$

Hypothesis 6

It was predicted that self-satisfaction, self-perceived task competence, and self-set goals contribute differentially to motivation-to-learn, depending on the relationship between actual performance and expected performance for each individual. Based on the methodology of Bandura and Cervone, the variables were entered into the regression equation in the following order: self-satisfaction with performance, self-perceived task competence, and self-set goals. It is believed that an individual's first reaction to feedback will be self-satisfaction with the level of performance for future attempts, then evaluation of perceived competence to perform in future attempts, followed by self-set goals for future attempts. Hierarchical regression of motivation-to-learn post-feedback on motivation-to-learn pre-feedback, self-satisfaction with performance, self-perceived task competence, and self-set goals revealed that the variables were significantly related to motivation-to-learn in only one case. In the large negative discrepancy condition, self-satisfaction with performance was significantly related to motivation-to-learn. Results are shown in Table IV - 16. Since the variables were not significantly related to motivation-to-learn, a comparison between the discrepancy categories was not performed. Thus, hypothesis 6 was not supported. In Table IV - 17 the means and standard deviations of self-satisfaction with performance, self-perceived task competence, and self-set goals within the feedback discrepancy conditions are presented.

The relationship between motivation-to-learn post feedback with motivation-to-learn pre feedback partialled out and self-satisfaction with

TABLE IV - 16. HIERARCHICAL REGRESSION OF MOTIVATION-TO-LEARN POST FEEDBACK ON MOTIVATION-TO-LEARN PRE FEEDBACK, SELF-SATISFACTION, SELF-PERCEIVED TASK COMPETENCE, AND SELF-SET GOALS

Source	F to Enter	POS			DISCREPANCY CONDITION			LGNEG		
		R ²	ΔR ²		F to Enter	R ²	Δ R ²	F to Enter	R ²	Δ R ²
Motivation-to-learn										
Pre feedback	97.88	.6199	-		35.47	.4763	-	117.07	.6725	-
Self-Satisfaction	.17	.6210	.0011		.06	.4771	.0008	7.51*	.7112	.0387
Self-perceived task competence	.09	.6215	.0005		1.32	.5110	.0339	.74	.7151	.0039
Self-set goals	.25	.6232	.0017		1.09			2.89	.7295	.0144

* $p < .05$ ** $p < .01$

TABLE IV - 17. MEANS AND STANDARD DEVIATIONS FOR SELF-SATISFACTION WITH PERFORMANCE, SELF-PERCEIVED TASK COMPETENCE, AND SELF-SET GOALS

	N	POS		DISCREPANCY CONDITION			LGNEG		
		M	SD	N	M	SD	N	M	SD
Self-satisfaction	65	2.01	1.31	41	1.75	1.04	67	1.61	0.98
Self-perceived task competence	67	7.64	1.72	48	7.97	1.68	69	7.62	1.79
Self-set goals	62	92.07	8.47	44	94.08	4.48	60	92.89	8.62

estimated future performance, self-perceived task competence, and self-set goals was examined across all discrepancy conditions. Results were not significant. Results are presented in Table IV - 18.

TABLE IV - 18. HIERARCHICAL REGRESSION OF MOTIVATION-TO-LEARN POST FEEDBACK ON SELF-SATISFACTION, SELF-PERCEIVED TASK COMPETENCE, AND SELF-SET GOALS

Source	F to Enter	R ²	Δ R ²
Mot to Learn Pre-Feedback	245.56*	.6070	--
Self-satisfaction	3.10	.6145	.0076
Self-perceived task competence	1.64	.6178	.0042
Self-set goals	2.23	.6241	.0054

* $p < .05$ ** $p < .01$

Hypothesis 7

It was predicted that locus of control would moderate the relationship between feedback discrepancy and self-satisfaction, self-perceived task competence, and self-set goals.

Overall, discrepancy between actual performance and expected performance was separately regressed on self-perceived task competence, self-set goals, and self-satisfaction, with locus of control entered as a moderator. Results are shown in Table IV - 19. The discrepancy between actual performance and expected performance was significantly related to self-satisfaction with future performance. Locus of control did not moderate

TABLE IV - 19. REGRESSION OF COGNITIVE REACTIONS ON DISCREPANCY AND LOCUS OF CONTROL

Variable	Model R ²	Change in R ²	F Change in R ²
DV: Self-Satisfaction			
Discrepancy	.0257	.0257	4.16*
Locus of control	.0408	.0152	2.48
Interaction	.0448	.0040	.65
DV: Self-Set Goals			
Discrepancy	.0032	.0032	.51
Locus of control	.0486	.0454	7.28**
Interaction	.0487	.0001	.01
DV: Self-Perceived Task Competence			
Discrepancy	.0053	.0053	.87
Locus of control	.0257	.0204	3.49
Interaction	.0258	.0001	.01

* $p < .05$ ** $p < .01$

the relationship between discrepancy and the cognitive reactions as hypothesized. Locus of control itself directly predicted self-set goal.

Although locus of control did not moderate the relationship, an examination of the zero order correlations showed that individuals who tend to be internals set higher goals ($r = .20$, $p < .007$) and have higher self-perceived task competence ($r = .19$, $p < .008$) but may not show less self-satisfaction with future performance ($r = -.11$, $p < .12$). The correlations overall and within discrepancy conditions are presented in Table IV - 20.

TABLE IV - 20. CORRELATIONS BETWEEN LOCUS OF CONTROL AND SELF-SATISFACTION WITH PERFORMANCE, SELF-PERCEIVED TASK COMPETENCE, AND SELF-SET GOALS

	OVERALL	POS	DISCREPANCY CONDITIONS	
			SMNEG	LGNEG
Self-satisfaction	-.11 (173) ^a	-.04 (64)	-.02 (48)	-.24 * (67)
Self-perceived task competence	.20 ** (166)	.04 (62)	-.09 (44)	.18 (60)
Self-set goals	.19 ** (185)	-.06 (67)	-.27 * (48)	-.07 (69)

^a Number of observations

* $p < .05$, ** $p < .01$

4. ADDITIONAL EXPLORATORY ANALYSES

It was thought that examining the variables which were related to the major dependent variables in the study would provide some direction for explaining the results of this study and for providing direction for future research. This is important because the research in this area is limited. Each of the major dependent variables is discussed below.

Motivation-to-learn and Posttest Performance

Self-perceived task competence, self-satisfaction, and self-set goals and their relationship with posttest performance were examined. Pretest performance was partialled out of posttest performance. Results showed that the variable self-set goal was related to posttest performance ($r = .19$, $p < .05$). Therefore, the higher the goals set by the participants, the higher was posttest performance.

Perceived accuracy of feedback

Perceived accuracy of feedback was related to the variables self-set goals ($r = 0.15$, $p < .05$), motivation-to-learn pre-feedback ($r = 0.40$, $p < .01$), and motivation-to-learn post-feedback ($r = 0.32$, $p < .01$). Participants who reported high motivation-to-learn tended to rate the feedback as more accurate than did those participants who reported low motivation-to-learn. The participants who rated the feedback as accurate also set higher goals for learning than did those who rated the feedback as less accurate.

Self-satisfaction with performance was related to perceived accuracy of feedback ($r = 0.17$, $p < .05$). Thus, the higher the participants' satisfaction with performance, the more accurate the feedback was rated.

Self-satisfaction with future performance

Self-satisfaction with future performance was related to the variables self-set goals ($r = -.19$, $p < .01$), motivation-to-learn pre feedback ($r = -.20$, $p < .01$), motivation-to-learn post feedback ($r = -.25$, $p < .01$), satisfaction with performance ($r = .29$, $p < .01$), and actual performance ($r = .23$, $p < .01$). Thus, those individuals who were dissatisfied with the thought of scoring at the same level on the posttest that they did on the pretest set higher goals, were more motivated-to-learn, scored higher on the pretest, and were more dissatisfied with pretest performance.

Self-perceived task competence

Self-perceived task competence was related to the variables locus of control ($r = .19, p < .01$), self-set goals ($r = .14, p < .05$), actual performance ($r = .25, p < .01$), and expected performance ($r = .24, p < .01$). Thus, individuals with high self-perceived task competence tended to set higher goals, have more internal locus of control, higher expected pretest performance, and higher actual pretest performance.

Self-set goal

Self-set goal was related to the variables locus of control ($r = .20, p < .01$), motivation-to-learn post feedback ($r = .16, p < .05$), actual performance ($r = .31, p < .01$), expected performance ($r = .25, p < .01$), and posttest performance ($r = .19, p < .05$). Thus, individuals who set high goals for posttest performance tended to have high motivation-to-learn after feedback, high pretest and expected pretest performance, high posttest performance, and tended to be internals rather than externals.

Locus of Control

It was thought that participants who tend to be internal may be clustered in a particular feedback discrepancy condition because they may be similar to each other in their expectations of performance and different from those who tend to be externals. A chi square analysis was performed to test whether the numbers of internals and externals were significantly different between feedback discrepancy conditions. Results were nonsignificant ($X = 0.39, n.s.$).

In further exploratory analyses, locus of control was related to the variables motivation-to-learn ($r = 0.33, p < .01$), expected performance ($r = 0.14, p < .05$), and actual performance ($r = 0.14, p < .05$). Thus, individuals who tend to be internals reported higher motivation-to-learn, and expected and achieved higher performance.

In Chapter V a discussion of the results of the study is presented. Also, limitations of the study and directions for future research, and comments on the theoretical and practical implications of the study are presented.

CHAPTER V

DISCUSSION

The major purpose for the study was to examine the effect of providing needs assessment feedback on motivation-to-learn prior to training and on performance on a posttest assessment. The study was specifically focused on two areas. First, the effects of providing needs assessment feedback on expressed motivation-to-learn prior to training and on posttest performance were examined. Second, individuals' reactions to needs assessment feedback in terms of perceived accuracy, self-set goals, self-perceived task competence, and self-satisfaction and the relationship of these variables to motivation-to-learn prior to training were examined.

In this Chapter the findings, limitations of the study and future research directions are discussed, followed by comments on the practical and theoretical implications of the study.

1. DISCUSSION OF FINDINGS

Motivation-to-learn

The results supported the prediction of Hypothesis 1a that individuals who receive needs assessment feedback will report higher initial motivation-to-learn than will individuals who do not receive feedback. In the FEEDBACK group, the average of individuals' motivation-to-learn prior to feedback was significantly different from that of the NO FEEDBACK group. It appears that

the knowledge that feedback would be provided resulted in higher motivation-to-learn.

In the feedback group, despite higher expressed motivation-to-learn and regardless of discrepancy between expected performance and actual performance, average expressed motivation-to-learn was not significantly different from the first measurement to the second. The mean pretest score was 73%, indicating that the participants on the average already knew a fair amount of the material to be presented in the course. Although on the average the actual pretest performance of participants was not as high as they expected (i.e., their feedback discrepancy was negative), average performance of participants on the pretest was fairly good. The individuals in the FEEDBACK group may have felt that since they already knew a great deal of the material they did not need the training program to help them improve knowledge of policies and procedures, and so did not report higher motivation-to-learn.

Another possible reason that motivation-to-learn did not increase after feedback was the time frame of the second measurement. The participants filled out the first motivation-to-learn measure approximately one month before training. However, it was two weeks closer to the time of training when the post-feedback motivation-to-learn questionnaire was completed. Different variables may have impacted the participants' motivation-to-learn at the separate measurement times. Their initial motivation-to-learn may have been based on their intentions of learning the material in the program. At the second measurement time the participants may have been thinking about other issues that impacted on their motivation-to-learn. One such constraint is

the three and one-half day time frame for the program. It is speculated that the participants may have been worrying about how their job would be impacted by their absence for three and one-half days or other concerns related to attendance in the training program. No measure of motivation-to-learn at the second time was available for the NO FEEDBACK group, so no comparison between groups could be made.

These results highlight the problem with measuring motivation-to-learn, since motivation-to-learn may be impacted by different variables at different measurement times. In the present study, when motivation-to-learn was measured in the two groups at the first measurement time, comparisons between groups could be made. However, no comparison between groups could be made at the second measurement time, since only the FEEDBACK group was measured. In the present study, another measure of motivation-to-learn taken at the beginning of training may have revealed a different motivation level than either of the two measures taken prior to training.

Pretest scores were significantly different for the two groups, indicating that the participants probably reacted in some way to the knowledge that they would receive feedback. The FEEDBACK group scored higher on the pretest than did the NO FEEDBACK group. The FEEDBACK group may have perceived completion of the pretest as more worthwhile than the NO FEEDBACK group who thought they were only filling out the pretest for evaluation purposes. It is speculated that the FEEDBACK group spent more time on the pretest and filled it out more carefully. The cover letter also may have impacted the participants' motivation-to-learn, since in it were mentioned

some of the benefits they would receive from getting feedback about their pretest.

Posttest Performance

Individuals that received feedback had higher posttest scores on the average than did individuals who did not receive feedback. These results support other research (Locke et al., 1981) that shows that feedback about performance can positively impact future performance. When the effects of the pretest scores were partialled out of posttest scores of the two groups, posttest scores were significantly different. The FEEDBACK group performed better on the posttest, after controlling for the pretest scores. It is speculated that the participants in the FEEDBACK group may have paid more attention during training, may have been more focused on their particular areas of need, or may have asked questions about the feedback they received, leading to more learning during the training program.

Wexley (1984) has suggested that feedback works because it allows knowledge of whether performance is on target, makes the training more interesting, and allows for specific goal setting. In the present study, the feedback of needs assessment results allowed knowledge of whether pretest performance was on target, may have made the training more interesting by focusing the participant on areas of need, and may also have facilitated goal setting for posttest performance.

Exploratory analyses showed that pretest performance was the best predictor of posttest performance, and that initial self-perceived task competence accounted for significant variance in posttest performance

beyond that accounted for by pretest performance. It appears that individuals' feelings about their competence to perform on the pretest were also related to feelings of competence about the posttest and to actual posttest performance.

Motivation-to-learn post feedback did not account for significant variance in posttest performance, when analyzed with the effects of pretest performance partialled out. Since the measure of motivation-to-learn used in the present study had low variance, it may have been difficult to detect the hypothesized effect.

Perceived accuracy of feedback

The results did not support Hypothesis 2 that individuals who receive feedback that actual performance is lower than expected performance will rate their feedback as less accurate than will individuals who receive feedback that actual performance is higher than expected performance, that the higher the actual level of performance, the higher will be the perceived accuracy of feedback, and that individuals who tend to be internals will perceive feedback as more accurate than will individuals who tend to be externals. No relationship was found in an overall regression equation when all hypotheses were tested together. Actual performance contributed significantly to perceived accuracy of feedback, even though the overall equation was not significant. This could indicate that the variables in the equation were too redundant and therefore washed out the effect of true variance.

Ilgen et al. (1979) postulated that the sign of the feedback was important in how individuals perceived and accepted it. Therefore, the hypotheses were examined separately within the positive and negative

discrepancy conditions to determine whether the sign of the feedback would impact perceived accuracy of feedback.

No relationship was found in the positive feedback discrepancy condition. However, in the negative feedback discrepancy conditions, results show that discrepancy between actual and expected performance was related to perceived accuracy of feedback. Actual performance also contributed significantly to the relationship.

There was no difference in perceived accuracy of feedback as a result of level of locus of control. However, exploratory examination of the zero order correlations showed that locus of control was related to perceived accuracy of feedback. No matter what their discrepancy between actual performance and expected performance, persons who tend to be internals perceive feedback as more accurate than do persons who tend to be externals.

The variance of the perceived accuracy measure was low ($SD = 0.74$), and the mean was high ($M = 4.57$ on a 6-point scale), indicating that the participants, on the average, did not question the accuracy of the feedback they were given. Therefore, the power for detecting the hypothesized effect in this hypothesis was probably low.

The results of the study are consistent with those from previous research that show the favorability of feedback affects the way it is perceived by individuals (Ilgen, 1971; Halperin et al., 1976). In the present study, for individuals who received feedback that actual performance was less than expected performance, the more negative the feedback and the lower the level of performance, the more it was perceived by individuals as inaccurate.

In exploratory analyses, perceived accuracy of feedback was related to the variables self-set goal, motivation-to-learn pre-feedback, and motivation-to-learn post-feedback. It appears that more motivated individuals rated feedback as accurate, regardless of actual performance. Also, the higher the individual rated the accuracy of feedback, the higher the goals set for posttest performance.

Self-satisfaction with performance

Hypothesis 3a The results supported Hypothesis 3a that, for individuals whose actual performance is less than expected performance, the more negative the difference between expected performance and actual performance, the more dissatisfied individuals are with performance. Therefore, it appeared that individuals attended to the feedback they were given and recognized that they did not score as high as they had expected, resulting in dissatisfaction with performance. This result is consistent with the research of Ilgen (1971) who found that satisfaction with performance was the result of both the discrepancy between actual performance and expected performance and the actual level of performance itself. This result also lends credibility to the discrepancy conditions used in the present study since individuals attended to the feedback they were given and compared actual performance to expected performance.

Hypothesis 3b The results did not support Hypothesis 3b that for individuals whose actual performance is less than expected performance, the more dissatisfied those individuals are with the thought of scoring the same on the posttest as they did on the pretest, the higher their motivation-to-learn after

feedback. Results were not significant. Therefore, dissatisfaction with the thought of scoring the same on the posttest as they did on the pretest did not impact individuals' motivation-to-learn.

Since motivation-to-learn did not change after feedback in the present study, exploratory analyses were performed. Examination of zero order correlations showed that satisfaction with future performance was related to motivation-to-learn pre feedback and motivation-to-learn post feedback, within the negative discrepancy condition only. Individuals who scored less than they expected on the pretest were less satisfied with the thought of scoring the same on the posttest as they did on the pretest. Also, the lower satisfaction with future performance, the higher was motivation-to-learn after feedback. This is consistent with the results of Bandura and Cervone (1986), who found that for individuals who scored less than they expected, satisfaction with future performance contributed to motivation for future performance.

Self-perceived task competence

Hypothesis 4a The results partially supported Hypothesis 4a that individuals who receive feedback that actual performance is much different than expected performance will change their self-perceived task competence more than will individuals who receive feedback that actual performance was similar to expected performance. This relationship was predicted to hold true only if the feedback is perceived as accurate. Results showed that discrepancy between actual and expected performance but not the perceived accuracy of feedback affect an individual's change in self-perceived task competence. In the present study, discrepant feedback impacted individual's

reported self-perceived task competence. The participants tended to respond to feedback in a logical way, lowering self-perceived task competence after negative feedback and raising self-perceived task competence after positive feedback.

It is speculated that perceived accuracy of feedback did not moderate the relationship because the variance was small, resulting in less chance of detecting an effect. Also, average perceived accuracy of feedback was high, indicating that feedback was perceived as accurate in the present study.

Hypothesis 4b The results did not support Hypothesis 4b that the more an individual's self-perceived task competence increases, the more motivation-to-learn increases. Since motivation-to-learn did not change after feedback, this hypothesis was not supported.

Further exploratory analyses showed that the lower the participant's self-perceived task competence after feedback, the more positive was change in motivation-to-learn after feedback. Conversely, the higher self-perceived task competence after feedback, the more negative was change in motivation-to-learn after feedback. Previous research has shown that self-perceived task competence improved motivation for future performance because individuals felt that they had the capability to perform on future attempts (Bandura and Cervone, 1986). In the present study, it is possible that only when individuals felt a need for training (i.e., low self-perceived task competence after needs assessment feedback) did they report higher motivation-to-learn.

The results of the exploratory analysis contradict the results of Bandura and Cervone (1986) who found that self-perceived task competence improved motivation for future performance. However, the task in their study was a

physical test and it is speculated that the difference in the results in the present study may be explained by the nature of the tasks used in the studies. On the physical task in the Bandura and Cervone study the subjects were challenging themselves for no extrinsic reward. The supervisors in the present study may have felt no challenge to increase already proficient knowledge in the area of policies and procedures since no extrinsic reward would be provided to the supervisors for achieving 100% proficiency. There also may have been a difference between motivation for learning as compared to motivation to perform. In a learning setting it may be that individuals will not be motivated if they are already proficient. In another setting, performing a behavior may be motivating in itself.

In other exploratory analyses, change in self-perceived task competence was related to the variables locus of control, self-satisfaction with performance, and posttest performance. Individuals who tended to be internal were more likely to increase their self-perceived task competence after feedback than were individuals who tended to be external. Also, individuals who were not satisfied with their performance were more likely to lower their self-perceived task competence than individuals who were satisfied with their performance. The more positive the change in self-perceived task competence after feedback, the higher the participant scored on the posttest.

Self-set Goals

Hypothesis 5 The results of the study did not support Hypothesis 5 that for individuals except those in the large negative discrepancy condition, the

higher an individual's self-set goals after feedback, the more motivation-to-learn increases. Motivation-to-learn did not change after feedback, therefore this hypothesis was not supported.

However, exploratory results showed that higher motivation-to-learn after feedback was related to higher goals for posttest performance. It appears that individuals who set higher goals for posttest performance were more motivated to learn than were those individuals who set lower goals for posttest performance.

Self-set goals were related to the variables locus of control, expected performance, and actual performance. Individuals who tend to be internal set higher goals than do individuals who tend to be externals. Also, the higher an individual's expected performance and actual performance, the higher were goals for posttest performance.

Motivation-to-learn

Hypothesis 6 The results did not support Hypothesis 6 that self-perceived task competence, self-satisfaction, and self-set goals would contribute differentially to motivation-to-learn, depending on the discrepancy between actual performance and expected performance for each individual. The variables were entered into a regression equation with motivation-to-learn in each of the discrepancy conditions. If results had been significant, comparisons were to be made between the variables from each discrepancy condition to determine whether the variables contributed differentially to motivation-to-learn. Results showed that in the large negative discrepancy condition, self-satisfaction with future performance was significantly related to

motivation-to-learn. For those individuals who scored much lower on the pretest than they had expected, the lower the satisfaction with the thought of scoring the same on the posttest as they did on the pretest, the higher was reported motivation-to-learn after feedback. Results in the other discrepancy conditions were not significant.

Bandura and Cervone (1986) found that across all discrepancy conditions self-perceived task competence contributed to motivation for future performance. For individuals who scored much less than they expected, satisfaction with future performance contributed to motivation for future performance. Finally, for all individuals except those who scored much less than they expected, goals for performance contributed to motivation for future performance.

The results of the present study were not unexpected since overall motivation-to-learn was expected to increase after feedback was given but actually did not change after feedback was given. No significant relationship was found between self-perceived task competence, self-set goals, and self-satisfaction and motivation-to-learn when examined across discrepancy conditions in an exploratory analysis.

It is speculated that in the present study the two self-reactive mechanisms self-perceived task competence and self-satisfaction with future performance may have exerted an opposite effect on motivation-to-learn post feedback. The lower satisfaction with future performance, the higher was motivation-to-learn, since participants on the average did not want to score at pretest level on the posttest assessment. However, since pretest performance was fairly high participants may have believed that their self-perceived task

competence was adequate, i.e., they did not need the training. It is speculated that these participants did not believe the training was necessary.

Exploratory examination of the zero order correlations showed that locus of control, self-set goal, and perceived accuracy of feedback were related to motivation-to-learn post feedback. Participants who tended to be internals reported higher motivation-to-learn after feedback than did participants who tended to be externals. Participants with higher motivation-to-learn after feedback set higher goals for posttest performance. Participants who rated feedback as accurate also reported higher motivation-to-learn after feedback.

Finally, the relationship between self-perceived task competence, self-satisfaction with future performance, self-set goals and posttest performance was examined in an exploratory analysis to determine whether the cognitive influences exerted an effect on posttest performance. Self-set goals significantly predicted posttest performance while self-perceived task competence and self-satisfaction with future performance were not significantly related to posttest performance.

Locus of control

Hypothesis 7 The results did not support Hypothesis 7 that locus of control would moderate the relationship between discrepancy between actual and expected performance and self satisfaction, self-perceived task competence, and self-set goals. There was no difference in the discrepancy-cognitive reactions relationship as a result of varying levels of locus of control. Although the hypothesis was not supported, exploratory examination of the

zero order correlations showed that those who tended to have internal locus of control appeared to set higher goals, had higher self-perceived task competence, but were not more dissatisfied with performance than those who tend to be externals, regardless of the discrepancy between actual performance and expected performance. These results were significant although the subjects in this study tended to be, on the average, mostly internals. Locus of control was also related to satisfaction with pretest performance. This is consistent with research by Feather (1963) who found that individuals who tend to be internal accept feedback more readily than do individuals who tend to be externals.

Initial motivation-to-learn was highly related to locus of control, with internals tending to be more motivated-to-learn than were externals. Broedling (1975) showed that internals are more likely to perceive effort-performance and performance-outcome linkages than are externals. Internals tend to be more aware of their strengths and weaknesses, be more job involved, and be more career-oriented. Since the motivation-to-learn measure used in the present study was based in part on questions about how training content would relate to job or career, this may explain why motivation-to-learn as it was measured in the present study was strongly related to locus of control.

2. LIMITATIONS OF THE STUDY AND DIRECTIONS FOR FUTURE RESEARCH

The limitations of the study and directions for future research are discussed in this section. In subsequent sections, the theoretical and practical

implications of the study are discussed. The limitations of the study were in the general areas of the measurement of the variables, uncontrolled variables, and the generalizability of the results of the study. These limitations are discussed below.

Measurement of the variables

All measures were based on those used in previous research on motivation-to-learn and modifications were made only to tailor the measures specifically for the present study. A limitation may be that since the measures taken in the study were questionnaires only; common method variance may have been a problem, resulting in a stronger than actual correlation between variables.

In an attempt to validate a measure of motivation-to-learn, Baldwin and Karl (1987) compared motivation-to-learn measures similar to the one used in the present study with a motivation-to-learn measure based on the expectancy theory of motivation. The results of their research indicated that the expectancy-based measure accounted for more variance in performance, although both measures significantly predicted performance in training. In their study, Noe and Schmitt (1986) attempted to measure both expectancies about training and motivation-to-learn but had to combine their measure of motivation-to-learn and their measure of expectancies because they were so highly correlated. Research results such as these lend some validity to the concept of motivation-to-learn, since measures so highly correlated are probably tapping the same concept. In future research, motivation-to-learn could be measured in other ways. For example, behavioral intentions

regarding learning or effort toward learning (Fishbein & Ajzen, 1975) may also be a fruitful area of focus when defining and measuring motivation-to-learn.

The time at which motivation-to-learn is measured may have important consequences. In the present study motivation-to-learn was measured more than once for the same individuals. The pre-feedback motivation-to-learn measure was taken four weeks prior to training while the post-feedback motivation-to-learn measure was taken two weeks prior to training. It is speculated that motivation-to-learn may vary depending on the circumstances surrounding the course and on the time before training when it is measured. Motivation-to-learn and the variables that impact it have not been examined over time, and in future research this needs to be addressed. If motivation-to-learn varies over time, different patterns of results may be found depending on when the pre-training motivation measure is taken. This may also explain the difference in findings between this study and previous research in this area. While in previous studies motivation-to-learn was measured once at the beginning of training or after training was complete, in the present study it was measured twice during the month before training took place. In the research by Bandura and Cervone, the measures were taken during the same experimental session. It may be that motivation at the beginning and during training is the most important predictor of training performance. More research that is focused on the measurement of motivation-to-learn at different times prior to and during training would be helpful.

In the present study, locus of control was measured using the Paulhus scale although much research has been conducted using the Rotter locus of

control scale. In further research the hypotheses of the present study could be examined using the Rotter scale, making the results more comparable to those already published. Also, the subjects in this study, on the average, tended to be internals. In future research individuals who are at the extremes of the locus of control scale could be examined, perhaps lending more power to the study. However, research using subjects at the extremes of the scale would be less generalizable than those using the full range of the scale.

The discrepancy conditions used in this study were based on estimates of what participants would consider a positive, small negative, and large negative discrepancy between actual performance and expected performance. The data were split approximately into thirds based on these considerations. However, the discrepancy conditions used in this study may not have correctly categorized participants according to what they consider small negative or large negative discrepancies. Also, because of the time that had elapsed since they recorded their expected performance, participants may even have compared actual performance to initial self-perceived task competence rather than to what they recorded as expected performance. However, the significant relationship between satisfaction with performance and discrepancy between actual performance and expected performance (i.e., the more negative the discrepancy, the more individuals were dissatisfied) lends credibility to the discrepancy conditions used in the present study.

Although there were two measurement times in the present study, some of the measures used to test the hypotheses were collected at the same time. Since it is not known whether one variable predicted another variable, the results must be considered correlational, and causation cannot be assumed.

For example, on the post-feedback questionnaire individuals were asked to set their goal for future performance and then rate their motivation-to-learn. Exploratory analyses showed that self-set goals were related to motivation-to-learn post feedback. Since these measures were collected at the same time it is not known whether higher goals led to higher motivation-to-learn or whether higher motivation-to-learn led to higher goals.

Uncontrolled variables

The present study was an initial step in examining participant reactions to needs assessment feedback. Other variables that may characterize reaction to needs assessment feedback should be the focus of future research. For example, usefulness of feedback or the needs assessment instruments that are perceived by participants as the most useful in providing feedback before training should be examined.

As discussed by Ilgen et al. (1979), it is postulated that many variables would be related to perception, acceptance and use of feedback. Not all of those variables were the focus of this study. For example, the source of the feedback is important in how the individual perceives its utility. Feedback from a closer source, such as a supervisor, may be shown to have a greater effect than did the feedback in this study, which was from an anonymous organizational source. Research has shown that multiple instances of feedback lead to more acceptance of feedback and with multiple instances of feedback or feedback from other sources, the results may differ from those found here. It would be interesting to determine whether the subjects resolve discrepancies in feedback in terms of their own self-generated feedback or

externally generated feedback and what variables impact that process. Self-generated feedback has been shown to be more effective than externally generated feedback (Early, 1986). Also, the power and credibility of the source of the feedback may have a major impact.

More research is needed on how to maximize performance in training and transfer of training behavior back to the job. This research demonstrated that posttest performance could be impacted by providing needs assessment feedback and the results are probably generalizable to other settings. But given the amount of time and money it takes to train an employee, more research on how to improve performance in training would still be valuable. Long-term knowledge acquisition when feedback is given should be examined in future research. Other variables that can impact performance in training, such as ability and organizational factors, should be incorporated and the effects of motivation, ability, and organizational factors should be examined separately. Other individual difference characteristics such as need for achievement that could impact the effectiveness of training or of feedback prior to training should be examined.

Generalizability of the results

The supervisors who comprised the sample in the present study had a fairly long tenure with the organization. Managers or employees with long tenure with an organization may react to feedback in different ways than do members of organizations with less tenure. Previous research has shown that as employees' tenure with an organization increases, the use of feedback generally decreases (Meyer and Walker, 1961). Also, members of an

organization at various levels or in various functions may use feedback in different ways. More research about how individuals at different points in their career use feedback from needs assessment prior to training would be interesting.

The participants in the present study were mostly middle level managers and were predominantly male. Results may have been different if the setting were an organization in which a more diverse work group existed. This research should be replicated in different populations, such as a non-managerial population and one with a higher percentage of women.

The training program that was part of the present study was mandatory for the subjects in the study. All supervisors had to take it regardless of their knowledge level, which averaged high prior to training. In further research, the hypotheses of the present study should be examined in a situation where training is voluntary to determine if the results are comparable to those from a situation where training is mandatory or where participants had a genuine need to learn the material in the program. Results may be quite different if the subject desires to go to training because he or she perceives a need for the training and has the choice to go to training. In the study by Hicks and Klimoski (1987), choice of training predicted performance in training presumably because the participant was committed to training. Also, results may be different in organizations in which a very positive climate for development exists, where the participant receives either tangible or intangible rewards for completing the training program. The participants in the present study were not directly rewarded with pay increases or promotion for learning the material in this program. In future research these variables

should be addressed in a setting in which improvement in performance is rewarded to a greater degree.

Training that focuses on different content should also be the focus of future research. Motivation-to-learn may vary depending on whether the training is focused on skill or attitude change as opposed to knowledge acquisition, which was the focus of the present study. It is speculated that a program that focuses on skills acquisition and that includes practice would be more motivating. Also, other content than policies and procedures would probably be more interesting to participants.

Finally, motivation-to-learn should be examined in future research in different field settings and in a laboratory setting. Since both laboratory and field research is important for understanding of motivation-to-learn, replication of the present study and extension of its findings to other populations and other settings would be valuable.

3. THEORETICAL IMPLICATIONS

The results of this study demonstrate the importance of studying individual reaction to needs assessment feedback in terms of impact on motivation-to-learn and on posttest performance in organizational training. The area of motivation-to-learn has received increased attention, but little empirical research has been conducted to support the predictions of theorists in this area. This research extended and integrated past research in the areas of motivation-to-learn, feedback, and control systems.

One problem that limits the development of a model pertaining to motivation-to-learn in training has been that the motivation field lacks a

generally accepted model. With so many different measures of motivation it is difficult to generalize results across studies. Motivation has been conceptualized using a variety of models and variables that include needs, goal setting, expectancies, and behavioral intentions. In the present study motivation-to-learn was measured using questionnaire items regarding how motivated participants were to learn the material in the training program. The results of this study showed that motivation-to-learn as it was measured could be positively impacted prior to training by promising feedback from needs assessment.

Trainee motivation prior to training has predicted success in training in previous studies (Hicks, 1984; Ryman and Biersner, 1975). However, motivation has been measured in a variety of ways and in a few cases may have been confounded with ability. Examples of motivation measures used in previous studies are self-reports of effort, attitudes about training, and perceived ability. Unlike other studies which have found that motivation-to-learn predicts performance in training, the present study did not find that motivation-to-learn predicted posttest performance. In fact, based on the results of the present study, it is speculated that the relationship between motivation-to-learn and other variables may be situational. That is, motivation-to-learn may vary depending on at what point in relationship to the training program it is measured. For example, motivation-to-learn may be higher a month before the training than it is at the time of training, or vice versa. Motivation-to-learn prior to training may have no relationship to motivation-to-learn at the beginning of training or during training. It is speculated that the factors associated with the training program may have motivated or

demotivated the participants in ways that were unrelated to motivation-to-learn prior to the program.

In the present study motivation-to-learn after feedback did not change as it did in the laboratory study of Bandura and Cervone (1986). When the measures used in the present study were piloted in a university classroom setting, results were highly significant and very similar to those of Bandura and Cervone (1986). The difference in results may be that the students in the pilot sample greatly desired higher future performance since performance determined their class grades. Another reason the results may be different in the present study is because supervisors did not receive rewards such as increased pay or promotions for learning the material in the training program. The measurements were closer together in the classroom setting, as were the measurements in the Bandura and Cervone research.

Wexley (1984) cited the need for more research on how to impact motivation before training begins. In previous research, feedback has been shown consistently to improve performance under conditions of goal setting. In the present study it was hypothesized that providing feedback would improve an individual's motivation-to-learn before training begins because it allows for the opportunity for goal setting and clarifying expectancies about training. Results showed that participants in the feedback group reported higher motivation-to-learn than did those participants who did not receive feedback, when measured prior to training. Because the NO FEEDBACK group did not receive the second motivation-to-learn measure, the two groups could not be compared on motivation-to-learn after the receipt of feedback.

The present study extended the results of feedback research into a training setting.

Research that will help improve the effectiveness of the training process is greatly needed. Little research has been conducted on how to maximize the impact of training or on impacting motivation-to-learn. In this study the impact of reactions to feedback from needs assessment on motivation-to-learn and posttest performance in a training program was examined. Individuals who were to receive feedback from needs assessment reported higher motivation-to-learn. They also had higher posttest performance in training. Although the exact mechanisms for this were not as predicted in this study, it was shown that these variables could be impacted.

Feedback was shown to impact performance in training and motivation-to-learn prior to training. However, the mechanisms through which feedback impacts motivation were also a focus of the present study. Following the suggestions of Stone and Stone (1985), reactions to both positive and negative feedback were addressed in the present study. Individuals received their true feedback, either positive or negative depending on how they performed and on how they expected to perform. The results of the present study contributed to understanding about how participants may react to negative feedback, as well as positive feedback. This is especially important since trainees might receive negatively discrepant feedback from a needs assessment. For example, training is usually provided only for those not meeting their performance goals and therefore, feedback from needs assessment may tend to reflect less than adequate performance. In the present study although feedback was generally rated as accurate, results

showed that the more negative the feedback, the more it was perceived as inaccurate. Since feedback about performance may be provided as part of the training process, participants may also perceive this feedback as inaccurate. The success of the training program may be diminished if feedback is not perceived as accurate and is not accepted.

The present study may have had an advantage over the Bandura and Cervone study since feedback was given as an actual part of the participants' job. However, a disadvantage of the present study was that the feedback was anonymous, from a source that the participants did not know. As discussed in a previous section, in future research the same issues should be addressed in a setting in which feedback is more psychologically close. In the present study the feedback was effective in terms of impacting motivation-to-learn and posttest performance, but feedback from an alternate source may have been even more effective.

As postulated by Ilgen et al., feedback that actual performance differs from expected performance may affect the way an individual accepts and uses feedback. They postulate that many variables can impact this process, including the magnitude and sign of the discrepancy between expected performance and actual performance, the credibility of the source, and individual difference characteristics. Gist (1987) cited the need for research on self-efficacy and how it impacts reactions to feedback and how feedback affects subsequent performance. The research reported here aided in understanding reaction to needs assessment and particularly on the cognitive mechanisms underlying individual's reactions to needs assessment feedback, specifically self-satisfaction with performance, self-perceived task

competence, and self-set goals. In the present study the magnitude and sign of the feedback were a focus as well as the individual difference characteristic locus of control.

In the present study, individuals tended to react in logical ways to the feedback they were given. For example, if discrepancies between actual performance and expected performance were negative, individuals tended to lower their self-perceived task competence, while if the discrepancies were positive they tended to raise their self-perceived task competence.

In the present study, self-perceived task competence was negatively related to change in motivation-to-learn. Individuals with low self-perceived task competence after needs assessment feedback reported a more positive change in motivation-to-learn. These results contradict those of Bandura and Cervone that self-perceived task competence was positively related to motivation-to-learn. The relationship between self-perceived task competence and motivation-to-learn may be moderated by another variable, such as desire to perform. Since self-perceived task competence has been shown to be related to performance, research in this area helps delineate how reactions to feedback may be related to motivation-to-learn and to performance in training.

Another cognitive self-reaction to feedback that was the focus of the present study was dissatisfaction with present and future performance. If individuals scored less than they expected they tended to be dissatisfied with their performance. Individuals who scored much lower than they expected and who were dissatisfied with the thought of possible scoring the same on the posttest as they did on the pretest reported higher motivation-to-learn.

Although the relationship of satisfaction with future performance with motivation-to-learn was not as expected across all discrepancy conditions, individuals who are dissatisfied with performance may be more motivated and therefore more predisposed to learn the material in training.

The third cognitive self-reaction to feedback that was the focus of the present study was self-set goals. Individuals' actual performance was highly related to their goals for future performance. Individuals who set higher goals also reported higher motivation-to-learn. Finally, individuals with higher goals performed better on the posttest assessment. This is consistent with previous research on the relationship between feedback and goal setting to performance (Locke et al., 1981). The results of the present study also showed that goals were related to motivation-to-learn.

It was hypothesized that the reactions of self-perceived task competence, self-satisfaction, and self-set goals would contribute to motivation-to-learn differentially depending on the discrepancy between their actual performance and expected performance. Unfortunately, these self reactions were not related to motivation-to-learn as hypothesized. Since the overall regression equation was not significant, comparisons between discrepancy conditions were not made. Bandura and Cervone (1986) found that across all discrepancy conditions self-perceived task competence contributed to motivation for future performance. For individuals who scored much less than they expected, satisfaction with future performance contributed to motivation for future performance. Finally, for all individuals except those who scored much less than they expected, goals for performance contributed to motivation for future performance. Bandura and Cervone (1986) suggested

that the research they conducted on self-satisfaction, self-perceived task competence, and self-set goals be extended to a field setting. It was hoped that in the present study these variables would help explain the impact of reaction to feedback on motivation-to-learn prior to training but results were inconclusive.

Noe and Schmitt (1986) tested the first model pertaining to motivation-to-learn in a training setting. In their study reaction to needs assessment was measured using several questionnaire items. The research reported here extended the research of Noe and Schmitt (1986) by taking a more micro approach to the study of reaction to needs assessment feedback and its effect on motivation-to-learn prior to training. Reaction to needs assessment feedback in the present study was characterized by more than one variable (perceived accuracy of feedback, self-perceived task competence, self-set goal, and self-satisfaction), and these variables were studied in terms of impact on motivation-to-learn. Although not all hypotheses were supported in the present study, it was shown that reaction to needs assessment feedback could be characterized more specifically. Following suggestions by Noe and Schmitt that their model be tested on other populations since their results may not be generalizable beyond school administrators, the present study was conducted in a different organizational setting.

It was assumed in the present study that the self-reactive mechanisms self-perceived task competence, self-set goals, and satisfaction with future performance would occur in a particular order to contribute to motivation-to-learn. Bandura and Cervone predicted that reaction to performance in terms of satisfaction or dissatisfaction would occur first, followed by the feeling of

whether the future performance was possible (self-perceived task competence), then by self-set goals for future performance, although they did not measure the variables separately to determine antecedence. Since the three variables were measured at the same time in the present study, it was not possible to determine the antecedence of the variables. In further research, the antecedence of these variables should be examined.

Bandura and Cervone (1986) found that within different feedback discrepancy conditions, the goals which individuals set for future performance varied widely. Some of the subjects set higher goals, believing that better performance was possible and desirable, while others lowered their goals, believing that they would not be able to maintain the same performance or that the same performance was not desirable. Another group of subjects maintained the same goal. It was thought that individual difference characteristics such as locus of control might impact reaction to feedback and therefore, motivational processes such as goal setting or other self-reactions after the receipt of feedback. In the present study, locus of control did not moderate the relationship between an individual's feedback discrepancy and self-set goals, self-perceived task competence, and self-satisfaction. But overall, zero order correlations showed that individuals who tend to be internals tended to set higher goals, have higher self-perceived task competence, but may not have higher dissatisfaction with performance than did individuals who tend to be externals, regardless of the discrepancy between actual and expected performance.

Results showed that individuals who tend to be internal perceive feedback as more accurate, change self-perceived task competence to a

greater degree after feedback, and set higher goals than did individuals who tend to be external. It is speculated that they may be more successful in training because they use feedback to improve performance and may also set higher goals for performance. Depending on level of locus of control, individuals may have preference for more or less control over their learning environment. Internals may prefer more control over their learning situation while externals may prefer to be provided more guidance. The training staff may be able to assess trainees prior to training and tailor the learning situation to meet individual needs. More research is needed on how individual difference characteristics such as locus of control may impact perception of and response to feedback in a training situation or arrangement of the learning environment.

Initial motivation-to-learn was highly related to locus of control, with internals tending to be more motivated-to-learn than were externals. Broedling (1975) showed that internals are more likely to perceive effort-performance and performance-outcome linkages than are externals. Internals tend to be more aware of their strengths and weaknesses, be more job involved, and be more career-oriented. Since the motivation-to-learn measure used in the present study was based in part on questions about how training content would relate to job or career, this may explain why motivation-to-learn as it was measured in the present study was strongly related to locus of control.

4. PRACTICAL IMPLICATIONS

The major purpose of the present study was to examine the effect of reactions to needs assessment feedback on motivation-to-learn prior to training and to performance on a posttest assessment. Also studied were individuals' cognitive reactions to feedback and the impact of the variables on motivation-to-learn.

The results of the present study may help guide the training staff in the design of training programs. Since providing feedback from needs assessment prior to training improved motivation-to-learn and was also related to posttest performance in the present study, the training staff may choose whether feedback from needs assessment should be included prior to all training programs. Although the exact relationship between motivation-to-learn and posttest performance was not established in the present study, posttest performance was positively impacted as a result of providing feedback. It is speculated that motivation-to-learn at the beginning of or during training may be more related to performance in training or to posttest performance than was motivation-to-learn prior to training.

The process of providing feedback from needs assessment may provide justification for an organization to conduct a good needs assessment prior to the development of a training program. A carefully designed training program will start with a thorough needs assessment that consists of defining the skills needed on the job and matching the delivery of the program to provide those skills. The target population should be assessed to determine if they already have those skills or on what skills they should concentrate in training. Needs assessments are time consuming and not often conducted in

organizations, but if performance in training can be impacted by providing feedback from needs assessment, the training staff may have more justification for conducting a good needs assessment.

Organizations spend a great deal of money on training, and improved performance may help the training staff to also justify the cost of training programs. Measurement of performance improvements can facilitate in computing the payoff of training in dollar terms. In times of budget cuts human resource functions like training are often hit hard and need to justify training as a benefit rather than as a cost.

Clarifying expectancies and facilitating goal setting may be useful for a variety of training programs. The results of the present study showed that self-set goals for posttest performance were related to motivation-to-learn and to performance in training. Unfortunately, goal setting is rarely conducted in training programs today. The training staff may want to try to impact a participants' goal setting process prior to training in order to maximize the effectiveness of training, since higher goals may lead to higher performance in training. Asking the participants to set goals can be a fairly easy intervention for the training staff to make.

It is speculated that training funds may be wasted on individuals with low motivation-to-learn since they may not participate actively in the training program. The training staff could conduct a pre-assessment to determine the level of participants' motivation-to-learn and to identify reasons why motivation is high or low. The reasons for high or low motivation-to-learn could range from past experiences with the training department to feelings that useful skills won't be learned in the program. If the variables impacting motivation-to-learn

could be identified, interventions could be used to increase motivation-to-learn prior to training. One intervention could be to help match trainees to specific types of training that they need and prefer. Then the trainees can recognize that task competence is low and can set goals for performance improvement. Individuals who feel from the needs assessment feedback that they do not need a training program because it does not match their needs, may be able to self-select out of the training program. Another intervention could include linking expectations of the program with actual program objectives and linking effort expectancies with possible rewards from completing the program. The Training Department could also promote their programs more effectively by focusing more attention on what skills training will provide and what rewards participants may receive for learning these skills.

The results of the present study showed that initial self-perceived task competence, actual pretest performance, and expected pretest performance were all related. It appears that in general these participants were able to fairly accurately assess their knowledge of the material covered by this particular training program. Regular self-assessments by employees in an organizations could also serve as a useful tool for the development of future training programs by defining individuals' training needs. Other uses of employee self-assessments include better input into planning for future positions, self-assessment of skills for feedback on the present job, and self-assessments for performance appraisals.

The results of this study to could be used to approach the problems of giving negative feedback. It appeared in this particular study in general that

the feedback was rated as accurate, no matter what the magnitude of discrepancy between actual performance and expected performance. It is speculated that the feedback was perceived as accurate because it was specific and based directly on the content of training. However, the more negative the feedback, the more it was perceived as inaccurate. If poor performers, who are more likely to receive negative feedback, do not perceive the feedback as accurate, they may not want or feel the need to correct behavior or want to attend a training program designed to help them improve that skill. Depending on the type of behavior, knowledge, or skill they are lacking for their job, this may have important implications for organizational productivity.

More research is needed to determine how different needs assessment instruments and different sources of feedback impact a participant's perceived accuracy of feedback. In this study feedback was anonymous and perceived accuracy may differ when feedback is from alternate sources. Participants rated perceived accuracy as generally high, even though the source of the feedback was anonymous and feedback was not provided face-to-face. However, the feedback was specific and based on training content and so may have seemed credible to participants.

It appeared in the present study that individuals generally reacted logically to feedback and make appropriate changes in self-perceived task competence. That is, if feedback is negative they lower their self-perceived task competence while if feedback is positive they raise their self-perceived task competence. Feedback can be useful both before and during training and may impact self-perceived task competence during training.

Although results were inconclusive in the present study, Bandura and Cervone found that higher self-perceived task competence was related to higher motivation for future performance. In the present study the results were opposite, with lower self-perceived task competence related to a more positive change in motivation-to-learn. It may be that other variables predict whether individuals' self-perceived task competence is positively or negatively related to motivation-to-learn as a result of receiving feedback. This is important because self-perceived task competence has been related to improved performance in an organizational setting.

Those who tended to have internal locus of control appeared to set higher goals, had higher self-perceived task competence, but were not more dissatisfied with performance than those who tend to be externals, regardless of the discrepancy between actual performance and expected performance. These individuals also reported higher motivation-to-learn, expected higher performance, achieved higher performance on the pretest assessment, and scored higher on the posttest assessment than did individuals who tend to be externals. It appears that individuals who tend to be internals may be more successful in training than those who tend to be externals. They may be more job-oriented, set higher goals, and be more motivated. Individuals who tend to be internals may be more motivated than those who tend to be external. Externals may need assistance in clarifying performance-outcome linkages and in career planning. Locus of control is a relatively stable personality variable but research has shown that it can be impacted (Lefcourt, 1982). It may be that impacting locus of control could be part of an employee's

development process so that the employee feels more control over the work environment and the training environment.

In conclusion, the present study was conducted to determine the effect on individuals' motivation-to-learn of feedback of needs assessment information. Individuals who were provided with feedback from a needs assessment were postulated to report higher motivation-to-learn than were individuals who did not receive feedback from a needs assessment. Individuals who received feedback from a needs assessment were postulated to score higher on a posttest assessment than individuals who did not receive feedback from a needs assessment. Motivation-to-learn prior to training was examined as it was impacted by cognitive mechanisms underlying reaction to feedback.

The results showed that individuals who received feedback from needs assessment had higher posttest assessment scores than did those who did not receive needs assessment feedback. Also, individuals who received feedback from needs assessment reported higher initial motivation-to-learn than did those who did not receive needs assessment feedback. For individuals who received feedback that actual performance was less than expected performance, the closer actual performance was to expected performance, the more individuals were dissatisfied with performance and the more feedback was perceived as accurate. Individuals reacted to feedback information by changing their self-perceived task competence in logical ways. Individuals who received feedback that actual performance was lower than expected performance lowered their self-perceived task competence while

individuals who received feedback that actual performance was higher than expected performance raised their self-perceived task competence. In terms of motivation-to-learn, individuals who were dissatisfied with their performance reported higher motivation-to-learn. Individuals who tended to have internal locus of control set higher goals, had higher self-perceived task competence, but did not show less self-satisfaction with performance than did those individuals who tended to be externals. Goals were related to posttest performance.

It was concluded that feedback from needs assessment information is useful to the extent that participants score higher on a posttest assessment than did individuals who did not receive feedback from skills assessment. However, the results surrounding motivation-to-learn were less clear-cut. Although it was speculated that motivation-to-learn would increase after feedback, average reported motivation-to-learn was not significantly different after feedback no matter what the difference between a participants' actual performance and expected performance. And regardless of the level of motivation-to-learn after feedback, posttest scores were higher for the feedback group than for the no feedback group; there was no relationship between motivation-to-learn and posttest performance in the present study.

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APPENDIXES

APPENDIX A
POWER ANALYSIS

Multiple Regression*

Target power = .80

Effect size (R^2) = .15

Significance Level = .05

Noncentrality Parameter (L) = 13.62

Degrees of Freedom = 6 (provides the most conservative estimate)

$$N = \frac{L(1 - R^2)}{R^2} + u + 1$$

$$N = \frac{13.62(1 - .15)}{.15} + 6 + 1 = 84$$

t-test*

Target power = .80

Effect Size (d) = .50

Significance Level = .05

$N = 50$ in each group

Correlation*

Target Power = .80

Effect size (r) = .30

Significance Level = .05

$N = 68$

Analysis of Covariance*

Target Power = .80

Effect size (f) = .25

Significance Level = .05

Numerator degrees of freedom = 1

$N = 95$

*From: Cohen, J. (1977). Statistical power analysis for the behavioral sciences. NY: Academic Press.

APPENDIX B
COVER LETTER

Memorandum

FROM : Terri L. Lyon

DATE :

SUBJECT: ORIENTATION TO SUPERVISION - ASSESSMENT

Your organization has recently registered you to attend the Orientation to Supervision training program. In approximately two weeks, you will receive an introductory memo from the
describing the place and time of training.

I am a _____ in the _____ in the
My job is to assist the training staff in their
continuing effort to improve the effectiveness of their training
programs. As part of that evaluation, I would like you to complete and
return the attached assessment.

The assessment is designed for two purposes:

- (1) As part of the Orientation to Supervision training, you will receive feedback about your answers on the attached policies and procedures assessment, which was designed to cover the important topics presented in OTS. The feedback will help you identify the areas in which you may need to update your knowledge. Then, you can emphasize those areas in Orientation to Supervision training. If the feedback indicates that you are extremely knowledgeable in policies and procedures, you can be an excellent resource for other supervisors during the training. Your experiences and knowledge can help make the training even more effective and your fellow supervisors will benefit.
- (2) The assessment will also help me evaluate OTS and determine how OTS can be improved to better meet the needs of supervisors. I will use the information to determine how much supervisors know before they attend OTS and how much they learn in the training program itself.

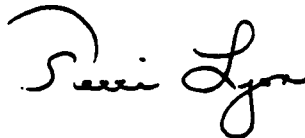
After you return the packet to me, I will score your assessment and mail you specific feedback about the different areas of the test. The feedback, which will be provided before you attend OTS, will let you know where the information is covered in the Supervisor's Handbook and also where that topic will be emphasized in training.

ORIENTATION TO SUPERVISION - ASSESSMENT

I've designed the assessment so that you may fold it over and staple it when you are through, and it can be directly mailed to me. YOUR ANSWERS WILL BE COMPLETELY CONFIDENTIAL. I am the only person who will have access to that information. Your feedback will be mailed to you in an envelope marked ADMINISTRATIVELY CONFIDENTIAL. I will compile the data for evaluation on a group basis only; no results will ever be tied to individuals.

Please return this assessment within three days of receipt and mail it to me at 305 HIB-K so that I may mail your feedback as quickly as possible. If you have any questions or comments about this assessment, please feel free to contact me at 6153-K.

TLL
Attachments

A handwritten signature in cursive script, appearing to read "David Lyon".

APPENDIX C
COVER LETTER

Memorandum

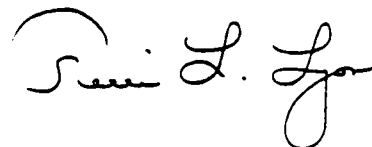
TO :
FROM : Terri L. Lyon
DATE :
SUBJECT: ORIENTATION TO SUPERVISION - ASSESSMENT

Your organization has recently registered you as a participant in an upcoming Orientation to Supervision course. You will receive an introductory memo that will provide you with detailed information about the dates, location, and content of the training program.

My job is to evaluate the effectiveness of the Orientation to Supervision training program. I am asking you to complete the attached assessment now and a similar one after the course is over to help me determine whether people learn the material presented in OTS. Your social security number is being requested so that we may match your answers to those from the assessment which will be mailed to you after the course is over. All results used for evaluation will be group based and will not be associated with individuals. The confidentiality of your answers is guaranteed by the

Please fill out the assessment promptly and return it to me at 305 HIB-K within three days of receipt. If you have any questions about the assessment you can reach me at extension 6153-K. Thank you for taking the time to complete this assessment. Your effort will help improve the effectiveness of Orientation to Supervision.

TLL
Attachments



APPENDIX D
PRE-FEEDBACK QUESTIONNAIRE MEASURES

Your answers to this section will be used to improve the effectiveness of training at

Please circle the response that best corresponds to your agreement with each statement.

- | | STRONGLY DISAGREE | DISAGREE | SLIGHTLY DISAGREE | SLIGHTLY AGREE | AGREE | STRONGLY AGREE |
|---|-------------------|----------|-------------------|----------------|-------|----------------|
| 1. I am knowledgeable of policies and procedures. | (1) | (2) | (3) | (4) | (5) | (6) |
| 2. I could give accurate information to another person who asked me about policies and procedures. | (1) | (2) | (3) | (4) | (5) | (6) |
| 3. The knowledge that I gain in this training program will help me better perform my job. | (1) | (2) | (3) | (4) | (5) | (6) |
| 4. I will try to learn as much as I can in OTS. | (1) | (2) | (3) | (4) | (5) | (6) |
| 5. I am motivated to learn the material presented in OTS. | (1) | (2) | (3) | (4) | (5) | (6) |
| 6. I will learn more of the material in OTS than other supervisors who attend the training program. | (1) | (2) | (3) | (4) | (5) | (6) |
| 7. I am sure that I can gain valuable knowledge by attending OTS. | (1) | (2) | (3) | (4) | (5) | (6) |
| 8. The knowledge that I gain in this training program may help further my career. | (1) | (2) | (3) | (4) | (5) | (6) |
| 9. I am looking forward to attending OTS. | (1) | (2) | (3) | (4) | (5) | (6) |
| 10. OTS will help me set standards for my performance as a supervisor. | (1) | (2) | (3) | (4) | (5) | (6) |
| 11. Even if I don't learn as much as I'd like in OTS, the training will be a valuable experience. | (1) | (2) | (3) | (4) | (5) | (6) |
| 12. If I have trouble understanding the material presented in OTS, I will try harder. | (1) | (2) | (3) | (4) | (5) | (6) |

Your answers to the following questions will help us learn more about the supervisors who attend OTS. Using the following 7-point scale, please respond to the questions listed below by circling the number you think is most appropriate. This scale assesses your personal opinions. There are no "right" or "wrong" answers. Your answers will be used for research purposes only and will remain completely confidential. Only group results will be assessed.

- | | STRONGLY DISAGREE | DISAGREE | SLIGHTLY DISAGREE | NEUTRAL | SLIGHTLY AGREE | AGREE | STRONGLY AGREE |
|---|-------------------|----------|-------------------|---------|----------------|-------|----------------|
| 1. I can learn almost anything if I set my mind to it. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2. When I get what I want it's usually because I worked hard for it. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 3. When I make plans I am almost certain to make them work. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 4. I prefer games involving some luck over games requiring pure skill. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 5. I usually don't set goals because I have a hard time following through on them. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 6. Competition discourages excellence. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 7. My major accomplishments are entirely due to my hard work and ability. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 8. On any sort of exam or competition I like to know how well I do relative to everyone else. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 9. Often people get ahead just by being lucky. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 10. It's pointless to keep working on something that's too difficult for me. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |

APPENDIX E
PRETEST ASSESSMENT

ORIENTATION TO SUPERVISION - ASSESSMENT

PLEASE ANSWER THE QUESTIONS WITHOUT THE USE OF ANY REFERENCE MATERIAL. You may not know all the answers. However, you should still do your best to choose the correct answer. Circle the number of the response you think best answers the question.

Social Security Number _____

HEALTH AND SAFETY

1. A medical examination is required in all of the following cases except:
 - (1) periodic monitoring exams for aircraft pilots
 - (2) return to work after being assigned leave without pay for three weeks
 - (3) transfer to an assignment involving exposure to ionizing radiation.
 - (4) termination from a position involving exposure to a hazardous agent.

2. Indicate whether each of the following is the responsibility of the supervisor:

	YES	NO
(1) Terminating employees who do not work safely	_____	_____
(2) Investigating accidents	_____	_____
(3) Encouraging employees to report health and safety concerns only to the supervisor	_____	_____
(4) Planning the job so it may be carried out safely	_____	_____
(5) Handling all safety problems personally	_____	_____
(6) Encouraging employee safety off the job	_____	_____
(7) Checking the employee's equipment and tools	_____	_____

TRAINING AND DEVELOPMENT

1. Which of the following is not a type of training offered within _____ ?
 - (1) Achievement motivation training
 - (2) Technical training
 - (3) Developmental training
 - (4) Occupational qualifying training

2. Organizational development at _____ helps the supervisor to identify the developmental needs of the work group and to map out a strategy for meeting those needs. Which of the following would not be considered a form of organizational development?
 - (1) using a new decision making approach that involves greater employee participation
 - (2) implementing a "quality circle" to improve efficiency
 - (3) using team building to improve cooperation and information sharing
 - (4) developing a flexible cafeteria benefits plan for all employees in the workgroup

3. A subordinate needs to have a broader view of her organization. She is a highly skilled employee in her current position and has excellent service reviews. Which of the following should her supervisor recommend?
 - (1) academic degree
 - (2) rotation assignment
 - (3) transfer to another position
 - (4) technical training

APPEALS AND GRIEVANCES

1. An Equal Employment Opportunity (EEO) investigator seeking an affidavit and documenting evidence should be:
 - (1) cooperated with fully
 - (2) referred to Equal Employment Staff
 - (3) required to produce an "investigative record" stating what information is required.
 - (4) referred to the
2. Employees who believe that they may have been treated unfairly or contrary to policy may formally complain:
 - (1) only if the issue is covered under the negotiated agreements or involves safety or illegal discrimination
 - (2) through a wide variety of sometimes overlapping channels.
 - (3) only after making a "good faith" attempt to resolve the issue with the supervisor.
 - (4) through the channel designated as "preferred and exclusive" for that type of complaint by
3. Federal laws and regulations provide that any employee who is a member of a protected class may file a complaint if they suspect they have been discriminated against. Which of the following characteristics qualify a person as a protected group member?

	<u>Protected</u>	<u>Not Protected</u>
(1) Black	_____	_____
(2) White, not of Hispanic origin	_____	_____
(3) Protestant	_____	_____
(4) Jewish	_____	_____
(5) Male	_____	_____
(6) Female	_____	_____
(7) 35 years old	_____	_____
(8) 45 years old	_____	_____
(9) Physically Handicapped	_____	_____
(10) Mentally Handicapped	_____	_____
(11) Complainant in a prior EEO complaint	_____	_____
(12) Witness in a prior EEO complaint	_____	_____

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION

1. Equal Employment Opportunity :
 - (1) is required only for employment decisions, not for organizational programs and activities
 - (2) refers to the strategies developed to achieve Affirmative Action
 - (3) is the right of all persons to work and advance on the basis of merit, ability, and potential
 - (4) is the right of minorities and women to have preference in employment decisions
2. goal is to overcome the effects of historical discrimination and to build a work force that reflects the demographic base of the region. This goal is to be achieved by what year?
 - (1) 1988
 - (2) 1990
 - (3) 1992
 - (4) 1994

OTHER INFORMATION YOU SHOULD KNOW

1. How you should collect, access, handle, use, and dispose of information may be controlled by law, regulation, or other legal procedures. All of the following laws are relevant to information protection except the:
 - (1) Equal Pay Act of 1965
 - (2) Privacy Act
 - (3) Freedom of Information Act
 - (4) Equal Employment Opportunity Act

2. Personal notes by the supervisor concerning employee performance:
 - (1) are explicitly prohibited by law in almost all situations and should not be kept.
 - (2) are excluded from coverage by the Privacy Act and can legally be withheld from employees.
 - (3) can be legally accessed by an employee if they are used in any decisions on personnel actions
 - (4) can be legally accessed by an employee if they contain any work-related information.

3. A supervisor who follows proper security and control measures for Personal History Records (PHRs) would not:
 - (1) remove the PHR from property
 - (2) route the PHR through mail
 - (3) allow an employee access to his/her own PHR
 - (4) destroy the PHR immediately upon having made use of it.

4. Restoration entitlements for employees recovering from a job-related injury differ based upon:
 - (1) the employment status (hourly, part time, or annual) of the individual's replacement.
 - (2) the employment status and amount of accrued service of the recovering employee.
 - (3) whether the individual remained on the payroll or received Office of Workmen's Compensation Programs compensation.
 - (4) the nature and timing of the employee's recovery.

5. One of the hardest jobs has in complying with the Act is deciding who is a for purposes of the . Which of the following is always a under the ?
 - (1) An honorably separated veteran (not retired) who served on active duty during any war
 - (2) A widow or widower of a veteran
 - (3) The mother of a veteran who died under honorable conditions while on active duty in a war
 - (4) A retired veteran who retired above the rank of major or the equivalent

WORK SCHEDULES AND LEAVE

1. When is it appropriate for a supervisor to grant an employee sick leave, annual leave, or leave without pay (at the employee's preference)?
 - (1) When the employee, due to illness, is unable to perform job duties to the point that the supervisor is concerned about her safety.
 - (2) When the employee verbally requests leave without pay.
 - (3) When the employee is threatening to file a complaint.
 - (4) When the employee requests sick leave to take care of her spouse.

2. Sick leave is correctly granted to an employee in all of the following cases except when:
- (1) pregnancy and confinement prevent the employee from working
 - (2) the employee received a dental examination
 - (3) the employee is required to care for a member of his or her immediate family who has an illness
 - (4) the employee would jeopardize the health of others by being present at work, because of exposure to a quarantinable communicable disease

SELECTING THE RIGHT PERSON FOR THE JOB

1. What is the best way to handle conflict in the selection interview? For example, what is the best way to deal with a person who tries to dominate the interview?
 - (1) Do not confront the candidate about the situation
 - (2) Be persistent about stopping the behavior
 - (3) Note this behavior on the interview form but do not mention it in the interview
 - (4) Rule out this candidate because this type of behavior will probably transfer to the job
2. What is an example of "active listening" by the interviewer during the selection interview?
 - (1) Being an active participant in the interview by doing most of the talking
 - (2) Showing that the message is heard (i.e., with a nod, eye contact, or vocal response)
 - (3) Concentrating on what the candidate says to avoid having to summarize the information and check it for accuracy with the candidate
 - (4) Challenging any vague or ambiguous information provided by the candidate
3. The interviewer may intentionally or unintentionally introduce some form of bias into the selection interview which can result in the interviewer failing to evaluate in an objective manner. Which of the following is the more objective method for the supervisor to use in conducting the selection interview?
 - (1) Judging each interviewee on the same basis
 - (2) Comparing the interviewee to the immediately preceding applicant
 - (3) Generalizing an overall impression of an interviewee from one piece of information gained in the interview
 - (4) Generating expectations of an interviewee based on information obtained before or at the beginning of the interview
4. Questions to the candidate in some of the following subject areas are considered fair preemployment inquiries and some are considered unfair because they may be discriminatory to some job candidates. For each subject, indicate whether it is a fair or unfair inquiry.

	FAIR	UNFAIR
A. Whether a candidate is over the age of 40	_____	_____
B. Whether a candidate has a handicap	_____	_____
C. Whether a candidate can lift 25 pounds in a job that requires such lifting	_____	_____
D. Whether the candidate was born overseas	_____	_____
E. Whether the candidate anticipates being pregnant in the next year	_____	_____
F. To what church does the candidate belong	_____	_____
G. Whether the candidate is married or single	_____	_____

5. In questioning an interviewee about his or her background, the interviewer should start with questions about:
 - (1) The type of organizational climate the interviewee works in best
 - (2) The interviewee's general educational background
 - (3) The interviewee's experience in performing each of the job duties
 - (4) Community or volunteer activities in which the interviewee may have gained experience that could be used on the job

6. The selecting supervisor may prepare for the interview by developing a set of questions that will be asked of every candidate. Why is it important that the selecting supervisor prepare the interview in advance (i.e., structure it)?
 - (1) The structured interview allows more questioning about personal characteristics than the unstructured interview
 - (2) The structured interview is more reliable than the unstructured interview because the same types of information on past behavior are collected from each candidate
 - (3) The format of the structured interview can allow the candidate to actually structure the interview, providing the supervisor with information on how the candidate will operate on the job
 - (4) The structured interview can be considered more accurate because the selecting supervisor conducts the interview in the manner in which he or she is the most comfortable

7. The purpose of the selection interview is:
 - (1) Determine which of the candidates has the personal characteristics which will best fit the style of the work group
 - (2) Determine the average candidate, one not overqualified or underqualified, who will be most satisfied with the job and successful in fitting into the work group
 - (3) Determine which candidate has the best combination of knowledge, skills, and abilities to perform the job effectively
 - (4) Determine from objective information (such as educational level and background, grade point average) which candidate will have the greatest potential to develop in the job

8. _____'s selection process differs from that of the rest of the Federal service in what way?
 - (1) _____ uses civil service tests and scored application blanks to a greater degree than the rest of the Federal service
 - (2) _____ requires the candidate to complete more application forms because of its unique public service functions
 - (3) _____ supervisors have more responsibility for selecting their subordinates than do most government supervisors
 - (4) _____ requires a unique labor pool because of the diversity of positions filled

9. Generally, _____ policy is to promote or transfer from within _____ before hiring from outside. Which of the following is a step in the external selection process but not in the internal selection process?
 - (1) Develop a job description for the vacant position
 - (2) Make a final selection decision from the list of those qualified
 - (3) Consider _____ when selecting candidates to interview
 - (4) Interview candidates

10. The most important area to cover in the employee orientation is:
 - (1) ensuring that the employee understands the duties of the job
 - (2) determining and scheduling training needed for new employees
 - (3) explaining the office rules and routines
 - (4) providing the employee with policies/procedures/reference materials to study

11. What is the function of rapport in an interview?
 - (1) To establish a trusting relationship with the interviewee so that more information is provided during the interview
 - (2) To make sure the interviewee likes the selecting supervisor
 - (3) To make it clear that the supervisor is in control of the interview
 - (4) To give the impression of sincere interest in the interviewee so he or she will want to work for you if selected

MANAGING INDIVIDUAL PERFORMANCE

1. The formal employee performance appraisal and the day to day supervision of an employee:
 - (1) should be kept separate because the two methods evaluate performance for different purposes
 - (2) are linked because the day to day supervision is the result of the formal appraisal process
 - (3) are linked because the formal appraisal is the mechanism to summarize and document the day to day supervision
 - (4) are different because the formal appraisal requires the supervisor to take an active role while day to day supervision requires the supervisor to take a passive role.

2. Formally appraising and documenting the performance is an important step in managing an employee's performance. Which of the following is not true about the formal performance appraisal?
 - (1) The formal performance appraisal is included in the employee's Personal History Record (PHR)
 - (2) The formal performance appraisal can document any progressive procedures the supervisor has had to follow
 - (3) The formal performance appraisal uses a system primarily based on traits such as "initiative" and "leadership"
 - (4) The formal appraisal should include information which had already been communicated to the employee before the appraisal meeting took place.

3. It is the responsibility of the supervisor to monitor an employee's performance and look for symptoms of a job performance problem. Which of the following would probably not be considered a symptom of a job performance problem?
 - (1) Leaving the work area more than necessary (e.g., frequent trips to the water fountain and bathroom)
 - (2) Calling in sick the day after the employee's own birthday party
 - (3) Increased difficulty in handling complex situation
 - (4) Uneven work patterns including high and low periods of productivity

4. Which one of the following is true about feedback (telling the employee how well he or she is performing on the task)?
- (1) Feedback should not be given immediately because it could disrupt the employee's work performance; the supervisor should wait until a more appropriate time
 - (2) The supervisor should avoid trying to "shape" an employee's behavior because the employee may perceive that the supervisor is manipulating them
 - (3) Negative feedback should be communicated to the employee even though it can be emotionally upsetting to both the "sender" and the "receiver"
 - (4) Feedback should be given in general terms so that the employee can interpret it in his or her own way and will therefore find it easier to use

STAFFING DOWN

1. Which of the following would not be considered a method the supervisor should use to avoid the need for a staff reduction?
- (1) Manage the unit's budget and expenditures and look for ways to reduce costs
 - (2) Suggest a hiring freeze
 - (3) Ask older employees to retire
 - (4) When a position becomes vacant through attrition, determine if the work of the position can be done without refilling the position
2. Which of the following is true about a dog off?
- (1) Dog offs are applicable to annual trades and labor employees
 - (2) The employee is dogged off for periods up to 60 days when there are temporary interruptions of work
 - (3) A dog off is an Adverse Action
 - (4) No written notice is required to dog off an employee
3. Which of the following is true about a layoff?
- (1) Layoffs are applicable to annual trades and labor employees
 - (2) A layoff may not last more than one year
 - (3) Employees who are laid off are on reduced pay status
 - (4) A layoff is unlike a dog off or furlough because employees are actually terminated from
4. Which of the following is not a retention factor in a situation?
- (1) Total time until retirement
 - (2) Tenure
 - (3) Eligibility for Veteran's Preference
 - (4) Total federal government service
5. When an employee has been RIF'd, he or she may take advantage of applicable benefits associated with RIFs. Which of the following is NOT a benefit associated with RIFs?
- (1) Use of the Outplacement Assistance Program
 - (2) Reassignment Rights
 - (3) Retraining in another occupation
 - (4) Severance Pay

LABOR-MANAGEMENT RELATIONS

1. As of May 1986, had General Agreements with the Trades and Labor Council for:
 - (1) construction employees
 - (2) annual operating and maintenance employment
 - (3) temporary operating, maintenance, and modification employment
 - (4) all of the above

 2. Supervisors are encouraged to communicate to their any matter they believe should be discussed at negotiations.
 - (1) True, in order to increase communication
 - (2) False, have responsibility for those matters

 3. Must a supervisor allow a salary policy employee who is not a group representative or job steward official time to attend a meeting sponsored only by a union?
 - (1) Yes, such meetings are conducive to Agency objectives
 - (2) No, the meeting must be a joint union-management meeting before attendance in pay status is considered

 4. Supervisors faced with a grievance should try every angle to work out a solution or to suppress the grievance, before advising the of the situation.
 - (1) True, supervisors have that responsibility
 - (2) False, the should be involved as soon as possible to prevent inconsistent policy application
-

PLEASE ESTIMATE THE NUMBER OF ITEMS (OUT OF A POSSIBLE 64)
THAT YOU BELIEVE YOU ANSWERED CORRECTLY ON THIS ASSESSMENT. _____ ITEMS

APPENDIX F
PRETEST ASSESSMENT ANSWERS

ORIENTATION TO SUPERVISION ASSESSMENT ANSWERS

YOU CAN FIND DETAILED INFORMATION ABOUT EACH OF THESE TOPICS IN THE SUPERVISOR'S HANDBOOK. ALSO, YOU WILL HAVE OPPORTUNITIES DURING ORIENTATION TO SUPERVISION TO ASK QUESTIONS ABOUT THESE TOPICS. PLEASE KEEP THIS ANSWER KEY CONFIDENTIAL SO THAT WE MAY CONTINUE TO USE IT TO EVALUATE THE EFFECTIVENESS OF TRAINING.

HEALTH AND SAFETY

1. A medical examination is required in all of the following cases except:

- (1) periodic monitoring exams for aircraft pilots
- (2) return to work after being assigned leave without pay for three weeks
- (3) transfer to an assignment involving exposure to ionizing radiation.
- (4) termination from a position involving exposure to a hazardous agent.

Medical examinations are covered in the section "Examinations and Other Evaluations", in the Health and Safety Chapter.

2. Indicate whether each of the following is the responsibility of the supervisor:

	YES	NO
(1) Terminating employees who do not work safely	•	_____
(2) Investigating accidents	•	_____
(3) Encouraging employees to report health and safety concerns only to the supervisor	_____	•
(4) Planning the job so it may be carried out safely	•	_____
(5) Handling all safety problems personally	_____	•
(6) Encouraging employee safety off the job	•	_____
(7) Checking the employee's equipment and tools	•	_____

See "Supervisor's Roles and Responsibilities" in the Health and Safety Chapter.

TRAINING AND DEVELOPMENT

1. Which of the following is not a type of training offered within _____ ?

- (1) Achievement motivation training
- (2) Technical training
- (3) Developmental training
- (4) Occupational qualifying training

See "Types of Training offered within _____" in the Training and Development Chapter.

2. Organizational development at _____ helps the supervisor to identify the developmental needs of the work group and to map out a strategy for meeting those needs. Which of the following would not be considered a form of organizational development?

- (1) using a new decision making approach that involves greater employee participation
- (2) implementing a "quality circle" to improve efficiency
- (3) using team building to improve cooperation and information sharing
- (4) developing a flexible cafeteria benefits plan for all employees in the workgroup

Organization Development is discussed in the chapter "Training and Development".

3. A subordinate needs to have a broader view of her organization. She is a highly skilled employee in her current position and has excellent service reviews. Which of the following should her supervisor recommend?

- (1) academic degree
- (2) rotation assignment
- (3) transfer to another position
- (4) technical training

See "Supervisor's Role" in the "Training and Development" chapter.

APPEALS AND GRIEVANCES

1. An Equal Employment Opportunity (EEO) investigator seeking an affidavit and documenting evidence should be:

- (1) cooperated with fully
- (2) referred to Equal Employment Staff
- (3) required to produce an "investigative record" stating what information is required.
- (4) referred to the

See "Investigation" in the section "Equal Opportunity Complaints", "Appeals and Grievances" chapter.

2. Employees who believe that they may have been treated unfairly or contrary to policy may formally complain:

- (1) only if the issue is covered under the negotiated agreements or involves safety or illegal discrimination
- (2) through a wide variety of sometimes overlapping channels.
- (3) only after making a "good faith" attempt to resolve the issue with the supervisor.
- (4) through the channel designated as "preferred and exclusive" for that type of complaint by

You can find the answer to this question in the section "Other Complaint Procedures" in the chapter "Appeals and Grievances".

3. Federal laws and regulations provide that any employer who is a member of a protected class may file a complaint if they suspect they have been discriminated against. Which of the following characteristics qualify a person as a protected group member?

	<u>Protected</u>	<u>Not Protected</u>
(1) Black	_____	_____
(2) White, not of Hispanic origin	_____	_____
(3) Protestant	_____	_____
(4) Jewish	_____	_____
(5) Male	_____	_____
(6) Female	_____	_____
(7) 35 years old	_____	_____
(8) 45 years old	_____	_____
(9) Physically Handicapped	_____	_____
(10) Mentally Handicapped	_____	_____
(11) Complainant in a prior EEO complaint	_____	_____
(12) Witness in a prior EEO complaint	_____	_____

The answers to these questions may be found in the section "Who May File a Complaint" in the "Appeals and Grievances" chapter.

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION

1. Equal Employment Opportunity:

- (1) is required only for employment decisions, not for organizational programs and activities
- (2) refers to the strategies developed to achieve Affirmative Action
- (3) is the right of all persons to work and advance on the basis of merit, ability, and potential
- (4) is the right of minorities and women to have preference in employment decisions

The answer to this question may be found in the section "Achieving Equal Employment Opportunity through Affirmative Action" in the "EEO" chapter.

2. goal is to overcome the effects of historical discrimination and to build a work force that reflects the demographic base of the This goal is to be achieved by what year?

- (1) 1988
- (2) 1990
- (3) 1992
- (4) 1994

The answer to this question may be found in the section "Achieving Equal Employment Opportunity through Affirmative Action" in the "EEO" chapter.

OTHER INFORMATION YOU SHOULD KNOW

1. How you should collect, access, handle, use, and dispose of information may be controlled by law, regulation, or other legal procedures. All of the following laws are relevant to information protection except the:

- (1) Equal Pay Act of 1965
- (2) Privacy Act
- (3) Freedom of Information Act
- (4) Equal Employment Opportunity Act

See "Information Protection" in the "Other Information You Should Know" chapter.

2. Personal notes by the supervisor concerning employee performance:

- (1) are explicitly prohibited by law in almost all situations and should not be kept.
- (2) are excluded from coverage by the Privacy Act and can legally be withheld from employees.
- (3) can be legally accessed by an employee if they are used in any decisions on personnel actions
- (4) can be legally accessed by an employee if they contain any work-related information.

This is discussed in the section "Personal Notes" in the "Other Information You Should Know" chapter.

3. A supervisor who follows proper security and control measures for Personal History Records (PHRs) would not:

- (1) remove the PHR from property
- (2) route the PHR through mail
- (3) allow an employee access to his/her own PHR
- (4) destroy the PHR immediately upon having made use of it.

See "Personal History Record (PHR)" in the "Other Information You Should Know" chapter.

4. Restoration entitlements for employees recovering from a job-related injury differ based upon:
- (1) the employment status (hourly, part time, or annual) of the individual's replacement.
 - (2) the employment status and amount of accrued service of the recovering employee.
 - (3) whether the individual remained on the payroll or received Office of Workmen's Compensation Programs compensation.
 - (4) the nature and timing of the employee's recovery.
- See "Job-related Injury" in the "Other Information You Should Know" chapter.
5. One of the hardest jobs has in complying with the is deciding who is a for purposes of the Which of the following is always a veteran under the Act?
- (1) An honorably separated veteran (not retired) who served on active duty during any war
 - (2) A widow or widower of a Veteran
 - (3) The mother of a Veteran who died under honorable conditions while on active duty in a war
 - (4) A retired veteran who retired above the rank of major or the equivalent
- See "Determination of Preference" in the "Other Information You Should Know" chapter.

WORK SCHEDULES AND LEAVE

1. When is it appropriate for a supervisor to grant an employee sick leave, annual leave, or leave without pay (at the employee's preference)?
- (1) When the employee, due to illness, is unable to perform job duties to the point that the supervisor is concerned about her safety.
 - (2) When the employee verbally requests leave without pay.
 - (3) When the employee is threatening to file a complaint.
 - (4) When the employee requests sick leave to take care of her spouse.
- See the "Leave" section in the chapter "Work Schedules and Leave".
2. Sick leave is correctly granted to an employee in all of the following cases except when:
- (1) pregnancy and confinement prevent the employee from working
 - (2) the employee received a dental examination
 - (3) the employee is required to care for a member of his or her immediate family who has an illness
 - (4) the employee would jeopardize the health of others by being present at work, because of exposure to a quarantinable communicable disease
- See "Sick Leave" in the "Work Schedules and Leave" chapter.

SELECTING THE RIGHT PERSON FOR THE JOB

1. What is the best way to handle conflict in the selection interview? For example, what is the best way to deal with a person who tries to dominate the interview?

- (1) Do not confront the candidate about the situation
- (2) Be persistent about stopping the behavior
- (3) Note this behavior on the interview form but do not mention it in the interview
- (4) Rule out this candidate because this type of behavior will probably transfer to the job

See "Other Tips for Effective Interviewing" section, specifically, "Demonstrate Control Under Certain Circumstances", in the "Selecting the Right Person for the Job" chapter.

2. What is an example of "active listening" by the interviewer during the selection interview?

- (1) Being an active participant in the interview by doing most of the talking
- (2) Showing that the message is heard (i.e., with a nod, eye contact, or vocal response)
- (3) Concentrating on what the candidate says to avoid having to summarize the information and checking it for accuracy with the candidate
- (4) Challenging any vague or ambiguous information provided by the candidate

See "Listen Actively" and "Ten Rules for Listening" in the "Selecting the Right Person for the Job" chapter.

3. The interviewer may intentionally or unintentionally introduce some form of bias into the selection interview which can result in the interviewer failing to evaluate in an objective manner. Which of the following is the more objective method for the supervisor to use in conducting the selection interview?

- (1) Judging each interviewee on the same basis
- (2) Comparing the interviewee to the immediately preceding applicant
- (3) Generalizing an overall impression of an interviewee from one piece of information gained in the interview
- (4) Generating expectations of an interviewee based on information obtained before or at the beginning of the interview

See "Key Issues Associated with Interviewing" in the "Selecting the Right Person for the Job" chapter.

4. Questions to the candidate in some of the following subject areas are considered fair preemployment inquiries and some are considered unfair because they may be discriminatory to some job candidates. For each subject, indicate whether it is a fair or unfair inquiry.

	FAIR	UNFAIR
A. Whether a candidate is over the age of 40	_____	_____
B. Whether a candidate has a handicap	_____	_____
C. Whether a candidate can lift 25 pounds in a job that requires such lifting	_____	_____
D. Whether the candidate was born overseas	_____	_____
E. Whether the candidate anticipates being pregnant in the next year	_____	_____
F. To what church does the candidate belong	_____	_____
G. Whether the candidate is married or single	_____	_____

See "Key Issues Associated with Interviewing" in the "Selecting the Right Person for the Job" chapter.

5. In questioning an interviewee about his or her background, the interviewer should start with questions about:

- (1) The type of organizational climate the interviewee works in best
- (2) The interviewee's general educational background
- (3) The interviewee's experience in performing each of the job duties
- (4) Community or volunteer activities in which the interviewee may have gained experience that could be used on the job

See "Conducting the Interview: Six Critical Steps" in the "Selecting the Right Person for the Job" chapter.

6. The selecting supervisor may prepare for the interview by developing a set of questions that will be asked of every candidate. Why is it important that the selecting supervisor prepare the interview in advance (i.e., structure it)?

- (1) The structured interview allows more questioning about personal characteristics than the unstructured interview
- (2) The structured interview is more reliable than the unstructured interview because the same types of information on past behavior are collected from each candidate
- (3) The format of the structured interview can allow the candidate to actually structure the interview, providing the supervisor with information on how the candidate will operate on the job
- (4) The structured interview can be considered more accurate because the selecting supervisor conducts the interview in the manner in which he or she is the most comfortable

See "The Structured Interview Form: An Integral Part of Your Structured Selection Process" in the "Selecting the Right Person for the Job" chapter.

7. The purpose of the selection interview is:

- (1) Determine which of the candidates has the personal characteristics which will best fit the style of the work group
- (2) Determine the average candidate, one not overqualified or underqualified, who will be most satisfied with the job and successful in fitting into the work group
- (3) Determine which candidate has the best combination of knowledge, skills, and abilities to perform the job effectively
- (4) Determine from objective information (such as educational level and background, grade point average) which candidate will have the greatest potential to develop in the job

See "Purposes of the Selection Interview" in the "Selecting the Right Person for the Job" chapter.

8. selection process differs from that of the rest of the in what way?

- (1) uses civil service tests and scored application blanks to a greater degree than the rest of the Federal service
- (2) requires the candidate to complete more application forms because of its unique public service functions
- (3) supervisors have more responsibility for selecting their subordinates than do most government supervisors
- (4) requires a unique labor pool because of the diversity of positions filled

See the Introduction of the "Selecting the Right Person for the Job" chapter.

9. Generally, _____ policy is to promote or transfer from within _____ before hiring from outside. Which of the following is a step in the external selection process but not in the internal selection process?

- (1) Develop a job description for the vacant position
- (2) Make a final selection decision from the list of those qualified
- (3) Consider _____ when selecting candidates to interview
- (4) Interview candidates

See "Staffing From Within" and "Hiring From Outside" in the "Selecting the Right Person for the Job" chapter.

10. The most important area to cover in the employee orientation is:

- (1) ensuring that the employee understands the duties of the job
- (2) determining and scheduling training needed for new employees
- (3) explaining the office rules and routines
- (4) providing the employee with _____ policies/procedures/reference materials to study

See "Orientating the New Employee" in the "Selecting the Right Person for the Job" chapter.

11. What is the function of rapport in an interview?

- (1) To establish a trusting relationship with the interviewee so that more information is provided during the interview
- (2) To make sure the interviewee likes the selecting supervisor
- (3) To make it clear that the supervisor is in control of the interview
- (4) To give the impression of sincere interest in the interviewee so he or she will want to work for you if selected

See "Steps For Effective Interviewing" and "Establish Rapport" in the "Selecting the Right Person for the Job" chapter.

MANAGING INDIVIDUAL PERFORMANCE

1. The formal employee performance appraisal and the day to day supervision of an employee:

- (1) should be kept separate because the two methods evaluate performance for different purposes
- (2) are linked because the day to day supervision is the result of the formal appraisal process
- (3) are linked because the formal appraisal is the mechanism to summarize and document the day to day supervision
- (4) are different because the formal appraisal requires the supervisor to take an active role- while day to day supervision requires the supervisor to take a passive role.

See "Philosophy of Managing Performance" in the "Managing Individual Performance" chapter.

2. Formally appraising and documenting the performance is an important step in managing an employee's performance. Which of the following is not true about the formal performance appraisal?
- (1) The formal performance appraisal is included in the employee's Personal History Record (PHR)
 - (2) The formal performance appraisal can document any progressive procedures the supervisor has had to follow
 - (3) The formal performance appraisal uses a system primarily based on traits such as "initiative" and "leadership"
 - (4) The formal appraisal should include information which had already been communicated to the employee before the appraisal meeting took place.

See "Formally Appraise Performance" in the "Managing Individual Performance" chapter.

3. It is the responsibility of the supervisor to monitor an employee's performance and look for symptoms of a job performance problem. Which of the following would probably not be considered a symptom of a job performance problem?
- (1) Leaving the work area more than necessary (e.g., frequent trips to the water fountain and bathroom)
 - (2) Calling in sick the day after the employee's own birthday party
 - (3) Increased difficulty in handling complex situation
 - (4) Uneven work patterns including high and low periods of productivity

See "Use Progressive Procedures for Correcting Performance Problems" in the "Managing Individual Performance" chapter.

4. Which one of the following is true about feedback (telling the employee how well he or she is performing on the task)?
- (1) Feedback should not be given immediately because it could disrupt the employee's work performance; the supervisor should wait until a more appropriate time
 - (2) The supervisor should avoid trying to "shape" an employee's behavior because the employee may perceive that the supervisor is manipulating them
 - (3) Negative feedback should be communicated to the employee even though it can be emotionally upsetting to both the "sender" and the "receiver"
 - (4) Feedback should be given in general terms so that the employee can interpret it in his or her own way and will therefore find it easier to use

See "Informally Feedback the Performance Appraisal" in the "Managing Individual Performance" chapter.

STAFFING DOWN

1. Which of the following would not be considered a method the supervisor should use to avoid the need for a staff reduction?
- (1) Manage the unit's budget and expenditures and look for ways to reduce costs
 - (2) Suggest a hiring freeze
 - (3) Ask older employees to retire
 - (4) When a position becomes vacant through attrition, determine if the work of the position can be done without refilling the position

See "How to Avoid Mandatory Staff Reductions" in the "Staffing Down" chapter.

2. Which of the following is true about a dog off?

- (1) Dog offs are applicable to annual trades and labor employees
- (2) The employee is dogged off for periods up to 60 days when there are temporary interruptions of work
- (3) A dog off is an Adverse Action
- (4) No written notice is required to dog off an employee

See "Short-term Cutback Alternatives" in the "Staffing Down" chapter.

3. Which of the following is true about a layoff?

- (1) Layoffs are applicable to annual trades and labor employees
- (2) A layoff may not last more than one year
- (3) Employees who are laid off are on reduced pay status
- (4) A layoff is unlike a dog off or furlough because employees are actually terminated from

See "Long-term Cutback Alternatives" in the "Staffing Down" chapter.

4. Which of the following is not a retention factor in a RIF situation?

- (1) Total time until retirement
- (2) Tenure
- (3) Eligibility for
- (4) Total federal government service

See "Reduction in Force" in the "Staffing Down" chapter.

5. When an employee has been RIF'd, he or she may take advantage of applicable benefits associated with RIFs. Which of the following is NOT a benefit associated with RIFs?

- (1) Use of the Outplacement Assistance Program
- (2) Reassignment Rights
- (3) Retraining in another occupation
- (4) Severance Pay

See "Reduction in Force" in the "Staffing Down" chapter.

LABOR-MANAGEMENT RELATIONS

1. As of May 1986, _____ had General Agreements with the _____ Trades and Labor Council for:

- (1) construction employees
- (2) annual operating and maintenance employment
- (3) temporary operating, maintenance, and modification employment
- (4) all of the above

See the Introduction in the "Labor-Management Relations" chapter.

2. Supervisors are encouraged to communicate to their _____ any matter they believe should be discussed at negotiations.

- (1) True, in order to increase communication
- (2) False, _____ have responsibility for those matters

See "Negotiations" in the "Labor-Management Relations" chapter.

3. Must a supervisor allow a salary policy employee who is not a group representative or job steward official time to attend a meeting sponsored only by a union?
- (1) Yes, such meetings are conducive to Agency objectives
 - (2) No, the meeting must be a joint union-management meeting before attendance in pay status is considered

See "Employee Participatio in Union-Related Activities" in the "Labor-Management Relations" chapter.

4. Supervisors faced with a grievance should try every angle to work out a solution or to suppress the grievance, before advising the of the situation.
- (1) True, supervisors have that responsibility
 - (2) False, the should be involved as soon as possible to prevent inconsistent policy application

See "Grievances" in the "Labor-Management Relations" chapter.

APPENDIX G
ASSESSMENT RESULTS FORM

ASSESSMENT RESULTS

OVERALL

You answered _____ out of 64 questions correctly.

TOPICS (Incorrect answers marked with a v)

Health and Safety	1. _____	2(4). _____	
	2(1). _____	2(5). _____	
	2(2). _____	2(6). _____	
	2(3). _____	2(7). _____	_____ out of 8 correct
Training and Development	1. _____		
	2. _____		
	3. _____		_____ out of 3 correct
Appeals and Grievances	1. _____	3(6). _____	
	2. _____	3(7). _____	
	3(1). _____	3(8). _____	
	3(2). _____	3(9). _____	
	3(3). _____	3(10). _____	
	3(4). _____	3(11). _____	
	3(5). _____	3(12). _____	_____ out of 14 correct
Equal Employment Opportunity	1. _____		
	2. _____		_____ out of 2 correct
Other Information You Should Know	1. _____	4. _____	
	2. _____	5. _____	
	3. _____		_____ out of 5 correct
Work Schedules and Leave	1. _____		
	2. _____		_____ out of 2 correct
Selecting the Right Person for the Job	1. _____	4(f). _____	
	2. _____	4(g). _____	
	3. _____	5. _____	
	4(a). _____	6. _____	
	4(b). _____	7. _____	
	4(c). _____	8. _____	
	4(d). _____	9. _____	
	4(e). _____	10. _____	
		11. _____	_____ out of 17 correct
Managing Individual Performance	1. _____	3. _____	
	2. _____	4. _____	_____ out of 4 correct
Staffing Down	1. _____	4. _____	
	2. _____	5. _____	
	3. _____		_____ out of 5 correct
Labor-Management Relations	1. _____	3. _____	
	2. _____	4. _____	_____ out of 4 correct

APPENDIX H
POST-FEEDBACK QUESTIONNAIRE MEASURES

PARTICIPANT SURVEY .

Please estimate the number of items (out of a possible 64) that you will answer correctly on the posttest assessment you will complete after Orientation to Supervision. _____ ITEMS

Please rate your satisfaction with your performance on the assessment.

- | | |
|---------------------------|------------------------|
| (1) VERY DISSATISFIED | (5) SLIGHTLY SATISFIED |
| (2) DISSATISFIED | (6) SATISFIED |
| (3) SLIGHTLY DISSATISFIED | (7) VERY SATISFIED |
| (4) NEUTRAL | |

How satisfied would you be if you received the same score on the posttest assessment you will complete after Orientation to Supervision that you did on the assessment you already completed?

- | | |
|---------------------------|------------------------|
| (1) VERY DISSATISFIED | (5) SLIGHTLY SATISFIED |
| (2) DISSATISFIED | (6) SATISFIED |
| (3) SLIGHTLY DISSATISFIED | (7) VERY SATISFIED |
| (4) NEUTRAL | |

Your answers to the following questions will help us improve the effectiveness of Orientation to Supervision (OTS). Please circle the response that best corresponds to your agreement with each statement.

- | | |
|---|-------------------------|
| 1. I am knowledgeable of policies and procedures. | (1) (2) (3) (4) (5) (6) |
| 2. I could give accurate information to another person who asked me about policies and procedures. | (1) (2) (3) (4) (5) (6) |
| 3. The assessment covered the important areas in policies and procedures. | (1) (2) (3) (4) (5) (6) |
| 4. I believe my performance on the assessment was an accurate indicator of my knowledge in this area. | (1) (2) (3) (4) (5) (6) |
| 5. The knowledge that I gain in this training program will help me better perform my job. | (1) (2) (3) (4) (5) (6) |
| 6. I will try to learn as much as I can in OTS. | (1) (2) (3) (4) (5) (6) |
| 7. I am motivated to learn the material presented in OTS. | (1) (2) (3) (4) (5) (6) |
| 8. I will learn more of the material in OTS than other supervisors who attend the training program. | (1) (2) (3) (4) (5) (6) |
| 9. I am sure that I can gain valuable knowledge by attending OTS. | (1) (2) (3) (4) (5) (6) |
| 10. The knowledge that I gain in this training program may help further my career. | (1) (2) (3) (4) (5) (6) |
| 11. I am looking forward to attending OTS. | (1) (2) (3) (4) (5) (6) |
| 12. OTS will help me set standards for my performance as a supervisor. | (1) (2) (3) (4) (5) (6) |
| 13. Even if I don't learn as much as I'd like in OTS, the training will be a valuable experience. | (1) (2) (3) (4) (5) (6) |
| 14. If I have trouble understanding the material presented in OTS, I will try harder | (1) (2) (3) (4) (5) (6) |

STRONGLY DISAGREE
DISAGREE
SLIGHTLY DISAGREE
SLIGHTLY AGREE
AGREE
STRONGLY AGREE

So that we may combine your responses with those of other employees in the same training session, grade, and division, please indicate your social security number below. Your responses will be COMPLETELY CONFIDENTIAL, and only group results will be assessed.

SSN: _____

TO RETURN, FOLD OVER AND STAPLE ONCE

APPENDIX I
POSTTEST ASSESSMENT

ORIENTATION TO SUPERVISION - ASSESSMENT

PLEASE ANSWER THE QUESTIONS WITHOUT THE USE OF ANY REFERENCE MATERIAL. You may not know all the answers. However, you should still do your best to choose the correct answer. Circle the number of the response you think best answers the question.

Social Security Number _____

HEALTH AND SAFETY

1. Which of the following has as its primary responsibilities involving employees in health and safety matters and helping to maintain open channels of communication between employees and management on health and safety matters?

- (1) Radiological Health Staff
- (2) Public Safety Service
- (3) Health and Safety Committee
- (4) Occupational Safety and Health Administration

2. Indicate whether each of the following is the responsibility of the supervisor:

	YES	NO
✓(1) Checking the employee's equipment and tools	_____	_____
✓(2) Encouraging employee safety off the job	_____	_____
✓(3) Handling all safety problems personally	_____	_____
✓(4) Planning the job so it may be carried out safely	_____	_____
✓(5) Encouraging employees to report health and safety concerns only to the supervisor	_____	_____
✓(6) Investigating accidents	_____	_____
✓(7) Terminating employees who do not work safely	_____	_____

TRAINING AND DEVELOPMENT

1. A supervisor at _____ has an employee who is interested in changing jobs. The employee wants to be trained in a totally different area than he is now working and is willing to take a position with less pay or move to another location if necessary. Which type of training should the supervisor recommend for this employee?

- (1) achievement motivation training
- (2) technical training
- (3) developmental training
- (4) occupational qualifying training

2. In preparing for an _____ review session, a supervisor notices that a manager still has a low rating in oral communication after attending several training courses on communication skills. What step should the supervisor take first?

- (1) make a note to deny any more training requests until after the employee's performance improves
- (2) discuss the performance problem with the manager and determine the cause of it
- (3) check with the class instructors to get their perspective on the manager's performance in the training courses
- (4) schedule another training session for the manager as soon as possible and let the instructor of the course know that the manager needs extra attention

3. A supervisor has just received a request from a subordinate to attend a seminar offered by an outside organization. What should be the supervisor's first step?
- (1) check the budget to see if funds are available
 - (2) determine whether the seminar meets the employee's developmental needs
 - (3) determine what other seminars this employee has attended recently by checking the employee's Personal History Record (RHR)
 - (4) check to see if the employee has completed all tasks assigned

APPEALS AND GRIEVANCES

1. Retaliation against an employee who has filed a complaint is prohibited. Which of the following is not considered retaliation?
- (1) Objectively documenting the complaint in the employee's personnel record
 - (2) Considering the complaint in the "Other Elements of Service" section of an Employee Service Report
 - (3) Beginning documentation or monitoring of the employee's performance
 - (4) Evaluating and disciplining the employee by the same standards used in the past with other employees
2. Federal laws and regulations provide that any employee who is a member of a protected class may file a complaint if they suspect they have been discriminated against. Which of the following characteristics qualify a person as a protected group member?

	<u>PROTECTED</u>	<u>NOT PROTECTED</u>
--	------------------	----------------------

- | | | |
|---|-----|-----|
| ✓(1) Witness in a prior EEO complaint | ___ | ___ |
| ✓(2) Complainant in a prior EEO complaint | ___ | ___ |
| ✓(3) Mentally handicapped | ___ | ___ |
| ✓(4) Physically handicapped | ___ | ___ |
| ✓(5) 45 years old | ___ | ___ |
| ✓(6) 35 years old | ___ | ___ |
| ✓(7) Female | ___ | ___ |
| ✓(8) Male | ___ | ___ |
| ✓(9) Jewish | ___ | ___ |
| ✓(10) Protestant | ___ | ___ |
| ✓(11) White, not of Hispanic origin | ___ | ___ |
| ✓(12) Black | ___ | ___ |
3. Employees who disagree with the final handling of complaints about or reports of hazardous conditions should appeal to the
- (1) Department of Labor
 - (2) Board
 - (3) General Manager
 - (4) Designated Agency Safety and Health Official

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION

1. The supervisor's role in achieving equal employment opportunity includes all of the following except

- (1) establishing numerical goals and timetables for the purpose of eliminating underrepresentation.
- (2) conducting Equal Employment Opportunity training sessions for employees.
- (3) ensuring that handicapped persons are able to perform a job by making reasonable accommodation.
- (4) establishing a committee to identify problems in the hiring, promotion, and retention of underrepresented groups.

2. Affirmative Action is defined as

- (1) the right of all employees to work and advance on the basis of merit, ability, and potential.
- (2) a legal complaint against an employer because of discrimination in employment procedures on the basis of race, sex, or disability.
- (3) an active and positive process through which an organization seeks to achieve its goal of equal opportunity.
- (4) the determination that a particular class of minorities or women has fewer members than expected in view of that class's representation in the labor force for that job or level.

OTHER INFORMATION YOU SHOULD KNOW:

1. An employee's legal rights to information about him/herself in a system of records includes

- (1) the right to review the information but not to copy or alter it.
- (2) the right to review the information and correct any errors but not to copy it.
- (3) the right to review and copy the information and request correction of any error.
- (4) the right to review and copy the information, correct any errors, and to delete any information which the employee finds "personally objectionable or offensive."

2. "Public information" which may be disclosed without an employee's consent includes all of the following except the individual's

- (1) type of appointment.
- (2) dates of appointment.
- (3) date of birth unless he/she is over 60.
- (4) legal name if he/she routinely uses a different name.

3. Restoration rights entitle an employee, in certain specific situations, to return to his/her former position and to be treated as if he/she had not been absent from work. These rights apply to

- (1) nontemporary employees only.
- (2) Salary Policy and management employees and physicians only.
- (3) all employees with more than 1 year of accrued Federal service.
- (4) all employees who were involuntarily RIF'd.

4. The _____ requires that preference be given to eligible veterans

- (1) only in appointments and retentions
- (2) only during employment for purposes such as promotion, transfer, or reassignment
- (3) only among temporary and indefinite employees and not among permanent or prepermanent employees
- (4) in all personnel actions as long as merit and efficiency are not ignored.

5. may appeal to the if they

- (1) fail to get a promotion and a nonveteran does get one.
- (2) are suspended for more than 14 days.
- (3) are transferred.
- (4) object to the assignment of overtime.

WORK SCHEDULES AND LEAVE

1. Which one of the following is true about leave without pay (LWOP)?

- (1) LWOP can be used as discipline or punishment
- (2) The employee may verbally request LWOP
- (3) LWOP must be requested by the employee
- (4) LWOP is the same thing as a suspension

2. Sick leave is correctly granted to an employee in all of the following cases except when

- (1) pregnancy and confinement prevents the employee from working.
- (2) the employee receives a dental examination.
- (3) the employee is required to care for a member of his or her immediate family who has an illness.
- (4) the employee would jeopardize the health of others by being present at work, because of exposure to a quarantinable communicable disease.

SELECTING THE RIGHT PERSON FOR THE JOB

1. The interviewer may intentionally or unintentionally introduce some form of bias into the selection interview which can result in the interviewer failing to evaluate each candidate in an objective manner. Which of the following is the more objective method for the supervisor to use in conducting the selection interview?

- (1) Judging each interviewee on the same basis
- (2) Comparing the interviewee to the immediately preceding applicant
- (3) Generalizing an overall impression of an interviewee from one piece of information gained in the interview
- (4) Generating expectations of an interviewee based on information obtained before or at the beginning of the interview

2. Questions to the candidate in some of the following areas are considered fair preemployment inquiries and some are considered unfair because they may be discriminatory to some job candidates. For each subject, indicate whether it is a fair or an unfair inquiry.

	YES	NO
✓ (1) Whether a candidate is over the age of 40	—	—
✓ (2) Whether a candidate has a handicap	—	—
✓ (3) Whether the candidate can lift 25 pounds in a job requiring such lifting	—	—
✓ (4) Whether the candidate was born overseas	—	—
✓ (5) Whether the candidate anticipates being pregnant in the next year	—	—
✓ (6) To what church does the candidate belong	—	—
✓ (7) Whether the candidate is married or single	—	—

3. If the interviewee has not had direct experience or education in the areas that the vacant position requires, the supervisor should:
 - (1) Assess the interviewee's motivation to succeed on the job
 - (2) Assess the interviewee's overall educational level
 - (3) Ask the interviewee what related experience he/she has that could be transferred to the job
 - (4) Consider this interviewee as the least qualified of the candidate group
4. The selecting supervisor should be adequately prepared prior to the interview. Which of the following is not a crucial step in preparing for the interview?
 - (1) Identifying job requirements and necessary knowledge, skills, and abilities
 - (2) Determining which candidate appears to be the top candidate "on paper"
 - (3) Deciding on what information to impart during the interview
 - (4) Preparing the interview setting
5. The following are reasons a job interview is conducted instead of just assessing the best candidate "on paper". What is the main reason a job interview is conducted?
 - (1) To provide candidates with information about the nature of the job
 - (2) To assess the interpersonal skills of the candidates
 - (3) To ask detailed questions about the actual job duties performed in the past by the candidates
 - (4) To assess the work group's reactions to the candidates
6. After the selecting supervisor has ranked the duties of the vacant position by importance, the next step in the hiring process is to:
 - (1) Immediately eliminate candidates without good interpersonal skills since this is crucial for any job
 - (2) Examine candidate information as a whole, then make final rank orders of candidates based on overall duties of the job
 - (3) Immediately eliminate candidates who do not rate high on the most important duty or task of the job
 - (4) Examine candidate information and rank order candidates on each duty of the job, then progressively eliminate candidates based on that information
7. After the supervisor has chosen the top candidate for the job, he/she should document the decision by writing a summary justification statement of the reasons for choosing that candidate as the best qualified. Why is this an important step of the selection process?
 - (1) Job satisfaction will be higher because the candidate is positively reinforced (i.e., self-esteem increases) from knowing he or she is the top candidate for the job
 - (2) The candidate's first scheduled performance evaluation can be structured from the summary justification statement
 - (3) A dispute over the candidate's starting salary may be resolved by referring to the summary justification statement
 - (4) The summary justification statement becomes useful in case of a legal challenge to the selection decision
8. The _____ requires appointments, promotions, and transfers at _____ to be made on the basis of:
 - (1) equal employment opportunity
 - (2) status
 - (3) contract negotiations
 - (4) merit and efficiency

9. Which of the following is not a step in conducting an effective interview?
- (1) Set the agenda so that the interviewee knows how long the interview will last
 - (2) Introduce a slight level of discomfort in the candidate to encourage him/her to provide more information during the interview
 - (3) Answer any questions the candidate has about the job or candidly and honestly in order to give a realistic picture of the job
 - (4) Close the interview and do not let the candidate know how he or she did
10. Note-taking during the selection interview:
- (1) should be avoided because the interviewee perceives that the interviewer is not listening closely
 - (2) should be encouraged because the interviewee will tend to slant answers to areas in which the supervisor takes more notes, thereby resulting in the most valuable information being captured.
 - (3) should be encouraged because the interviewer needs a complete set of notes in order to decide whom to hire.
 - (4) should be avoided because the interviewer cannot write as fast as the interviewee speaks and this results in long periods of uncomfortable silence in the interview.

MANAGING INDIVIDUAL PERFORMANCE

1. The formal performance appraisal and the day to day supervision of an employee:
- (1) should be kept separate because the two methods evaluate performance for different purposes.
 - (2) are linked because the day to day supervision is the result of the formal appraisal process.
 - (3) are linked because the formal appraisal is the mechanism to summarize and document the day to day supervision.
 - (4) are different because the formal appraisal requires the supervisor to take an active role while day to day supervision requires the supervisor to take a passive role.
2. Which of the following is true about the informal appraisal process?
- (1) The work assigned to the employee must be evaluated frequently in terms of the performance expectations communicated to the employee
 - (2) The supervisor should use a notebook or diary to keep track of employee performance initially, then later communicate and document the performance appraisal during the formal meeting
 - (3) The informal appraisal process results in day to day feedback to the employee so negative feedback should be minimized to prevent job satisfaction from decreasing
 - (4) The supervisor should not change performance standards until after the formal performance appraisal because the change of standards may affect the informal evaluation of the employee
3. If an employee has a consistent performance problem that the supervisor has determined is not the result of unclear performance expectations, what is the next step the supervisor should take?
- (1) Issue an oral warning to the employee about the performance problem
 - (2) Issue a written warning to the employee about the performance problem
 - (3) Restructure the job so that the employee will be able to perform it
 - (4) Counsel the employee about the performance problem

4. Which of the following is true about merit awards in _____ system?

- (1) Lump sum merit awards are more reinforcing for employees than salary increases
- (2) Money is more rewarding than almost any other reinforcer if the employee sees the link between pay and performance
- (3) Merit award systems will usually cause performance to increase even if used incorrectly (i.e., meritorious performers get rewarded) because money will increase the job satisfaction of all rewarded
- (4) An employee who is receiving meritorious pay and who is still performing meritoriously should receive a salary increase.

STAFFING DOWN

1. Which of the following is true about the staffing down process?

- (1) Supervisors should not discuss a staff reduction with a subordinate until the subordinate is given a RIF notice
- (2) If a staff reduction is probable, a supervisor should immediately review and revise all job descriptions
- (3) The _____ should be contacted only if the supervisor has problems in planning and implementing the staff reduction
- (4) The supervisor should recommend cost-effective solutions or alternatives to staff reduction

2. Which of the following is true about a furlough?

- (1) Sudden equipment breakdown is a situation in which employees may be furloughed
- (2) Furloughed employees remain in pay status
- (3) A continuous furlough cannot exceed 22 days
- (4) A furlough of an employee with _____ is always an Adverse Action

3. All of the following are possible reasons _____ would use a formal Reduction in Force (RIF) procedure except:

- (1) shortage of funds.
- (2) an increasing proportion of veterans in the workforce.
- (3) reorganization.
- (4) need to make a place for an employee exercising reemployment or restoration rights.

4. All of the following statements about competitive levels are true except:

- (1) all jobs in a competitive level allow interchange of employees without loss of productivity.
- (2) different job titles can be put together in one competitive level.
- (3) employees with the same job title and at the same schedule and grade level may be assigned to different competitive levels.
- (4) when setting competitive levels, it is important to research thoroughly the qualifications of the employees involved.

5. An employee who is RIF'd:

- (1) is probably an employee who has a year or more of current, continuous service.
- (2) is given written notice of not less than 30 days in advance of the effective date.
- (3) is placed in retention subgroup "AD" if he or she is a 10% compensably disabled veteran.
- (4) may not appeal to the Merit Systems Protection Board unless he or she is a veteran.

LABOR-MANAGEMENT RELATIONS

1. Which of the following was not specifically permitted by the _____ of _____ ?
 - (1) Defining the duties of _____ employees without regard to civil service laws.
 - (2) Appointing people on the basis of merit and efficiency.
 - (3) Fixing the wages of _____ employees.
 - (4) Employees organizing and dealing with management through representatives they choose.

2. During what time period did _____ recognize individual American Federation of Labor (AFL, later AFL-CIO) craft unions to represent employees in defined bargaining units?
 - (1) early 1930's (1933)
 - (2) mid 1930's (1934-1936)
 - (3) late 1930's (1937-1939)
 - (4) early 1940's (1940-1942)

3. Negotiations with the _____ Trades and Labor Council and the Salary Policy Employee Panel are usually at the beginning of what months?
 - (1) September; October
 - (2) October; December
 - (3) September; December
 - (4) December; September

4. How many employee representatives of a salary policy organization may be granted official time to assist employees in complaints, serve as a channel of communication between supervisors and employees, and assist in the investigation and presentation of formal grievances?
 - (1) None
 - (2) One
 - (3) Two
 - (4) Three

VITA

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