

The Effects of Social Learning
Intervention Procedures On
Occupational Social Adjustment.

by

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CHAPTER I

Introduction

There is an increasing demand for the application of verified methods and strategies to enhance pro-social behavior of special needs students in vocational education. Work adjustment, vocational competency, employability, or job survival require more than vocational skills and the ability to make appropriate career decisions. Occupational social adjustment is frequently cited as a necessary, but underdeveloped, competency area for handicapped, disadvantaged, disabled, or delinquent adolescents (Bregman & Frey, 1976; Brolin & Kokaska, 1979; Brown & Kottler, 1979; Ellington, 1981; Friel & Holder, 1980; Halpern, 1979; Johnson, 1979; Krantz, 1971; Lee, 1976; Mathews, Wang, & Fawcett, 1981, 1982; Rosove, 1982; Woodbury & Pate, 1977). To acclimate special needs students to vocational training programs or to the reality of a job, validated strategies are necessary to enhance occupational social adjustment.

In the literature on work adjustment, the concept of occupational social adjustment has emerged within the last decade. Although there is no common definition of occupational social adjustment or consistent terminology to label it, there is some consistency in what constitutes the occupationally related social skills that differentiate levels of vocational competence. A number of social skills

have been identified to define the broader concept of work adjustment. For example, Oetting and Miller (1977a) conceptualize work adjustment within three broad groups of behaviors; each further divided into more specific levels. The groups include skills and attitudes to obtain a job, maintain a job, and to upgrade one's occupational level. In their definition of the levels within each group, social skills or attitudes are identified as pertinent prerequisites to master a particular level. Thus, social skills and social attitudes are used to define and further specify work adjustment.

Outside the specific area of work adjustment, many of the present techniques and strategies used in social skills training owe their "...historical roots to the pioneering clinical efforts of Wolpe and Lazarus on assertion training" (Bornstein, Bellack & Hersen, 1977, p. 183). The gradual development or refinement of social skills training has paralleled the development of social learning theory (i.e., Bandura, 1969, 1977b; Mischell, 1968, 1973; Rotter, 1954, 1972). Social skills training has expanded from therapy with long term, institutional, chronic, psychiatric patients (Pierce & Drasgow, 1968; Rathus & Ruppert, 1980) to: (a) alleviation of phobic behavior (Bandura, Jeffery & Gajodas, 1975; Thase & Moss, 1976); (b) assertion training with adults, college students and children (Kazdin, 1982; Rathus,

1973; Rathus & Ruppert, 1973); (c) heterosexual interactions (Galassi & Galassi, 1979); (d) social academic behaviors of students (Day, Fox, Shares, Lindeman & Stowikscek, 1983; Stephens, 1978, 1983); (e) structured learning therapy with adolescents (Goldstein, Sprafkin, Gershaw & Klein, 1980; Greenleaf, 1982; Hazel, Schumaker & Sherman, 1981); (f) independent living skills for the retarded (Reiter & Levi, 1980; Walls & Werner, 1977); (g) educational mainstreaming of various exceptionalities (Gresham, 1982) and; (h) to improve interview skills (Cissna & Carter, 1982; Hood, Lindsay & Brook, 1982). It should be noted that these examples of areas of social skills training are didactic in nature, employ similar techniques, and emphasize the learning of new adaptive interpersonal skills.

Need for the Research

Society's current social and economic awareness are influencing education to refocus some basic goals. There is a shift of focus from solely an academic preparation of our students to include preparation for an occupation. Career education, a term popularized by Sidney P. Marlan, U.S. Commissioner of Education in the early 1970's, reflects the concept that all education can and should be associated with the individual's future career (Harris & Grede, 1979).

In addition to the career education concept there has been a recent proliferation of legislation to facilitate the

career development and access to vocational programs for the handicapped, disadvantaged, and/or minority groups (including: Vocational Education Act of 1963 with amendments of 1968, 1976 & 1984; Education for All Handicapped Children Act (1975); Rehabilitation Act of 1973, particularly sections 502 and 504; Comprehensive Employment and Training Act (1978); and Job Training Partnership Act (1982)). Despite these legislative mandates there is still a tremendous need to develop and expand appropriate career development and vocational opportunities of these special needs groups (Griffith, 1980; Hakins & Vernon, 1977; Heady & Porter, 1981). Legislation can mandate that all citizens have access to appropriate training programs through non-discriminatory policies and practice; but, the harsh reality remains that most secondary and post-secondary vocational education institutions are not being used by many individuals with divergent handicaps or educational and/or economic disadvantages (Beamer, 1982; Halloran & Razeghi, 1981; Krantz, 1981; Office of Civil Rights, 1980).

Even more disturbing than the failure to mainstream many special needs groups of individuals into vocational training programs is the continuing high unemployment and underemployment of the handicapped, disabled, or disadvantaged (Bowe, 1980; Halloran & Razeghe, 1981). Further, competition for jobs in many occupations has

stiffened. This proves to be especially true in unskilled and semi-skilled operative and laborer occupations that have been major employers of special needs groups (Nardone, 1982). Occupational projections for the 1980's forecast limited job growth in labor intensive blue collar occupations with greatest growth in service occupations (Carey, 1981).

To be vocationally competent, employees must be able to demonstrate attitudes and behaviors congruent with the expectations of employers and co-workers (Krantz, 1971; Rosove, 1982). Unfortunately though, interpersonal adjustment difficulties are one of the common characteristics of special needs youth. Oetting and Miller (1977b) have identified two major barriers to the employment of the economically disadvantaged to include social-personal conflict and emotional-personal problems. Social adjustment problems are often cited as one of the major characteristics of emotionally disturbed, learning disabled and mildly retarded youth (Hallahan & Kauffman, 1978). Woodbury and Pate (1977) suggested that delinquents have difficulty in coping with personal-social problems. Work adjustment or the more specific topic of occupational interpersonal adjustment has major relevance to the career development of many special needs groups.

The following points summarize the preceding analysis:

- (a) Career education is likely to remain a key concept in education,
- (b) legislative mandates will continue to press for the expansion of the career development of special needs groups,
- (c) high unemployment and underemployment of special needs groups should remain an issue throughout the 1980's,
- and (d) occupational interpersonal adjustment is an important competency area for special needs youth.

As these events continue to develop, contemporary career development theories appear somewhat removed from the career programs and work adjustment strategies for diverse groups with special career needs.

Statement of the Problem

One poignant observation can be made about career development theory and special needs groups. Most current career development theories offer only vague notions of how the broad area of work adjustment relates to career development. Thus the traditional guidance and counseling efforts are primarily concerned with career selection, generally most relative to the needs of 'normal people' to help them through normal developmental hurdles (Goodyear, 1981; Hohenshil, 1982) and prove to be inadequate for many special needs individuals (Tiedeman, 1974). Work adjustment or the more specific topic of occupational interpersonal adjustment, has major relevance to the career development of

special needs groups. Presently, there is no common theoretical framework utilized to define the components of occupational social adjustment and how it relates to the career development of diverse groups.

There has also been little research to identify methods for promoting occupational social adjustment. The few studies that are available on occupational social skills training fail to provide: (a) common definitions of the techniques that encompass social skills training, (b) adequate designs to test the efficacy of isolated treatment components as opposed to the component's combined effects, (c) evaluations of the effects between cognitive verses environmental intervention procedures, and (4) consistent results between studies concerning the effectiveness of social skills training procedures on the employability of subjects.

A careful examination of the literature on work adjustment shows that most efforts to influence social skills important to work are quite diverse in approach. Many of the work adjustment training techniques currently used differ from social skills training techniques in the area of behavior therapy. Some authors fail to differentiate methods to influence occupational social skills from the methods to develop other competency areas included in work adjustment.

Essentially then, issues in work adjustment and career development include:

1. What are the definitional components of occupational social adjustment to be used in evaluating differing levels of occupational social adjustment?

2. What elements of behavioral or cognitive procedures are effective in promoting occupational social adjustment?

Purpose of the Study

Krumboltz, Mitchell and Jones (1978) provide a social learning theory analysis of career decision making. Krumboltz and Rude (1981) further explicate the career counselor's role within a social learning theory framework for promoting career decision making. These authors have expanded many of the conceptualizations of social learning theory as outlined by Bandura (1977b) and Rotter, Chance and Phares (1972) to the specific area of career selection. Within the literature on career development, there appears a limited focus of social learning theory to the topic of career selection. A need exists to expand social learning theory to other areas of career development such as work adjustment or, more specifically, to occupational social adjustment.

The social learning view of social skills training and of the various components necessary to evaluate interpersonal adjustment is an example of the use of a

theory of human behavior to facilitate the unity of diverse behavioral and cognitive techniques in the training and evaluation of interpersonal skills. In fact, Rotter (1975) defines social learning theory as a theory of human behavior that "...attempts to integrate...reinforcement theories on the one hand and the cognitive theories on the other" (p. 57). Unfortunately, there has been little empirical evidence to justify how multiple behavioral and/or cognitive procedures can be used most efficiently to promote occupational social adjustment.

Therefore, within the context of social learning theory, this study will attempt to isolate effective components of social learning training procedures from the behavior therapy literature and to evaluate their effectiveness in promoting the various components of occupational social adjustment of special needs adolescents. Specifically, this study will examine the following research questions:

1. Can vicarious social learning training procedures increase the occupational social adjustment of special needs adolescents?

2. Can a combination of vicarious and performance mastery social learning training procedures increase the occupational social adjustment of special needs adolescents?

3. Will vicarious training procedures versus a combination of vicarious and performance mastery training procedures differentially effect levels of occupational social adjustment?

4. If the social learning training procedures are indeed effective in increasing the levels of occupational social adjustment of special needs youth, will that adjustment be maintained over a six week follow-up period?

5. If the social learning training procedures are indeed effective in increasing the levels of occupational social adjustment of special needs youth, how are the three components of social adjustment--occupational social skills, efficacy expectations, and occupational social competence--related to various combinations of training procedures (i.e., vicarious verses a combination of vicarious and performance mastery training procedures)?

6. If indeed the social learning training procedures are effective in increasing the levels of occupational social adjustment of special needs youth, are those changes related to such covariates as age, youth supervisor, previous work experiences, amount of vocational training, or number of youth per supervisor?

Definitions

In the context of this study, the following definitions apply:

Occupational Social Adjustment

Occupational social adjustment is considered a term closely associated with a major concept of social learning theory. Bandura (1978) asserts that: "...from the social learning perspective, human functioning involves a continuous reciprocal interaction between behavioral, cognitive and environmental influences" (p. 345). It is assumed that this postulate, "reciprocal determinism", has major influence upon how occupational social adjustment is operationalized.

Continuing the three component analogy of human functioning, changes in occupational social adjustment resulting from social learning intervention procedures will require a multivariate analysis. Thus occupational social adjustment will be evaluated by an analysis of occupational social skills (behavior), the efficacy expectations relating to these skills (cognitive), and the judgements of occupational social competence by salient individuals (environmental).

Occupational Social Competence

Occupational social competence refers to an evaluative term used to describe an individual's social behaviors relating to the social features of a work situation. The aspects of occupational social competence include:

...the repertoire of learned verbal and nonverbal behaviors (i.e., social skills)--qualitatively determined by individuals' cognitive expectations, emotional responses, social perceptions, and genetic factors--by which individuals interact interpersonally and environmentally in the context of fulfilling the requirements or obligations of producing work. Such skills would be flexible and functional to the extent that salient individuals choose to judge the skills' appropriateness and productiveness to a specific work situation (Houff, 1982, p. 65).

In this study, operationally, occupational social competence refers to supervisors' estimations of the number of component behaviors of a skill a youth can successfully execute in a social work environment and the confidence the supervisors have in their predictions.

Occupational Social Skills

Occupational social skills are defined as task specific skills, made up of more specific component behaviors, that enable individuals to interact competently in a social work situation. In this study, operationally, occupational social skills refer to the social skills and their respective component behaviors as defined by the Occupational Skills Assessment Instrument (OSAI), Parts 5 through 9 (Mathews, Wang & Fawcett, 1980a). The social skills included in the

OSAI include: (a) accepting a suggestion from a supervisor, (b) accepting criticism from a supervisor, (c) providing constructive criticism, (d) explaining a problem to a supervisor, and (e) complimenting a co-worker on a job done well.

Efficacy Expectation

An efficacy expectation is considered one of the major concepts of social learning theory (Bandura, 1977a). Bandura defines an efficacy expectation as a "...conviction that one can successfully execute the behavior required to produce certain outcomes" (p. 193). In this study, efficacy expectation refers to each subjects' predicted proportion correct, or the number of component behaviors that they will successfully execute to produce the desired outcome of each analogue situation (i.e., parts 5 through 10) of the OSAI and the confidence each subject has in their prediction.

Social Learning Training Procedures

Social learning training procedures include a variety of techniques which for this study are specifically described in Appendix A. The modalities for training range from behavioral skills (i.e., goals of social skills training) to the inclusion of perceptual and cognitive determinants of behavior (i.e., cognitive training often includes broader goals including motoric performance as well as cognitive process factors). Table 1 displays the

Table 1

Social Learning Training Procedures
With Their Component Techniques

Social Learning Training Procedures		Component Techniques
Vicarious Training	Focused Instructions	Problem definition
		Discussion
		Coaching
	Modeling	Verbal coding
		Social persuasion
		Peer models
Performance Mastery Training	Behavior Rehearsal	Video replay
		Imagery
	Confirming Experiences	Narration
		Role play
		Video replay
		Feedback
	Reinforcement	
	Self-direct mastery	
	Reinforcement	
	Feedback	

organization and categorization of multiple social learning training procedures constituting the treatments for this study.

The component techniques in the far right column of Table 1 define the four broader procedures designated as: focused instructions, modeling, behavior rehearsal, and confirming experiences. These four procedures are frequently investigated topics in the behavior therapy literature. Focused instructions, modeling, behavior rehearsal, and confirming experiences are often associated with social skills training (Bellack & Hersen, 1979; Bornstein, et al., 1977; Curran, 1979; Gresham, 1981; Hazel, Schumaker & Sheldon-Wildgen, 1982; Schinke & Rose, 1976) or structured learning therapy (Goldstein, 1973; Goldstein, et al., 1980). Modeling and components of the focused instructions procedure have also been described as cognitive behavioral intervention procedures (Mahoney & Kazdin, 1979). Thus, the procedures under investigation in this study have been described as social learning training procedures to circumvent an unrelated and possibly distracting classification of procedures as either germane to reinforcement or cognitive theories.

The two terms to the far left of Table 1, vicarious training procedures and performance mastery training procedures, are used to differentiate the procedures and

techniques to their right. The categorization of procedures in this way differentiates procedures that rely on the client's observation and listening verses his/her actual practice of the skills to be learned. Others in the behavior therapy literature have made this distinction between procedures to evaluate their efficacy but have used diverse terminology to label such a classification (i.e., Bandura, Jeffrey & Gajods, 1975; Hersen, Eisler, Miller, Johnson & Pinkston, 1973; Kazdin, 1982; Lewis, 1974; McFall & Lillesand, 1971; Rathus, 1973; Thase & Moss, 1976).

Summary

Occupational interpersonal adjustment has major relevance to the career development of special needs youth. There is an increasing demand for the application of verified methods and strategies to enhance pro-social behavior related to the job situation. Social learning training procedures have proven effective in enhancing social behaviors in a variety of social context. The purpose of this study is to evaluate the effectiveness of social learning training procedures in promoting the occupational social adjustment of special needs adolescents.

In this chapter, the problem was presented in conjunction with the need for research, purpose of the study, research questions, and definition of terms. Chapter II contains a survey of related studies and literature

regarding social learning training and occupational socialization. Chapter III contains a methodological description of the study, including sampling procedures, instrumentation, and statistical procedures used for analyzing the data. The analysis of the data is provided in Chapter IV. Conclusions and recommendations for further research are provided in Chapter V.

CHAPTER II
Theoretical And Empirical Framework
Of The Study

Theory and research related to the present study are presented in this chapter. Following a brief introduction a review of the literature is presented in areas of Social Learning Theory (SLT), career development specifically related to occupational socialization, and social adjustment of special needs youth. Empirical support for the training procedures used in this study is also presented.

A basic assumption of this investigation is that there is a difference in the occupational social adjustment between special needs youth and youth operating in the mainstream of society. From this perspective a major concern of this study is the relationship between social learning training procedures and their effects upon the occupational social adjustment of special needs youth. Such an orientation would appear intuitively compatible to youth with both environmental and personal constraints that act to inhibit their occupational socialization.

SLT has provided a logical and empirically tested structure for the application of therapeutic events as well as the theoretical basis for the evaluation of methods and procedures. Person and situation variables and their interactions are considered the emphasis in studying human

behavior--whether it is adaptive or maladaptive behavior. Thus, this research is concerned with aspects of SLT which pertain to the evaluation of changes in human functioning; or specifically, with evaluating changes in occupational social adjustment within the perspective of reciprocal determinism (Bandura, 1977b).

The effects of social learning procedures (grouped as vicarious training procedures and combined vicarious plus performance mastery training procedures) on three components of the occupational social adjustment construct will be tested. The components to be evaluated include: (a) occupational social skills, (b) efficacy expectations related specifically to a social skill, and (c) occupational social competence related to a specific social skill.

SLT--Historical Developments and Concepts

Personality Theory

Prior to the 1950's, behavior theory was limited to stimulus-response variables in studies to explain human behavior. Personality theory was largely ignored by traditional behavior theorists. Additionally, the construct of personality, as developed by traditional state and trait theories, was incongruent with the new behavior therapies. With the advent of SLT, theorists began to integrate organismic variables into their studies but within the basic stimulus-response framework of early behavior theory

(Bandura, 1969; Lazarus, 1976; Mischel, 1968; Rotter, Chance & Phares, 1972).

Some social learning theorists became actively engaged in the development of a social learning model of personality theory. Rotter (1975), an early pioneer in the development of SLT, even suggested that SLT was a "...molar theory of personality that attempts to integrate diverse but significant trends in American Psychology--the stimulus-response or reinforcement theories on the one hand and the cognitive or field theories on the other" (p.57).

Throughout Rotter's development and expansion of Social Learning and Clinical Psychology (1954; 1971; 1973), he has developed basic postulates concerning SLT and personality. These basic assumptions include: (a) The unit of investigation of personality is the integration of the individual and his meaningful environment, (b) personality constructs are not dependent for explanation upon constructs in any other field, (c) behavior, as described by personality constructs, takes place in space and time, (d) not all behavior may be usefully described with personality constructs, (e) a person's experiences influence each other--personality has unity, (f) behavior has a directional aspect and may be said to be goal directed, and (g) the occurrence of a behavior of a person is determined not only by the nature of goals or reinforcements but also by the

person's expectancy that these goals will be achieved. These basic assumptions are reflected in a large amount of subsequent research and literature concerning human behavior.

The adequacy of the assumptions of global dispositions was questioned. Many social learning theorists advocated the abandonment of the traditional trait model by SLT and the hypothetical, static, inner state of the person (Bandura, 1969; Mischel, 1973; Phillips, 1978). Personality theory was not directed toward elaborate systems of constructs inferring causality explanations. Mischel (1968) explained that:

Trait and state theories look for stable response predispositions in persons as the generalized and enduring causes of their behavior. In contrast, social behavior theory seeks the determinants of behavior in the conditions that covary with the occurrence, maintenance and change of the behavior. (pp.149-150)

Mischel's own work and review of numerous studies on personality variables supported Rotter's contentions concerning the interrelatedness of personality and situational variables.

Mischel (1973) offers an organizational schema for the reconceptualization of personality. He describes personality in terms of five cognitive social learning person variables.

These person variables include: (a) competencies to generate diverse behaviors under appropriate conditions (social skills), (b) subjective values providing arousal (motivation), (c) encoding providing a categorization of events, (d) expectancies about outcomes, and (e) self-regulatory systems (rules and goals). The person variables are verifiable through an individual's use of symbols. Consistent with SLT the person variables are applied in the interactionists' view with environment and social variables.

With the advent of SLT and with the introduction of other major concepts induced by SLT (concepts which will be explained in forthcoming pages), structure is provided for understanding human functioning of individuals with diverse environmental backgrounds. Further, SLT provides a broad theory of human behavior which can be related to current career development theory; career development theory has been criticized for its lack of strong conceptual ties to broader theories of human behavior (Osipow, 1973).

Reciprocal Determinism

The interactionists' postulates of SLT between behavior, personal, and environmental variables are formalized and expanded by a process labeled reciprocal determinism (Bandura, 1977b; 1978). Bandura conceives SLT as a broad theory of human behavior based upon a continuous

reciprocal interaction between cognitive, behavioral and environmental determinants. Reciprocal determinism is explained in the sense of mutual action between events rather than in the narrower meaning of similar or opposite counteractions.

Prior to this conception, social learning theorists and other theorists that have attempted to incorporate both personal and environmental determinants usually depicted behavior as resulting from the joint influences of these two factors. This approach is usually represented as $B = f(P \leftrightarrow E)$, where B signifies behavior, P the person, and E the environment. In the social learning view of interaction, analyzed within the process of reciprocal determinism, Bandura depicts behavior, other personal factors, and environmental factors operating as interlocking determinants of each other ($B \overset{P}{\leftrightarrow} E$). Behavior is viewed as an interacting determinant, not simply an outcome of a person-situation interaction.

Broadly speaking, research directed to explain human behavior changed from that focused upon amorphous internal determinants (state-trait theories), focused upon detailed analysis of external influences (strict behavior theory), or that employing an unidirectional notion of behavior being a product of the interaction between persons and situations to that focused from the perspective of reciprocal determinism.

Social learning theorists increasingly focused research on how patterns of behaviors are acquired and how their expression continuously regulates and is regulated by the interplay of self-generated and external sources of influence. Such changes in theoretical perspectives added new paradigms to evaluate vicarious, symbolic, self-regulatory, and reinforcement process in psychological functioning. (Examples of such studies include: Bandura, 1978; Bandura, Adams, & Beyer, 1977; Bandura, Jeffery, & Gajodas, 1975; Hersen, Eisler, Miller, Johnson, & Pinkston, 1973; Kazdin, 1976; Kazdin, & Mascitelli, 1973; Lewis, 1974; McFall, & Lillesand, 1971; and Rathus, 1973.)

Self-efficacy

Self-efficacy is assigned a central role as one cognitive component influencing human functioning (Bandura, 1977a; Bandura, et al., 1977; Kazdin, 1982). An efficacy expectation is the confidence that a person has that he/she can successfully execute a behavioral skill required to produce certain results in a particular social situation. Bandura distinguishes self-efficacy from Rotter's generalized expectations or specific expectations (outcome expectations). An outcome expectation is a person's estimate that a given behavior or series of behaviors will lead to certain results. Bandura (1977b) asserts: "Outcome and efficacy expectations are differentiated because individuals

can come to believe that a particular course of action will produce certain outcomes but question whether they can perform those actions." (p.79)

Self-efficacy has been shown to have direct and practical implications in evaluating behavior change. Perceived self-efficacy influences whether an individual will try a behavioral skill or how long an individual will persist in trying to cope with a difficult social situation (Bandura, 1977a).

Social Competence and Maladaptive Behavior

Adaptive behavior, normal personality development, maladaptive behavior, and psychopathology are viewed to be governed by the same laws of learning. Most social learning theorists assert that personality variables are influenced to a great extent by learning and experience. The extent by which any individual is able to profit from social experience (i.e., develop social cognition) is tempered by aspects of development (Eisenberg & Harris, 1984). The principles of learning that influence personality development include: classical conditioning, operant reinforcement, social reinforcement, self-monitoring and observational learning (Bandura, 1977b).

Ladd and Mize (1982), operating from a cognitive-social learning perspective, identify effective social functioning to include: (a) social knowledge of specific behaviors and

their likely functions within interpersonal situations, (b) social proficiency or the ability to convert social knowledge into skillful social behaviors in interactive contexts, and (c) self-evaluation or the ability to accurately self-evaluate skill performance and performance-related outcomes to adjust behavior accordingly.

Comparing Ladd and Mize's concept of effective social functioning to Mischel's person variables and Bandura's concept of self-efficacy provides a broad social learning perspective of social competence. Both Mischel and Ladd and Mize differentiate social knowledge from social competence--the understanding of what to do as opposed to the skills to actually perform the behavior in the real situation. Mischel, unlike Bandura or Ladd and Mize, fails to differentiate outcome expectations from efficacy expectations. Finally though, Mischel specifies the importance of motivation as an important variable in human functioning. Thus, the person variables identified as important from a SLT perspective include: (a) knowledge of the skill, (b) knowledge of the rules and goals of the social situation, (c) skill competence to perform the skill, (d) self-efficacy or confidence to perform the skill, and (e) the motivation to interact adaptively in the social situation.

Although cognitive factors and other organismic

variables are seen to intervene to influence human behavior individuals behave in particular ways because of certain characteristics of the situation in which they are involved. From a SLT perspective, human beings are conceived as influential in determining their own behavior within the confines of person and environmental interactions.

Behavior Therapy

Much of the growth and development of SLT is concomitant to the evolution of behavior therapy. Traditional behavior therapy and the more cognitive-oriented behavior therapies that evolved after the advent of SLT are distinguishable in terms of the importance placed upon operant approaches and emphasis placed upon social education. Operant techniques are viewed as inadequate if used as the sole procedures to teach complex social behaviors. Michelson and Wood (1980) summarized these deficiencies to include:

1. Operant approaches are not efficient modalities for instructing individuals in complex behaviors.
2. Teaching complex social-interaction skills requires inclusion of cognitive aspects, using such techniques as modeling, rehearsal, and cognitive instruction.
3. Operant techniques do not typically involve the individual in the treatment process but subject him to external contingencies that escape his understanding.

This lack of involvement might lead to poor generalization.

4. Shaping, fading, and differential reinforcement all require behavioral approximations that may be time consuming and not suitable for certain varieties of socially disruptive behavior.

5. Operant techniques often ignore qualitative deficits that do not teach more appropriate means of social interaction and do not increase the amount of reinforcement the individual emits or elicits. (p.269)

The social learning view of behavior therapy expanded the therapeutic model to a social education context. Humans were no longer viewed to be driven by inner forces nor buffeted by environmental stimuli. Many authors viewed behavior therapy as a re-education process in a certain context of social competence. These views (Bellack, & Hersen, 1979; Bornstein, Bellack, & Hersen, 1977; Foreyt, & Rathjen, 1978; Gresham, 1981; L'Abale, 1980; Michelson, & Wood, 1980; Phillips, 1978; Rathjen, & Foreyt, 1980) are summarized in the following statements:

1. Social competence is interdependent upon the individual, the environmental situation--both physical and social--, and the repertoire of skills of the participants.

2. Social competency obtains maximal reinforcement from the social environment.

3. Socially adept individuals behave in ways that are both appropriate and effective.

4. Specific discrete verbal and nonverbal communication relays attitudes, emotions, and determines the adequacy of social behaviors.

5. Social adeptness is validated by each of the participants of a social situation--the interaction is interdependent and reciprocal in nature.

6. Social interaction involves qualitative as well as quantitative aspects.

7. Social skills dysfunctions are conceptualized to be dependent upon either skill deficits, performance deficits, and/or self-control deficits.

8. Specific social skill deficits and excesses can be identified, targeted, and remediated by training.

Behavior therapies focusing upon social competence and social education have been identified elsewhere as: assertiveness training (McFall, & Lillesand, 1971; Rathers, 1973), behavior therapy techniques (Lewis, 1974), social skills training (Bellack, & Hersen, 1979; Bornstein, et al., 1977; Curan, 1979), interpersonal skills training (Schinke, & Rose, 1976), cognitive behavior therapy (Mahoney, & Kazdin, 1979), structured learning therapy (Goldstein, 1973), coping skills training (West, Horan, & Games 1984),

problem-solving enrichment, communication training, and relationship enhancement (L'Abale, 1980).

A number of social training programs have been developed commercially such as ASSET: A Social Skill Program for Adolescents (Hazel, Schumaker, & Sheldon-Wildgen, 1981), Skill Streaming The Adolescent (Goldstein, Sprafkin, Gershaw, & Klein, 1980) and Social Skills in the Classroom (Stephens, 1983). Many of the social skills programs are based on the well-researched paradigm of social learning theory (Rathjen, 1984). The type of competencies targeted for training include a variety of compound abilities necessary for effective interpersonal functioning. The modalities targeted for social education range from strictly motoric to the inclusion of perceptual and cognitive process factors.

Empirical Support for Social Learning Training Procedures SLT Training Procedures

Social learning training procedures are often cited as a variety of techniques but typically consist of instructions, modeling, role playing and performance feedback (Goldstein, & Pentz, 1984). In a survey study of social skills training Bornstein and Bellack (1977) found the most active techniques to include: instructions, feedback, behavior rehearsal and modeling. Later, in a review of the literature Curran (1979) also identified

instructions, modeling, behavior rehearsal and feedback as indicative of social skills training. In addition though, Curran suggested that prompts, self-monitoring and in vivo practice to be commonly utilized techniques. In another review of the literature of social skills training, limited to adolescents, LeCroy (1983) also supports Curran's conceptualization of commonly utilized techniques. LeCroy identifies modeling (in vivo or symbolic), role playing, feedback, prompting, selecting goals, and behavioral assignments as the most common procedures of adolescent social skills training programs.

Social learning training procedures incorporate a number of procedures that have been empirically investigated with a wide range of subjects and training a variety of interpersonal skills (see Table 2.1). Many of the procedures owe much of their verification in assertion training studies with adults and adolescents; many authors consider assertion training to be a specialized area of social skills training (Bornstein, et al., 1977).

Another group of studies of various social learning training procedures have been conducted to evaluate their efficacy in reducing phobic behaviors in adults and children. Other uses of social learning training procedures have been evaluated in areas of teaching specific interpersonal skills to delinquents, interview skills to

Table 2.1

Empirical Support of Social Learning Training Procedures

Authors	Techniques	Subjects	Task(s)	Follow-up
Bandura, Adams & Beyer, 1977	vicarious modeling, practice, mastery	adult phobics	decrease phobic behavior	yes; diff. remained significant
Bandura, Jeffery & Gajodas, 1975	modeling, practice, mastery	adult phobics	decrease phobic behavior	yes; diff. remained significant
Fox, Massey, Duer, Ross & Wooten, 1979	focused instructions, modeling	alcoholics	vocational assertiveness	yes; diff. remained significant
Friel & Holder, 1980	discussion, modeling, rehearsal, homework (hw), feedback (fb)	economically disadvantaged youth	work coping skills	yes; lower dropout rate and higher employment
Greenleaf, 1982	modeling, rehearsal, feedback, hw	disruptive school age adolescents	helping others	yes; diff. remained significant
Hazel, et al. 1982	instructions, modeling, rehearsal, fb	delinquents	social and problem solving skills	yes; diff. remained significant

TABLE 2.1 (Continued)

Authors	Techniques	Subjects	Tasks	Follow-up
Heimberg, Cunningham, Stanley & Blank enberg, 1982	instructions, modeling, rehearsal, feedback	unemployed disadvantaged youth	interview training	no
Hersen, et al., 1973	instructions, modeling, practice	psychiatric patients	nonverbal assertive behaviors	no
Kazdin, 1976	modeling	non-assertive adults	assertive behavior	no
Kazdin, 1982	modeling, rehearsal	non-assertive adults	assertive behavior	yes; diff. remained significant
Kazdin & Mascitelli, 1982	modeling, rehearsal, homework	non-assertive adults	assertive behavior	yes; diff. remained significant
Lewis, 1974	modeling, practice	black children	reduce avoidance behavior	yes; diff. remained sig.
Mathews, 1984	practice feedback	unemployed adults	interview training	no
McFall & Lillesand, 1971	modeling, coaching rehearsal	non-assertive college students	assertive behavior	no

Table 2.1 (continued)

Authors	Techniques	Subjects	Task(s)	Follow-up
Pierce & Drasgow, 1969	practice, reinforce.	psychiatric inpatients	interpersonal relations	no
Rathus, 1973	modeling, practice	unassertive college women	assertive behavior	no
Schinke & Rose, 1976	instructions, modeling, rehearsal, practice, fb	unassertive adult behaviors	non-verbal assertive	yes; diff. remained significant
Spence & Marzillier, 1981	modeling, rehearsal, reinforce, hw	delinquents	non-verbal interpersonal beh.	yes; diff. remained significant
Thase & Moss, 1976	modeling, behavior rehearsal, fb	college students	reduce avoidance behaviors	no
Warrenfeltz, 1981	instructions role-playing	behavior disordered adolescents	vocationally oriented social skills	no
West, Horan, & Games, 1984	information cognitive role play practice relax. train.	acute care nurses	stress inoculation	yes; diff. remained significant

adolescents and work related coping skills to various groups of youth.

Some isolated procedures have been found effective in changing behavior. It is important to note though that none of the isolated procedure studies reviewed presented information on how well the skills instructed were maintained following treatment or if the skills generalized into better social adjustment into the community.

SLT Training Procedures and Avoidance Behaviors

A large number of the studies in Table 2.1 have demonstrated additional benefits in reducing avoidance behaviors (Bandura, et al., 1975; Lewis, 1974; Thase & Moss, 1976) and developing assertive behaviors (Fox, et al., 1979; Kazdin, 1982; McFall & Lillesand, 1973; Rathus, 1973; Schinke & Rose, 1976) by combining vicarious procedures (i.e., instructions, modeling or discussion) with overt performance procedures (i.e., practice, performance mastery, behavior rehearsal, self-directed mastery or homework). One of the more recent of these studies with nonassertive adults (Kazdin, 1982) found that combined covert modeling and overt rehearsal procedures led to: (a) significant improvements on self-report and behavioral measures of assertive skills, (b) greater improvements than either separate procedures alone, (c) gains that were maintained up to 8 months, and (d) gains were comparable to levels of an assertive validation sample.

From a series of studies on decreasing phobic behaviors Bandura (1978; Bandura, et al., 1975; 1977) supports the thesis that generalized, lasting changes in behavior and self-efficacy can best be achieved by participant methods. He also points out though that powerful induction procedures such as modeling and focused instructions would also most likely be needed to initially develop capabilities. Then by progressing through a graduated series of participant modeling, feedback, gradually removing external aids, and next finally using self-directed mastery, expectation of personal efficacy are strengthened and generalized (Bandura, 1977a).

SLT Training Procedures and Interpersonal Alternatives

Although most of the commercially developed psycho-educational programs utilize a combination of vicarious and participant methods, transfer of training gains have not been verified. These programs use modeling, behavior rehearsal, feedback, homework and social reinforcement to teach a wide variety of specific interpersonal skills to adults and adolescents. The programs identified as ASSET (Hazel, et al., 1981) and Skill Streaming the Adolescent (Goldstein, et al., 1980) instruct a series of skills designed to serve as alternatives to aggressive behaviors.

Evaluations of ASSET (Hazel, et al., 1982, 1983) and structured learning therapy utilized in Skill-Streaming the

Adolescent (Greenleaf, 1982) have demonstrated the various vicarious and performance mastery procedures to be effective for implementing alternative pro-social behaviors in adolescents' skill repertoires. These studies have relied on post-treatment skill acquisition measures. But Spence and Marzillier (1981) using these same procedures as a therapeutic package with adolescent male offenders conclude that such social skill programs require further verification of durability and generalization of training effects; the authors' evaluation of the generalization of training was not supported by staff perceptions of social competence. The longer term benefits and generalized effects of such programs are yet to be established (Goldstein, & Pentz, 1984; Rathjen, 1984).

SLT Training Procedures and Vocationally Related Social Skills

Social learning training procedures have also been used in various vocationally related areas--although their evaluation is incomplete. Focused instructions, discussion, modeling, feedback and coaching have been evaluated most extensively and judged to be effective in enhancing interview skills (Heimberg, et al., 1982; Hood, et al., 1982). Heimberg and others (1982) finding social skills training procedures effective in training interview skills in unemployed youth also suggest: "Further research on

methods of training...and extension of these procedures to other job-related concerns (e.g., conflict with co-workers) should be investigated." (p. 320)

Friel and Holder (1980) investigated the procedures including discussion, instructions, modeling, practice, homework and feedback and their effects upon multiple coping skills important to job success. The authors concluded that the effects of the combined procedures effected skill gains. Although skill gains were not evaluated following posttesting the training did contribute in part to higher employment rate six months following training.

Two studies, using multiple baseline single case designs across behaviors, show promising results in enhancing vocational interpersonal competency. One study, using modeling alone and modeling plus focused instructions with alcoholic adults, found assertive behaviors greatly enhanced with the addition of focused instructions to modeling (Fox, et al., 1979). Although changes in behaviors were maintained six months following treatment, generalization of treatment effects was not evaluated.

Warrenfeltz (1981), studying the joint effects of instructions, role playing and self-monitoring, found generalized increases in vocationally-oriented social skills for four behavior disordered adolescents in a residential program. Viewing the limited but promising results of both

vicarious and performance based social learning procedures in various areas of vocational adjustment an extension of these procedures to other job related concerns with other client populations seems warranted.

It is also important to point out that no study to date has directly compared vicarious social learning training procedures to a combination of vicarious and performance mastery training procedures in increasing occupational social skills: nor has any study evaluated the retention of occupational social skills trained by vicarious procedures compared to combined vicarious plus performance mastery training procedures.

Career Development and Occupational Socialization of
Special Needs Youth

Career Development: Theory

A number of individuals and groups of individuals have attempted to explain, predict, and understand aspects of career development systematically since the beginning of the twentieth century and the initial guidance efforts of Frank Parsons (1909). Several of the more notable attempts (for example: Crites, 1969; Ginzber, 1972; Holland, 1973; Roe, 1956) can be criticized for various general inadequacies of their theories. The most serious general criticisms of career development theory related to special needs individuals include:

1. Much of the focus of research is limited to a narrowly defined segment of the human population (Davidson, 1980; Osipow, 1973; Wortly & Amatea, 1982).

2. There is a lack of well-defined intervention strategies (Osipow, 1973) or strategies applicable to a limited portion of our society (McDavis & Parker, 1981; Pavlak & Kammer, 1985).

3. There is an emphasis upon descriptive objectives more so than an explanatory approach to career development (Krumboltz et al., 1978).

4. Career development theories often lack strong conceptual ties to broader theories of human behavior (Osipow, 1973).

5. Often theories limit their focus to the narrower topic of career selection rather than career development (Super, 1980).

6. Many career development theories focus upon an individual's influence upon his/her development rather than the broader interaction of individual, multiple environmental, and interpersonal factors (Krumboltz, Mitchell, & Jones, 1978; Lacy & Hendricks, 1980; Wortly & Amatea, 1982).

The inadequacies of the purely developmentalists predicting life-stage age-related patterns largely based upon white, middle class, male norms have generally ignored

contextual factors in adolescent and adult development. These factors have limited the applicability of much of career development theory to groups and individuals with atypical personal characteristics or from different social environments.

Wortly and Amatea (1982), reviewing numerous contemporary developmental theories, have identified assumptions of developmental theory that have important implications for career development. They suggest that any developmental theory promotes the view that there are identifiable changes that characterize different stages of a human's life course. The authors further explain though that developmental changes are not indiscret but are systematically interrelated. An individual's process of managing each life change is influenced by the quality of the management of previous developmental changes. Finally, current developmental theory holds that changes are not tied to biological aging per se, but to a complex of multiple environmental, interpersonal, and intrapsychic factors (a postulate closely resembling reciprocal determinism).

From this perspective career development is perceived as an integrated aspect of the broader developmental picture of the individual. Super's (1980) Life Span, Life Space approach to career development is an explicit example of such an approach to career development.

Super defines career as the combination and sequencing of roles played by an individual during the course of his/her lifetime. There are nine major roles including: child, student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner. The life-space concept is explained to be the roles any individual plays at various stages in their life. The principle theaters in which these roles are played are the: home, community, school and work place. Super (1980) further specifies a role as "...a set of expectations that others have of a person occupying a position" (p. 285), and defines roles in terms of both expectations and performance. Earlier performance of roles and adjustment to each major theater of the individual's life is related to later success and satisfaction.

Occupational Socialization

As explained by Super a major theater for socialization to take place is the work place. McCandless (1976) defines socialization as a "...behavioral term that refers, first, to the way children, youth, and adults behave with reference to other children, youth, and adults; and, second, how they function in the several social roles that are specified in families and communities" (p. 185). Role expectations for members of a society are created by society and act as standards of behavior for specific social situations. Within each role expectation there are critical task

accomplishments (Havighurst, 1972)--the individual's level of performance of these critical tasks are judged by the salient individuals in each social situation.

Socialization to work is properly viewed as a developmental process. An adolescent or young adult normally confronts more numerous and specifically critical tasks related to occupational socialization as the individual prepares for independence from parents. Bregman and Frey (1976) view work as an opportunity for individuals to confer adult status by providing an opportunity for an individual to learn occupational social norms. Moore considers the normative dimensions of occupations to include: (a) contractual rendering of services, (b) social interdependence (c) subordination to legitimate authority, and (d) competence--performance.

Whether identified as role expectations or occupational norms there are obviously skills, beyond the level of trade skills, which must be learned and performed if the worker is to perform satisfactorily. The importance of occupational socialization has been highlighted in the literature related to special needs.

Social Adjustment of the Disadvantaged

Topics related to occupational socialization are frequently mentioned when special needs groups are discussed in relation to work. Heady and Porter (1981) describe

occupational work adjustment as one of the areas of assistance required by the disadvantaged in rural areas. Mathew, Wang and Fawcett (1981) found lower levels of interpersonal skills in a group of unemployed adults when compared to a group of employed adults. Miskimins & Baker (1973) conclude from their investigation of self-concept of disadvantaged adults that: "Disadvantaged are characterized by higher than average general level of maladjustment and problems in relationships, and especially by high culture rejection, interpersonal cautiousness, aloofness, and exaggerated self-esteem." (p. 359)

In another investigation of the disadvantaged Oetting and Miller (1977b) developed a list of barriers to employment from a review of related literature and through consultation with employment personnel and disadvantaged clients in the Denver area. From this investigation the authors developed and administered a checklist to 409 economically disadvantaged persons. Oetting and Miller identified four clusters of barriers to employment. Emotional personal problems and social and personal conflict constituted two of the four areas identified. The authors further concluded that clusters of social and interpersonal conflicts for the most part generalize to various aspects of the disadvantaged clients' lives.

Summary

Social learning theory is a broad theory of human functioning which attempts to incorporate strict behavior theory with cognitive theories. Human behavior is viewed as a function of a continuous reciprocal interaction between cognitive, behavioral and environmental determinants. Within the perspective of SLT, behavior therapy expanded the therapeutic model to a social education context. Social learning techniques classified as vicarious procedures and performance mastery procedures have been evaluated with a wide range of subjects and training a variety of interpersonal skills. Although social learning training procedures have been used in various vocationally-related areas, their evaluation is incomplete. Socialization to work is viewed as a developmental process. Various authors view occupational socialization to be one important barrier for the employment of various special needs groups.

CHAPTER III

Methodology

The methodology utilized in this study is described in this chapter. Following a brief introduction information pertaining to subjects, settings, research design, including independent and dependent variables and measurement instruments, is presented. Procedures for the collection and analysis of data are also presented.

Each subject in this study participated in the Summer Youth Employment Program (SYEP) which provides work experience to disadvantaged and disadvantaged, handicapped youth. The youth worked at supervised job sites for approximately 25 hours each week.

The purpose of this research was to determine the effectiveness of two groups of treatments in increasing the occupational social adjustment of special needs youth. Disadvantaged youth participating in a SYEP were randomly assigned to one of two treatment conditions with two training groups for each treatment. A multifactor design with repeated measures--including pre-test, treatment, post-test, and six week follow-up test--was used to evaluate changes in the groups' levels of occupational social skills, efficacy expectations, and occupational social competence related to each respective social skill. A quasi-control group, randomly selected from SYEP youth, received the same

evaluation procedures as treatment groups at pre and post measurements. Thus a multifaceted assessment procedure was used to provide the data for an analysis of changes in occupational social adjustment due to treatments.

Prior to the beginning of treatment a multifaceted pre-test of each subject's social adjustment was conducted. Once treatment was initiated, two training groups met for a three hour training session each week--each receiving the same vicarious training procedures. Two other training groups met for a five and half hour training session each week--receiving both vicarious and performance mastery training procedures. Training sessions continued for five consecutive weeks. A different occupational social skill was trained each week and post-treatment testing was completed once weekly during the five weeks of treatment. A delayed post-test of each group's occupational social adjustment was conducted six weeks after treatment was terminated.

Subjects

Subjects for this investigation were forty youth employed by the SYEP for Planning District Six of the Augusta County Service Area of Virginia. Each youth was considered "Economically Disadvantaged" as defined in Section 4 (8) of the Job Training Partnership Act of 1982. A total of 125 youth were employed by the SYEP.

After each summer worker was matched to a specific job with one of the thirty-six cooperating agencies offering job sites, nine job sites were randomly selected. The thirty-one youth employed at these sites were asked to volunteer to participate in the study--every youth solicited volunteered to be included. Twenty-five of these youth (11 females and 14 males) remained at their summer jobs during the treatment and made up the experimental groups. The job sites employing the experimental subjects are identified with asterisks in Table 3.1.

Twenty youth were randomly selected from the SYEP participants. Fifteen of these youth (nine females and six males) volunteered to participate in the study and/or remained at their jobs for the entire summer. These youth made up the quasi-control group.

Settings

Work Settings

Youth were matched to worksites in the SYEP for Planning District Six of the Augusta County Service Area of Virginia. The selection of worksites was in compliance with the Comprehensive Employment and Training Act Requirements, Section 20--Code of Federal Regulations. The worksites recruited for the SYEP with each sites' summer job description are included in Table 3.1.

Table 3.1

Worksites for Summer Youth
Employment Program

Name of Organization	Number of Youth	Major Job Duties
Augusta County Fire Department	1	Equipment maintenance and custodial.
Augusta County Library	2	Categorizing and book repair.
Augusta County Parks and Recreation	3	Child recreation assistance, grounds maint.
Augusta County Schools*	10	Ground maintenance, painting, custodial.
Augusta Military Acad.*	9	Typing, custodial, grounds maintenance.
Community Child Care	1	Child care assistance
DeJarnette Center for Human Development	2	Laundry assistance, grounds maintenance.
District Home*	2	Custodial, grounds maintenance.
Effie Ann Johnson Day Care	1	Child care assistance.
Fishburne Military Academy	9	Grounds care, typing, custodial.
Food Bank	2	Stocking assistance.
Mary Baldwin College	5	Custodial, grounds care.
Natural Chimney* National Park	1	Grounds care, custodial.
Salvation Army	1	Pickup and delivery, grounds care, custodial.
Society for the Prevention of Cruelty to Animals	1	Animal care, custodial.
Staunton Circuit Court	1	Typing and office help.
Staunton Fine Arts	1	Typing, office assis.
Staunton Public Library	5	Categorizing, book repair, sewing.
Staunton School Board	4	Custodial, moving equipment, grounds care.
Staunton Recreation* Department	3	Child care assistance.
Staunton YMCA	3	Recreation assistance, custodial.
Staunton/Waynesboro* 70001	1	Custodial.
Stuart Hall	2	Custodial, grounds care.

Table 3.1 (continued)

Name of Organization	Number of Youth	Major Job Duties
SYEP	2	Data Collection, office assis, co-trainers.
U.S. Dept. of Forestry	3	Typing, forestry assis.
Va. Dept. of Forestry	1	Forestry assis.
Valley Vocational and Technical Center	6	Typing, office help, grounds care, custodial.
Va. Dept of Highways	1	Warehouse assistance.
Waynesboro Fire Dept.*	1	Custodial, equipment maintenance.
Waynesboro Parks and Recreation	2	Child care assistance.
Waynesboro Community* Hospital	4	Laundry assistance, custodial.
Waynesboro Public Library	6	Categorizing, book repair, office assis.
Waynesboro YMCA	3	Recreational assis. custodial.
Woodrow Wilson Rehab. Center	9	Custodial, office assis., grounds care.
Woodrow Wilson Birthplace	1	Grounds maintenance.
Waynesboro School Board	8	Custodial, grounds maintenance.

* Job sites employing experimental subjects.

Each worksite provided a Worksite Supervisor--a regular employee of the cooperating agency--that was present at the worksite at all times while any summer worker was working. In addition, the SYEP provided Youth Supervisors; each with the responsibility for coordinating and monitoring the work experiences of approximately ten youth. The Youth Supervisors also oriented each youth to the SYEP's purpose, their limits of authority and their job responsibilities.

Training Settings

Treatment for the experimental group and pre, post, and delayed post-testing for all subjects were conducted in classrooms convenient to summer workers' job sites. These classrooms were nearly identical; each located in four different schools but with adequate lighting and ventilation. In each classroom, green slate chalkboards cover one wall and one wall is made up almost entirely of windows. There are about 20 to 30 portable desks per room. Furnishings and equipment used for training purposes included video camera, tape deck, black and white monitor, seats for trainers and group participants, and chalkboard.

The trainer was an experienced counselor in working with handicapped or disadvantaged youth and in the utilization of social skills training techniques. The trainer's vitae is included in Appendix E.

Two co-trainers assisted the trainer. The co-trainers were selected from approximately 170 youth applicants for the SYEP. Selection of the co-trainers was accomplished through screening application forms, and references, interviews, and the Occupational Skills Assessment Instrument. The co-trainers' vitae are included in Appendix E. Each co-trainer participated in the treatments as role models to demonstrate a coping model effectively utilizing each occupational social skill. The co-trainers prepared and practiced skits and monitored the use of video equipment for each group session. Finally, each co-trainer assisted in data collection.

Procedures for Protection of Human Subjects

During registration for the SYEP and prior to collection of data from the subjects an informed consent letter (Appendix C) was explained to each subject and mailed to each parent or legal guardian of subjects under the age of 18. Subjects and parents of subjects were informed that the results of the study were to be used in a doctoral dissertation but that individual test scores would remain anonymous and only group data would be reported. In addition, parents and youth were assured that their refusal to provide consent would not result in the youth being denied participation in the SYEP.

Design

The vicarious procedure treatment groups (Trt 1) and vicarious plus performance procedure treatment groups (Trt 2) were formed by randomly assigning experimental youth to one of the two treatment conditions. Some matching was conducted to assure treatment group equality; criteria used to make treatment group alterations included numbers of school dropouts, enrollment in school programs for emotional disturbance, number of youth assigned to worksites, race and sex. Each treatment group was further divided into two training groups. Thus, there were four training groups of experimental subjects with two groups receiving Trt 1 and two groups receiving Trt 2. The group titles were all the same--Occupational Skills Training Class.

The quasi-control group participated in two, six hour career awareness training classes (see Appendix C) during the course of their summer employment--as did all the SYEP participants not receiving the treatment procedures.

Researcher bias was minimized by structuring the group format prior to the application of treatment. The co-trainers, the Youth Supervisors required to evaluate each youth's occupational social competence, and raters evaluating each subject's performance on the Occupational Social Skills Instrument were not aware of the research hypotheses of this study.

A 3 x 2 Factorial Design with Repeated Measures and a 2 x 3 Factorial Design with Repeated Measures (Winer, 1971, pp. 518-539) multifactor experiment was utilized to evaluate the effects of treatments. Treatment groups were observed under all levels of the measures of the dependent variables. Occupational social competence was not evaluated during the delayed post-test measure since the subjects were no longer employed when this observation was made. The quasi-control group was not administered a follow-up test. The layout of this design is shown in Table 3.2. Both Kirk (1968) and Winer (1971) have discussed the appropriateness of designs having repeated measures for investigations of rates of learning as a function of treatment effects.

Variables

A brief description of the independent and dependent variables is provided in Tables 3.3 and 3.4. The independent variables in Table 3.3 are classified as to whether they are metric or nonmetric and covariates or factors. Table 3.4 briefly outlines the dependent variables or the components of occupational social adjustment.

Independent Variables

Covariates. Prior to the start-up date of the SYEP and treatment, the first four variables were collected by Virginia Employment Commission Counselors processing applications and by the staff of the SYEP. These four

Table 3.2

Factorial Design With Repeated Measures

Treatment Groups	Sample	Pre-test (Measure 1)	Treatment	Post-test (Measure 2)	Time	Delayed Post (Measure 3)
Trt 1	n=11	OSAI OEE OSC	5 weeks Vicarious procedures	OSAI OEE OSC	6 weeks	OSAI OEE
Trt 2	n=14	OSAI OEE OSC	5 weeks Vicarious & Performance	OSAI OEE OSC	6 weeks	OSAI OEE
Quasi- Control Group	n=15	OSAI OEE OSC		OSAI OEE OSC		

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Table 3.3

Description of Independent Variables

Variable Description	Variable Type
X ₁ Age (months)	Independent/Metric/Covariate
X ₂ Past Work Experience	Independent/Metric/Covariate
X ₃ Past Vocat. Experience	Independent/Metric/Covariate
X ₄ Characteristic Worksite -number of supervisors -number of youth	Independent/Metric/Covariate
X ₅ Type of Treatment -Vicarious procedures -Vicarious and Performance procedures -Quasi-control	Independent/Nonmetric/Factor (Trt 1) (Trt 2) (QC)
X ₆ Order of Measure	Independent/Nonmetric/Factor

Table 3.4

Description of Dependent Variables Comprising
the Components of Occupational Social Adjustment

Variable	Description	Variable Type
X ₇	Occupational Social Skills -Accepting suggestion supervisor -Accepting criticism supervisor -Providing constructive criticism -Explaining problem to supervisor -Complimenting a co-worker	(osk) (osk 1) (osk 2) (osk 3) (osk 4) (osk 5) Metric
X ₈	Occupational Efficacy Expectation -Confidence in components of osk 1 -Confidence in components of osk 2 -Confidence in components of osk 3 -Confidence in components of osk 3 -Confidence in components of osk 4	(oe) (oe 1) (oe 2) (oe 3) (oe 4) (oe 5) Metric
X ₉	Occupational Social Competence -Confidence in components of osk 1 -Confidence in components of osk 2 -Confidence in components of osk 3 -Confidence in components of osk 4 -Confidence in components of osk 5	(osc) (osc 1) (osc 2) (osc 3) (osc 4) (osc 5) Metric

independent variables are represented by: variable one--age, variable two--past work experience, variable three--past vocational training, and variable four--characteristics of worksites. Variables one, two and three are converted to months for computational convenience.

Factors. The next three nonmetric independent variables are identified as factors. Treatment groups include: Trt 1 with eleven youth receiving vicarious training procedures; and Trt 2 with fourteen youth receiving both vicarious and performance training procedures. The type of treatment procedure is represented by variable four. Treatment subjects received three measures of the dependent variables throughout the study including pre-test, post-test, and delayed post-test. The quasi-control group received the same evaluation that treatment subjects received at pre-test and post-test. The dependent variables are measured in the same order throughout the three blocks of measures. This factor is identified as variable six--order of measure.

Dependent Variable

Occupational social skills--variable seven. The Occupational Skills Assessment Instrument (OSAI), Part 5 through 9, was administered to the treatment groups during the first week of the SYEP as a pre-test; the appropriate part re-administered once every week during the five weeks of treatment and again six weeks after treatment as a

delayed post-test. The purpose of the OSAI was to provide a behavioral measure of five occupational social skills judged to be critical to job success and maintenance. The OSAI consists of five role play situations in which a specific occupational social skill is appropriate for each situation. The subject was to respond to an analogue situation as if the situation was real. The subjects' responses to the analogue situations were videotaped. The OSAI is included in Appendix B.

Two raters, unaware of the purpose or procedures of the study, independently evaluated the subjects' performances on the OSAI with OSAI Behavior Checklists relevant to each occupational social skill. The tapes were rated in random order. Interobserver agreement was assessed by each rater independently re-evaluating a portion of each of the rater's observations. Interobserver agreement was measured by an item-by-item comparison of the scoring of the target behaviors for each subject. Total reliability was calculated by dividing the number of agreements by the number of disagreements multiplied by 100. Further, each rater was instructed in the use of the OSAI Behavior Checklist prior to observations of subjects' analogue situations.

The OSAI Behavior Checklists are designed in simple format with explicit behavioral definitions of target behaviors so that little training is necessary for reliable

observations. In fact, interobserver agreement of raters using the OSAI Behavior Checklists has ranged from 80% to 100% for all behavioral situations with an average of 94% reliability reported (Mathews, et al., 1980, 1981, & 1982). The raters utilized in this study received instructions and practice using the checklists until interater agreement averaged 90% between the two raters. Interobserver agreement ranged from 86% to 100% for all behavioral situations similarly observed by raters with an average of 96% agreement.

Each of the five occupational social skills (Parts 5 through 10 of the OSAI) consist of a number of component target behaviors that define the social skill. The number of component behaviors for the five social skills range from three to nine. Each occupational social skill is defined by behavioral descriptions of each component behavior on the OSAI Behavior Checklist relevant to that specific social skill. There are a total of 31 component target behaviors for the five occupational social skills on the OSAI. Scores for each social skill are reported as a percentage of observed component behaviors of the total number of component behaviors for that particular occupational social skill.

Validity of the OSAI has been discussed and demonstrated in various studies (i.e., Mathews, et al.,

1980, 1981, 1982; Mathews & Fawcett, in press). The authors used a five stage behavioral analytic model (Goldfried & D'Zurilla, 1969) for developing and validating the OSAI. As such, the behavioral analytic method of the OSAI's development attests to the content validity of the instrument. For example, the OSAI's content behaviors were judged to be socially valid by a group of expert judges.

The OSAI Behavior Checklists have shown group behavior to be consistent with theoretical predictions. Theory predicts that Learning Disabled individuals manifest social deficits (Alley & Deshler, 1979; Bryan & Bryan, 1977; Cook, 1979; Faford & Haubrich, 1981; Kronick, 1978). Mathews and others (1982) observed deficits in occupational social skills of Learning Disabled adolescents specifically related to accepting criticism from an employer, providing constructive criticism to a co-worker, and explaining a problem to a supervisor.

Occupational efficacy expectation (OEE)--variable eight. A checklist administered by a co-trainer, designed to assess self-efficacy, asked subjects whether they could successfully execute the component behaviors required for each occupational social skill included in the OSAI, and, the degree of confidence for those items to which affirmative responses were made (cf. Bandura, 1977a). The confidence, strength of the expectation, was rated on a

100-point probability scale, ranging in 10-point intervals, from high uncertainty to complete certitude (Bandura, 1977a). Efficacy expectations were measured after the administration of the OSAI pre-test, after the OSAI post-test administered within a week after each treatment was concluded, and after completing the OSAI six week delayed post-test. A SYEP co-trainer was trained in administering the OEE Checklist. The OEE Checklist is included in Appendix B.

The validity of the self-efficacy checklist procedure described for this study has been demonstrated with different samples and with diverse criterion behaviors. Self-efficacy proved to be consistently accurate as a predictor of performance on tasks varying in difficulty by subjects with different levels of phobic behaviors (Bandura, Adams & Beyer, 1977). Bandura (1977a) demonstrated a high congruence between self-efficacy and performance on various behavioral tasks. Kazdin's investigations (1982) evaluating the separate and combined effects of covert modeling and overt rehearsal as a means of developing assertive behavior demonstrated that treatment groups improved in the strength of their self-efficacy. The self-efficacy questionnaire has shown individual behavior to be consistent with theoretical predictions that performance accomplishments are most influential upon efficacy information (Bandura, 1977;

Bandura et al., 1977; Bandura, Jeffery & Gajodos, 1973; Kazdin, 1982).

Occupational social competence (OSC)--variable 9. The efficacy expectation checklist was adapted specifically for this study to assess OSC. Each subject employee's SYEP Youth Supervisor was asked to evaluate the youth under their supervision. A co-trainer asked supervisors whether subjects could successfully execute the component behaviors required for each occupational social skill included in the OSAI and the degree of confidence for those items to which affirmative responses were made.

Prior to treatment, but following the first two weeks of summer work, OSC Checklists were completed by Youth Supervisors. The appropriate part of the checklist was re-administered, once every week during the five weeks of treatment, to each Youth Supervisor.

Analysis of the Data

The response measures for occupational social adjustment were expressed in percentages. The response measures for the multiple measures described in Table 3.4 included: (a) the component behavior percentages for each occupational social skill on the OSAI Behavior Checklist (osk), (b) the subjects' expressed percentage confidence scores for each occupational social skill on the OEE Checklist (oe), and (c) the Youth Supervisors' expressed

percentage confidence scores for subjects for each occupational social skill on the OSC Checklist (osc).

Repeated measures multivariate analysis of covariance was conducted for all treatments through the multiple response measures of occupational social adjustment. Variables one through four--age, past work experience, past vocational experience, and characteristics of worksites--constituted the covariates in each analysis. The pre-test, post-test, and delayed post-test measures include the two treatment groups for one analysis. The OSC Checklist was not included during the delayed post measure since the subjects were not employed and the Youth Supervisors had no opportunity for observation of subjects in a work environment. Due to procedural measurement difficulties (which are explained in detail in Chapter IV) OEE data was not included in the analysis of delayed post-test measure. The quasi-control group was not administered a follow-up test. Thus, the pre-test and post-test measures included the two treatment groups and the quasi-control group for another analysis.

Summary

This chapter discussed the research design, the procedures used to select the sample, and the collection and analysis of data. Participants were selected by randomly selecting nine job sites out of the 36 in the SYEP. The

youth at these nine job sites volunteered to participate in the study and were randomly assigned to one of the two experimental groups. Youth were randomly selected from the remaining 27 SYEP job sites and were assigned to the quasi-control group. The independent and dependent variables of this study were described and the instruments used to measure the three dependent variables were reviewed.

CHAPTER IV

Results and Discussion

This chapter presents the hypotheses and results of this study. The purpose of this research was to evaluate the effectiveness of social learning training procedures -- grouped as vicarious training procedures and vicarious plus performance mastery training procedures -- used to enhance disadvantaged adolescents' occupational social competence. This was accomplished by examining pre-, post-, and delayed-posttreatment test data.

The questions evaluated by this investigation included:

1. Can vicarious social learning training procedures increase the occupational social adjustment of special needs adolescents?

2. Can a combination of vicarious and performance mastery social learning training procedures increase the occupational social adjustment of special needs adolescents?

3. Can vicarious training procedures versus a combination of vicarious and performance mastery training procedures differentially effect levels of occupational social adjustment?

4. If the social learning training procedures were indeed effective in increasing the levels of occupational social adjustment of special needs youth, was that adjustment maintained over a six week follow-up period?

5. If the social learning training procedures were indeed effective in increasing the levels of occupational social adjustment of special needs youth, how were the three components of social adjustment -- occupational social skills, efficacy expectations, and occupational social competence -- related to various combinations of training procedures (i.e., vicarious versus a combination of vicarious and performance mastery training procedures)?

6. If indeed there are changes in pre- and posttreatment levels of occupational social adjustment of special needs youth, are those changes related to such covariates as age, youth supervisor, previous work experiences, amount of vocational training, or number of youth per supervisor?

Originally, this study was to include a total of 49 subjects assigned to either the experimental or control groups. One youth in the quasi-control group did not volunteer to participate. One youth in the vicarious training group became ill and was unable to complete the study. Seven other participants either quit their summer jobs or were fired from their jobsites before the completion of the study. The youth comprising the experimental and quasi-control groups are presented in Table 4.1. This table contains the number of youth in each group, the subjects' mean age, standard deviation, each group's sex ratio, and race ratio. Examination of this information revealed

Table 4.1

Demographic Data Across Experimental
And Quasi-Control Groups

Group	N		Age*	Sex Ratio	Race Ratio
				M/F	Cauc/Other
Vicarious	11	<u>M</u>	213.45	7/4	7/4
		<u>SD</u>	18.78		
Vicarious plus Perform	14	<u>M</u>	216.57	7/7	8/6
		<u>SD</u>	16.84		
Quasi- Control	18	<u>M</u>	216.53	7/8	10/5
		<u>SD</u>	18.47		

* Mean age and standard deviation expressed in months.

similarity between experimental and quasi-control groups prior to treatment.

Demographic data used in preliminary analyses of the 40 subjects on which posttreatment treatment data were available are presented in Table 4.2. This table contains mean ages, previous work experience, amount of vocational training, number of worksite supervisors per youth worker with their corresponding standard deviations. Also included is information identifying the youth supervisors for each group. Pre- and posttreatment test findings on the 40 subjects presented in Table 4.2 were used to test hypotheses one and two.

The treatment procedures involved a five week sequence of five training sessions devoted to teaching special needs youth occupational social skills. Two training groups received the same vicarious training procedures during each of the five, three hour training sessions. Two additional training groups received the same vicarious plus performance mastery training procedures during five, five and a half hour training sessions. Five different occupational social skills were trained; one each week of treatment.

Preliminary Analysis

Major tenets of the social learning view of behavior therapy and of the social learning view of human behavior were discussed in Chapter 2. One of the principles of social

Table 4.2
Demographic Data Across Experimental
And Quasi-Control Groups

Groups	N	Age *	Previous Work * Experience	Amount of Voc. * Training	Supervisor to Youth Ratio	Youth Supervisors **
Vicarious	11	<u>M</u> 213.45 <u>SD</u> 18.78	<u>M</u> 4.0 <u>SD</u> 4.4	<u>M</u> 10.5 <u>SD</u> 9.1	<u>M</u> .92 <u>SD</u> .92	1/2/4
Vicar. plus Performance	14	<u>M</u> 216.57 <u>SD</u> 16.84	<u>M</u> 6.0 <u>SD</u> 6.3	<u>M</u> 7.8 <u>SD</u> 8.9	<u>M</u> .71 <u>SD</u> .97	1/2/3
Quasi- Control	15	<u>M</u> 216.53 <u>SD</u> 18.47	<u>M</u> 2.7 <u>SD</u> 5.3	<u>M</u> 5.8 <u>SD</u> 5.8	<u>M</u> .71 <u>SD</u> .69	4/5/6/7/8/ 9/10

* Age, work experience and amount of vocational training are expressed in months.

** Numbers identify Youth Supervisors

learning theory concerning social competence suggests that social competence is interdependent upon the individual, the environmental situation and the repertoire of skills of the participants. In order to determine whether demographic variables or amount of supervision youth received were related to levels of occupational social adjustment some preliminary analyses were completed.

Four $2 \times 3 \times 2$ multivariate analyses of variances with repeated measures were utilized as a preliminary analysis of the effects of four demographic variables on occupational social adjustment. The preliminary analyses were completed to address the questions:

1. Are there differences in levels of demographic variables or amount of supervision for youth in the vicarious experimental, combined vicarious plus performance mastery experimental or quasi-control groups (i.e., the main effect due to demographic variables)?

2. If indeed there are changes in pre- and posttreatment levels of occupational social adjustment of vicarious experimental, combined vicarious plus performance mastery experimental or quasi-control groups, are those changes related to demographic variables or amount of youth supervision (i.e., the effect due to demographic by time interaction)?

The means and standard deviations by groups and time of measure for the OSAI, OEE, and OSC are presented in Table 4.3. The MANOVAs concerning demographic variables were performed on pretest and posttest data and were conducted as follows:

1. Age was analyzed by a 3 (15 to 17 year olds vs. 17 to 18 year olds vs. 18 years and older) x 3 (vicarious training vs. vicarious plus performance training vs. quasi-control) x 2 (pretest vs. posttest) MANOVA analyses.

2. Work experience was analyzed by a 2 (no previous work experience vs. previous work experience) x 3 (vicarious training vs. vicarious plus performance training vs. quasi-control) x 2 (pretest vs. posttest) MANOVA analyses.

3. Amount of vocational training experience was analyzed by a 2 (vocational training vs. no vocational training) x 3 (vicarious training vs. vicarious plus performance training vs. quasi-control) x 2 (pretest vs. posttest) MANOVA analyses.

4. Amount of supervision was analyzed by a 2 (supervisor to youth ratio greater than one vs. supervisor to youth ratio less than one) x 3 (vicarious training vs. vicarious plus performance training vs. quasi-control) x 2 (pretest vs. posttest) MANOVA analyses.

Table 4.3

Means and Standard Deviations of Occupational
Social Adjustment by Group over
Pretest and Posttest

Time	Group		OSAI	OEE	OSC
Pre- Test	Vicarious	<u>M</u>	40.78	83.07	57.87
	training	<u>SD</u>	5.85	14.43	23.55
	Vicarious	<u>M</u>	38.74	83.80	45.32
	Perf train	<u>SD</u>	4.67	12.95	12.06
	Quasi-	<u>M</u>	39.64	79.01	67.32
	Control	<u>SD</u>	5.82	16.23	20.85
Post- Test	Vicarious	<u>M</u>	64.38	89.11	64.44
	training	<u>SD</u>	12.33	10.70	21.41
	Vicarious	<u>M</u>	66.91	86.81	51.95
	Perf train	<u>SD</u>	11.57	14.39	11.05
	Quasi-	<u>M</u>	38.32	81.17	66.10
	Control	<u>SD</u>	5.67	15.42	19.21

Each MANOVA analysis yielded no significant main effects for age, work experience, vocational training, or ratio of youth to supervisor: none of the interactions of any of the four demographic variables with treatment effects were significant. Thus, it was concluded the interaction of demographic variables with treatment variables did not significantly effect youth occupational social adjustment scores.

Hypothesis I: Occupational Social Adjustment as
Dependent Variable with Experimental and Quasi-Control
Groups as Classification Variable

There are only a few studies that have attempted to evaluate the efficacy of social learning training procedures (vicarious and performance mastery) in enhancing occupational social adjustment. Warrenfeltz (1981) found instructions, role playing, and self monitoring to produce generalized increases in vocationally oriented social skills for four emotionally disturbed adolescents in a residential program. Fox et al. (1979) found focused instructions and modeling to increase alcoholics' nonverbal assertive behaviors associated with the job situation. Finally, Friel and Holder (1980) found that the combination of procedures including discussion, instructions, modeling, practice, homework and feedback effected both perceived gains as well as skill gains in 12 coping skills relevant to the work setting. The

posttest results of this study are consistent with the findings of previous research.

Hypothesis 1

There is no difference between the vicarious experimental, the combined vicarious plus performance mastery experimental and the quasi-control groups on occupational social adjustment subsequent to treatment.

To test for significant differences in the occupational social adjustment subsequent to treatments, a 3 x 2 multivariate analysis of variance with repeated measures was performed. This analysis indicated significant main effects for group, $F(6,70)=9.15$, $p>.0001$, a significant main effect for time, $F(3,34)=36.74$, $p>.0001$, and a significant group (type of training) x time (pre- post- measures) interaction, $F(6,70)=8.44$, $p>.0001$.

Further discussion of the multivariate results are explained in the subsequent sections concerning the results of univariate analyses. There are three dependent variables that are evaluated in the multivariate analysis including: occupational social skills, occupational efficacy expectations, and occupational social competence. Presented in Table 4.4 are the results of each univariate analyses -- defining the occupational social adjustment construct -- for the vicarious treatment, vicarious plus performance mastery treatment, and the quasi-control groups.

Table 4.4

Univariate Analyses of Variance of
Occupational Social Adjustment

Dependent Variable: OSAI

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	3540.517	2	1770.258	22.35	.0001*
Sub. w Gr.	2930.857	37	79.205		
Time	5526.938	1	5526.938	98.87	.0001*
Group * time	3604.133	2	1802.066	32.24	.0001*
Tm * Sub.w Gr.	2068.346	37	55.901		

Dependant Variable: OEE

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	587.268	2	293.634	0.81	.4535
Sub. w Gr.	13446.098	37	363.408		
Time	272.389	1	272.389	4.65	.0376*
Group * time	50.539	2	25.269	0.43	.6529
Tm * Sub.w Gr.	2167.825	37	58.589		

Table 4.4 (continued)

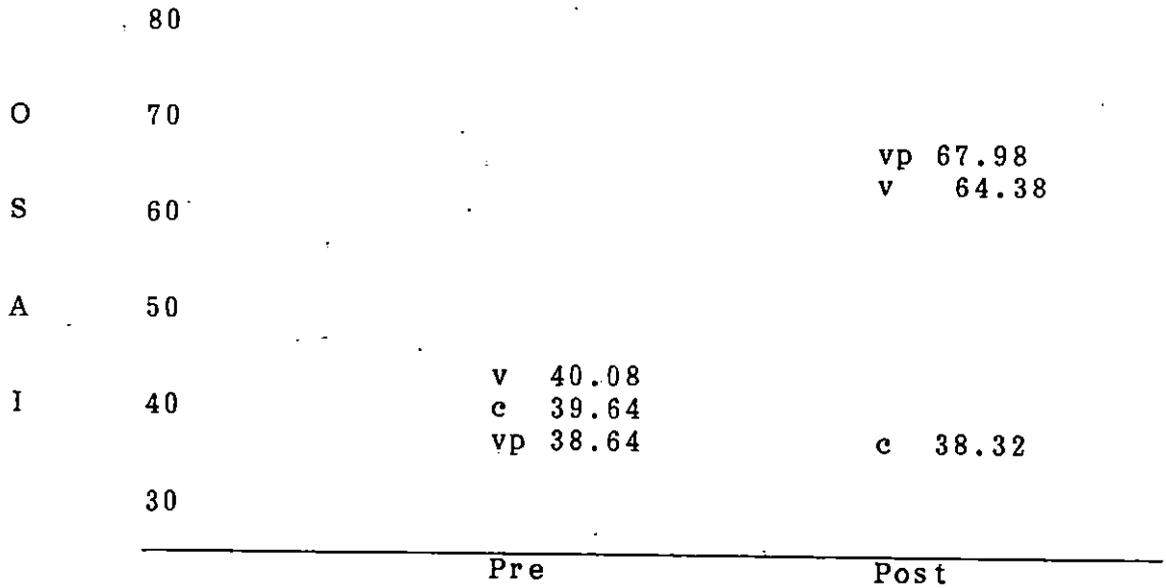
Dependent Variable: OSC

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	4888.994	2	2444.497	4.11	.0245*
Sub. w Gr.	22017.877	37	595.077		
Time	310.470	1	310.470	2.99	.0919
Group * time	286.176	2	143.088	1.38	.2642
Tm * Sub.w Gr.	3835.925	37	103.673		

Univariate analysis of occupational social skills. The first univariate analysis concerning the Occupational Skills Assessment Instrument (OSAI) indicates a significant main effect for the group factor and a significant main effect for the time factor. Most important though, a significant interaction effect is indicated between group membership and time of measure. Thus, there is a significant difference between OSAI scores of the vicarious training, vicarious plus performance mastery training, and quasi-control groups from pretreatment to posttreatment measures too great to be attributed to random fluctuation.

Post hoc analysis and discussion: Occupational social skills. Due to the existence of three groups within the group factor (i.e., vicarious training, vicarious plus performance mastery training, and quasi-control) it was necessary to analyze the data further in order to determine the exact occurrences of significant differences concerning groups' pretest and posttest OSAI scores. As is evident in Figure 4.1, the two treatment groups' mean OSAI scores appear to increase from pretest to posttest measures.

Table 4.5 summarizes the comparisons of OSAI mean scores and the results of multiple Tukey tests. These analyses indicate: (a) In every case there were no pretest differences between treatment groups or between either treatment group with the quasi-control group on OSAI scores;



v = Vicarious training

vp = Vicarious plus performance mastery training

c = Quasi-control

Figure 4.1

Mean Scores Before and After Training

Table 4.5

OSAI Means and Post Hoc Comparisons of
Groups by Pre/Post Measure Interactions

Comparisons		
	Means	Q
Pretest	Vicarious (40.08) vs Control (39.54)	.292
	Vicarious (40.08) vs Vic/Perf (38.58)	.862
	Control (39.64) vs Vic/Perf (38.58)	.661
Posttest	Vicarious (64.38) vs Control (38.32)	8.875*
	Control (38.32) vs Vic/Perf (67.98)	18.489*
	Vicarious (64.38) vs Vic/Perf (67.98)	2.069
Vicarious	Pretest (40.08) vs Posttest (64.38)	5.714*
Vic/Perf	Pretest (38.58) vs Posttest (67.98)	14.713*
Control	Pretest (39.64) vs Posttest (38.43)	.683

* indicates significant differences in comparisons.

$p < .05$, $Q'_{cv(.05)} = 2.859$ (Q' is an approximation of the critical value as two different estimates of experimental error were pooled).

(b) posttest scores for the treatment groups were significantly higher than those not receiving social learning training procedures; (c) posttest scores for the treatment groups were not significantly different; (d) both treatment groups, the vicarious training and the combined vicarious plus performance mastery training groups, indicated significant gains on OSAI scores while those not receiving social learning training showed no significant difference in pretest to posttest OSAI scores.

Univariate analysis of occupational efficacy expectations. The second univariate analysis presented in Table 4.4 concerns the dependent variable labeled Occupational Efficacy Expectation (OEE). This analysis yielded no significant effect of interaction for the group across time; nor was there a significant difference between experimental and quasi-control groups' OEE scores. The analysis did indicate a significant effect of time for all three groups on the OEE measure. The two experimental groups and the quasi-control group had significantly higher posttest than pretest mean scores on the self efficacy measure. Since all three groups were equivalent before the start of treatment, it may be that the effects of time and maturation induced variation on the dependent variable. Another possibility concerns the effect of sensitization to pretesting conditions, thereby alerting the youth of all three groups in evaluating the

importance of the social skills to their performance at work.

It seems likely that the inherent face validity of the social skills evaluated on the OSAI and OEE may have affected youth of all three groups. The skills selected to be instructed and evaluated were validated as important to job success by workers (Mathews et al. 1981). The youth of both treatment groups also strongly supported the importance of the social skills to their job success following the completion of the study (this observation will be explained further in Chapter V). Consequently, because of the face validity of the social skills evaluated by the OSAI and OEE, the youth participating in this study may be predisposed to support the importance of the skills for job success and thus influence their OEE ratings irrespective to treatment effects.

Univariate analysis of occupational social competence.

The last univariate analysis presented in Table 4.4 concerns the third dependent variable identified as Occupational Social Competence (OSC). This analysis indicated a nonsignificant effect of time and a nonsignificant time across group interaction effect. In addition though, this analysis did indicate a significant group effect.

One possible conclusion of the analysis of the OSC data is that the experimental groups and quasi-control group were

not equivalent prior to the start of treatment; thus procedures of randomization would not have been adequate. There is other information though that challenges this conclusion. First, none of the groups differed on pretest scores on the other dependent variables. Secondly, there were no significant group differences noticed on the four demographic variables collected on subjects in either of the two experimental groups or quasi-control group. Thus, analyses of OSAI and OEE scores and demographic variables suggests that groups were equivalent prior to treatment and randomization procedures were adequate.

It seems likely that the differences in Youth Supervisors, the persons providing ratings of subject's occupational social competence, may have effected subject's OSC scores. To test for significant differences in the occupational social adjustment of youth dependent upon Youth Supervisor, a 10 (one of 10 Youth Supervisors supervising subjects) x 3 (vicarious training vs. vicarious plus performance training vs. quasi-control groups) x 2 (pretest vs. posttest) multivariate analysis of variance with repeated measures was performed. The results of this analysis, shown in Table 4.6, indicate a nonsignificant effect of supervisor and a nonsignificant supervisor by time interaction effect on neither OSAI or OEE scores. Unlike the other social adjustment measures though, a significant

Table 4.6

Univariate Analyses of Variance with Repeated Measures of
Occupational Social Adjustment with
Youth Supervisor and Training as Classification Variables
Dependent Variable: OSAI

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	3477.255	2	1738.627	35.46	.0001*
Super w Gr.	490.290	10	49.020	0.54	.8455
ID(Sup.* Gr)	2440.568	27	90.391		
Time	3822.511	1	3822.511	59.78	.0001*
Gr * Tm	3205.604	2	1602.802	25.07	.0001*
Super*Tm w Gr.	341.866	10	34.187	0.53	.8503
ID(Sup.*Gr)*T	17171.48	27	63.944		

Dependent Variable: OEE

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	452.401	2	226.201	0.60	.5690
Super w Gr.	3789.691	10	378.969	1.06	.4245
ID(Sup.*Gr)	9656.408	27	357.645		
Time	62.589	1	62.589	1.38	.2501
Gr * Tm	74.975	2	37.487	0.83	.4485
Super*Tm w Gr.	942.725	10	94.273	2.02	.0638
ID(Sup.*Gr)*Tm	1225.100	27	47.374		

Table 4.6 (continued)

Dependent Variable: OSC

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	4375.819	2	2187.909	1.60	.2487
Super w Gr.	13634.734	10	1363.473	4.39	.0010*
ID(Sup.*Gr)	8383.144	27	310.487		
Time	169.962	1	169.962	2.30	.1408
Gr * Tm	555.203	2	277.602	3.76	.0362*
Super * Tm(Gr)	1842.898	10	184.290	2.50	.0286*
ID(Sup.*Gr)*Tm	1993.027	27	73.816		

effect of supervisor and a significant supervisor by time interaction effect was indicated on OSC scores. Thus there was a significant difference between pretest and posttest occupational social competence scores (OSC) between vicarious, vicarious plus performance mastery, and quasi-control groups relevant to the variable of Youth Supervisor.

Although it would appear randomization procedures were indicated to have been adequate on the more internal measures of occupational social adjustment (i.e., OSAI and OEE) the Youth Supervisors providing OSC ratings indicated differences in groups. Due to design limitations, the Youth Supervisors had knowledge of whether subjects received social learning training or not. In this regard, supervisor knowledge of whether youth were receiving social learning training, combined with the face validity of the OSC Interview Checklists, may have unwittingly confounded OSC ratings. Under this circumstance, it was concluded that the OSC ratings were not useful in evaluating the efficacy of treatment procedures.

Hypothesis II: Occupational Social Skills as
Dependent Variable with Experimental Groups
as Classification Variable

Hypothesis 2

There is no difference between the vicarious training and the combined vicarious plus performance mastery training experimental groups on occupational social skills subsequent to treatment.

An additional objective of this study was to compare vicarious social learning training procedures and vicarious plus performance mastery social learning training procedures effects on aspects of occupational social adjustment. Since the subjects' OEE scores may have been confounded by time, maturation, and the inherent face validity of the skills measured by the OEE Checklist, (as explained previously) the analysis of the OEE scores are not included in this section. The analysis of data including pretest, posttest and delayed posttest measures is limited to the OASI dependent variable.

Four of the 25 youth in the experimental groups could not be reached to schedule delayed posttesting. Thus 21 youth in the experimental groups were tested six weeks following treatment on the OSAI. The means and standard deviations by groups and time of measure for the OSAI are presented in Table 4.7.

Table 4.7
Means and Standard Deviations of OSAI
by Group over
Pretest, Posttest and Delayed Posttest

Time	Group	N		OSAI
Pre- test	Vicarious	8	<u>M</u>	40.07
	training		<u>SD</u>	6.31
	Vicarious plus	13	<u>M</u>	38.58
	Performance tr.		<u>SD</u>	4.92
Post- Test	Vicarious	8	<u>M</u>	62.67
	training		<u>SD</u>	12.02
	Vicarious plus	13	<u>M</u>	67.98
	Performance tr.		<u>SD</u>	11.55
Delayed Post- Test	Vicarious	8	<u>M</u>	57.70
	training		<u>SD</u>	10.92
	Vicarious plus	13	<u>M</u>	69.54
	Performance tr.		<u>SD</u>	8.30

To determine the significance of treatment effects on occupational social skills following treatment and six weeks following treatment, a 2 x 3 univariate analysis of variance with repeated measures was employed. Presented in Table 4.8 are the results of the univariate analysis of variance with repeated measures for the OSAI.

This analysis indicated a significant main effect for the time factor and a significant interaction effect between group membership and time of measure. Thus, there was a significant difference between OSAI scores of the vicarious training and vicarious plus performance mastery training groups over the various times of testing. Since there are three measures on the OSAI over an eleven week period it was necessary to analyze the data further in order to determine the exact occurrences of significant differences concerning groups' pretest, posttest and delayed posttest scores.

Post Hoc Analysis and Discussion: Hypothesis 2. It was concluded that there is a significant difference over the various times of testing, too great to be attributed to random fluctuation, between OSAI scores of the vicarious training and combined vicarious plus performance mastery training groups. This interaction effect is represented in Figure 4.2. The mean scores obtained by both experimental groups showed an increase following treatment. Both groups' delayed posttest scores appear to have remained higher than

Table 4.8

Univariate Analyses of Variance of OSAI
by Group over
Pretest, Posttest and Delayed Posttest

Dependent Variable: OSAI

Source	Sum of Sq.	df	Mean Sq.	F	P
Group	402.133	1	402.133	2.46	.1336
Sub. w Gr.	3111.109	19	163.743		
Time	8543.259	2	4271.629	93.59	.0001*
Group * Time	439.939	2	219.969	4.82	.0136*
Tm * Sub w Gr.	1734.425	38	45.642		

	80		
O	70	vp 67.98	vp 69.54
S	60	v 64.38	v 57.70
A	50		
I	40	v 40.08	
		vp 38.58	
	30		
		Pre	Post
			Delayed Post

v = Vicarious training

vp = Vicarious plus performance mastery training

Figure 4.2

Mean Scores for Experimental Groups at
Pretest, Posttest and Delayed Posttest

pretest scores. Note also that the difference between both groups' OSAI mean scores appeared to increase from posttest to delayed posttest. There is no statistical indication of how the groups differ.

Table 4.9 summarizes the statistical comparisons of OSAI mean scores of experimental groups and the Tukey tests of scores over pretest, posttest and delayed posttest measures. Specifically, the results of these analyses indicated: (a) There was no significant difference in pretest scores between subjects that received vicarious training and subjects that received vicarious plus performance mastery training; (b) there was no difference in posttest scores between subjects that received vicarious training and subjects that received vicarious plus performance mastery training; (c) both experimental groups', vicarious training and vicarious plus performance mastery training posttest scores were significantly higher than pretest scores; (d) the delayed posttest scores of the combined vicarious plus performance mastery training group were significantly higher than the delayed posttest scores of the vicarious training group; and (e) both the vicarious training and combined vicarious plus performance mastery training groups' delayed posttest scores were significantly higher than pretest scores.

Table 4.9

OSAI Means and Post Hoc Comparisons of
Experimental Groups by Pre, Post, and
Delayed Post Measure Interactions

Comparisons	Means	Q
Pretest	Vicarious (40.08) vs Vic/Perf (38.58)	.292
Posttest	Vicarious (64.38) vs Vic/Perf (67.98)	1.67
Delayed Post	Vicarious (57.70) vs Vic/Perf (69.54)	5.51*
Vicarious	Pretest (40.08) vs Posttest (64.38)	10.16*
	Posttest (64.38) vs Delayed Post (57.70)	2.80
	Pretest (40.08) vs Delayed Post (57.79)	7.38*
Vic/Perf	Pretest (38.58) vs Posttest (67.98)	14.43*
	Posttest (67.98) vs Delayed Post (69.54)	.77
	Pretest (38.58) vs Delayed Post (69.54)	15.21*

* indicates significant differences in comparisons

$p < .05$, $Q'_{cv(.05)} = 2.94$ (Q' is an approximation of the critical value as two different estimates of experimental error were pooled).

Summary

The results of the study were presented in this chapter. Four $2 \times 3 \times 2$ multivariate analyses of variance with repeated measures were utilized as a preliminary analysis of the effects of four demographic variables on occupational social adjustment. The 3×2 multivariate analysis of variance with repeated measures was utilized to test the significance of hypothesis one; there is no difference between the vicarious experimental, the combined vicarious plus performance mastery experimental and the quasi-control groups on occupational social adjustment subsequent to treatment. A 2×3 univariate analysis of variance with repeated measures was utilized to test the significance of hypothesis two; there is no difference between the vicarious training and the combined vicarious plus performance mastery training groups on occupational social skills subsequent to treatment.

None of the demographic variables significantly effected youth occupational social adjustment scores and none of the interactions of any of the four demographic variables with treatment effects were significant. One of the major findings of this study was that both experimental groups showed a significant increase on the occupational social skills posttest scores across time when compared to the quasi-control groups who received no social learning

training procedures. Gains in experimental groups' occupational social adjustment were attributed only to increases in occupational social skills: no differences in occupational efficacy expectations or occupational social competence could be attributed to treatment procedures.

Although both experimental groups still evidenced significantly higher occupational social skills scores six weeks following training, when compared to their pretest scores, the combined vicarious plus performance mastery training groups' scores were significantly higher than the vicarious training groups' scores. In other words, youth who were trained with focused instructions, modeling, behavior rehearsal and provided confirming experiences received higher scores on the OSAI six weeks after training than youth who were trained with only focused instructions and modeling procedures.

CHAPTER V

Summary and Recommendations

The purpose of this chapter is to summarize this study and discuss the implications of the results. Following a brief overview of the study, the findings and conclusions are summarized. Next, the findings and their implications are discussed. And finally, the last sections of this chapter contain recommendations for training modifications and future research.

Summary of the Study

The purpose of this study was to empirically investigate components of social learning training procedures in promoting five skill areas of occupational social adjustment for special needs adolescents. The effects of the training procedures on summer workers were evaluated by an analysis of performance of five occupational social skills, the efficacy expectations related to each social skill, and the judgements of occupational social competence provided by the summer workers' supervisors. The five social skills instructed included: (a) accepting a suggestion from a supervisor, (b) accepting a criticism from a supervisor, (c) providing constructive criticism, (d) explaining a problem to a supervisor, and (e) complimenting a co-worker.

The social learning procedures under investigation in this study were categorized as either vicarious training

procedures (i.e., procedures that rely on the client's observing, discussing and listening) or performance mastery training procedures (i.e., procedures that have the client actually practice the skills to be learned). Two groups of subjects were trained in using the five occupational social skills with vicarious social learning training procedures including focused instructions and modeling. Two additional experimental groups were trained with combined vicarious plus performance mastery social learning training procedures. The combined vicarious plus performance mastery social learning training procedures included focused instruction, modeling, behavior rehearsal and confirming experiences.

The experimental groups and one quasi-control group were selected from youth employed by the Summer Youth Employment Program for Planning District Six of the Augusta County Service Area of Virginia. Nine job sites were randomly selected after all the SYEP youth were assigned to one of the 36 job sites. The 25 youth employed at these job sites were randomly assigned to either the vicarious training experimental groups or the combined vicarious plus performance mastery training experimental groups. Fifteen additional youth were randomly selected from the other summer youth workers employed at the remaining 27 job sites and assigned to the quasi-control group. Post-intervention

data were available on 40 subjects, with 11 in the vicarious experimental groups, 14 in the combined vicarious plus performance mastery experimental groups and 15 in the quasi-control group. Twenty one youth in the experimental groups were administered the Occupational Skills Assessment Instrument six weeks following treatment.

Measures of occupational social adjustment were administered to subjects before and after treatment. The dependent variables included levels of occupational social skills, ratings of occupational efficacy expectations related specifically to the skills trained, and ratings of occupational social competence. The split plot repeated measures design was utilized to conduct the preliminary analyses and to determine the significance of hypotheses one and two.

Four $2 \times 3 \times 2$ multivariate analyses of variance with repeated measures were utilized as preliminary analyses of the effects of four demographic variables on occupational social adjustment. The 3×2 multivariate analysis of variance with repeated measures was utilized to test the significance of the hypothesis concerning the effects of social learning treatments on occupational social adjustment. A 2×3 univariate analysis of variance with repeated measures was utilized to test the significance of

the hypothesis concerning the effects of social learning training procedures on occupational social skill levels.

Findings and Conclusions

The research questions proposed for this study will serve as a framework for summarizing the findings and conclusions.

1. Can vicarious social learning training procedures increase the occupational social adjustment of special needs adolescents?
2. Can a combination of vicarious plus performance mastery social learning training procedures increase the occupational social adjustment of special needs adolescents?

The 3 x 2 multivariate analysis of variance with repeated measures indicated a significant interaction for group over time. Further, the univariate results of this analysis for each of the three dependent variables indicated a significant interaction for group over time for the Occupational Skills Assessment Instrument (OSAI) but no significant interaction effect for group over time for either the Occupational Efficacy Expectation (OEE) or the Occupational Social Competence (OSC) checklists. That is, there was not a significant difference between the treatment versus no treatment group (i.e., quasi-control group) on posttest occupational efficacy expectation and occupational

social competence scores. But, it was concluded that there was a significant difference between OSAI scores of the vicarious treatment, combined vicarious plus performance mastery treatment, and quasi-control groups from pretest to posttest measures too great to be attributed to random fluctuation.

Post hoc Tukey tests were conducted on the OSAI data to determine the exact occurrences of differences since there are three groups in the group factor. Posttest OSAI scores for the treatment groups were significantly higher than those not receiving social learning training procedures. In addition, both treatment groups, the vicarious training and the combined vicarious plus performance mastery training groups, indicated significant gains on OSAI scores while those not receiving social learning training showed no significant difference in pretest to posttest OSAI scores. It was concluded that the hypothesis concerning effect of treatments on occupational social adjustment was rejected. Specifically, the social learning training procedures increased occupational social skills levels of subjects.

3. If the social learning procedures were indeed effective in increasing the levels of occupational social adjustment of special needs youth, how were the three components of social adjustment -- occupational social skills, efficacy expectations,

and occupational social competence -- related to the various combinations of training procedures?

It was concluded that there was not a significant difference between the vicarious training versus the combined vicarious plus performance mastery training versus no treatment groups on posttest OEE and OSC scores. It was concluded that there was a significant difference between OSAI scores of the vicarious training versus combined vicarious plus performance mastery training versus no treatment groups from pretest to posttest measures too great to be attributed to random fluctuation.

Post hoc Tukey test analyses of the vicarious training group's posttest mean OSAI score with the combined vicarious plus performance mastery training group's mean OSAI posttest score were conducted. These analyses indicated that the occupational social skills posttest scores for the treatment groups were not significantly different. Both the vicarious training and the combined vicarious plus performance mastery training groups' posttest scores were greater than their pretest scores.

The univariate analysis of occupational efficacy expectations (OEE) indicated a significant effect of time for all three groups. The two experimental groups and quasi-control group had significantly higher posttest scores than pretest scores on the self efficacy measure. The effects of

maturation or the face validity of the social skills evaluated may have influenced subjects' OEE ratings irrespective of treatment effects. Since all three groups showed significant gains in occupational efficacy expectations related to each social skill, effects of social learning training procedures on efficacy expectations were not observed.

The univariate analysis of occupational social competence (OSC) indicated a significant group effect. A post hoc $10 \times 3 \times 2$ multivariate analysis of variance was conducted to test for significant differences in the occupational social adjustment of youth dependent upon Youth Supervisor. It was indicated that there was a significant difference between pretest and posttest occupational social competence scores between experimental and quasi-control groups relevant to the variable of Youth Supervisor. It was concluded that OSC ratings were not useful in evaluating the efficacy of treatment procedures. It appeared that the Youth Supervisors' knowledge of whether subjects received social learning training or not may have confounded OSC ratings.

4. If indeed there are changes in pre- and posttreatment levels of occupational social adjustment of special needs youth, are those changes related to such demographic variables as age, previous work

experience, amount of vocational training or number of youth per supervisor.

Four multivariate analysis of variances with repeated measures indicted no significant main effects for age, work experience, amount of vocational training or ratio of youth to supervisor. None of the interactions of any of the four demographic variables with treatment effects were significant. It was, therefore, concluded that the interaction of demographic variables with treatment variables did not significantly effect youth occupational social adjustment scores.

5. Can vicarious training procedures versus a combination of vicarious plus performance mastery training procedures differentially effect levels of occupational social adjustment?
6. If the social learning training procedures were indeed effective in increasing the levels of occupational social adjustment of special needs youth, was that adjustment maintained over a six week follow-up period?

The analysis of data including pretest, posttest and delayed posttest measures was limited to the OSAI dependent variable. In the previous analysis occupational efficacy expectation scores may have been confounded by time and

maturation. The analysis of OEE scores are thus not included in this section.

The 2 x 3 univariate analysis of variance with repeated measures indicated a significant interaction effect of type of training group across time of measure for levels of occupational social skills. Thus, there was a significant difference between levels of occupational social skills (i.e., OSAI scores) of the vicarious training and combined vicarious plus performance mastery training groups over the various times of testing.

Post hoc Tukey test comparison analyses of the vicarious training group's mean scores and the combined vicarious plus performance mastery training group's mean scores indicated: (a) there was no difference in posttest scores between treatment groups; (b) both experimental groups posttest scores were significantly higher than pretest scores; (c) the delayed posttest scores of the combined vicarious plus performance mastery training group were significantly higher than the delayed posttest scores of the vicarious training group; (d) there was no significant difference in either treatment group's delayed posttest scores with their respective posttest scores; and (e) both the vicarious training and combined vicarious plus performance mastery training groups' delayed posttest scores

were significantly higher than their respective pretest scores.

It was thus concluded that the hypothesis concerning no difference between treatments on occupational social skills was rejected. Specifically the combined vicarious plus performance mastery training treatment group's level of occupational social skills was found to be significantly higher than the vicarious training treatment group's level of occupational social skills six weeks following treatment.

Discussion and Implications

The findings of this study and their implications are discussed in this section. This discussion is supplemented with observational notes taken during the period of intervention and informal youth, plus Youth Supervisor posttreatment ratings of the training procedures.

Effect of Social Learning Training Procedures on Occupational Social Adjustment of Special Needs Adolescents

There are many examples of the utility of procedures based on the paradigm of social learning theory which have demonstrated effectiveness in teaching specific social behaviors (Goldstein & Pentz, 1984; LeCroy, 1983; Rathjen, 1984). The skills trained by social learning procedures are diverse. Empirical investigations of the utility of social learning training procedures used to enhance social skills

related to the job context are meager considering the importance placed upon social skills for job success.

For example, from Flynn's (1982) research review of alternative vocational education for handicapped and disadvantaged youth he suggests that appropriate interpersonal behaviors are among the core skills of secondary vocational education programs. Rudrud and others (1984) in Proactive Vocational Habilitation state that: "Deficits in social skills are often related to failure in vocational settings..." (p. 166). Interestingly, 24 out of the 25 subjects completing the study indicated yes to the question: "Do you think the five social skills instructed during this study are important for employment?". Similarly, 24 out of the 25 youth indicated that they thought that the training should be continued during the next SYEP.

Only four empirical investigations have been located through an extensive literature search conducted for this study. The types of subjects used to investigate various social learning training procedures specifically related to the job situation have included alcoholic adults (Fox et al., 1979), four behavior disordered adolescents (Warrenfeltz, 1981), acute care nurses (West et al. 1984), and economically disadvantaged adolescents (Friel & Holder, 1980). Although the subjects and the specific skills are diverse, the results of these studies are promising.

The conclusion drawn from the results of this study is that the attempts at changing occupational social adjustment proved to be effective: although not conclusively. Support for this conclusion came from the results that occupational social skills scores did increase significantly subsequent to treatments. However, there was the failure to demonstrate similar gains in subject's occupational efficacy expectation scores and occupational social competence scores. Contrary to these findings concerning the OEE and OSC measures were posttreatment ratings provided by both supervisors and youth participating in treatments.

Twenty-four out of the 25 youth receiving social learning training responded yes to questions: (a) Did your ability to use these skills improve as a result of training?, and (b) Do you think that this type of training should be continued next year for other summer youth workers?. Similarly the youth supervisors positively endorsed the same questions following completion of the SYEP.

It is possible that all of the youth were influenced by increased sensitization due to repeated testing. Repeated testing of subjects on the OSAI and OEE exposed the youth to material that has high face validity to the job situation. The statistically significant increase in posttest occupational efficacy expectation mean scores for both

experimental groups and the quasi-control group may not be attributed so much to the treatments, but to a combination of their involvement in a job, increased sensitivity to occupational social skills, and the face validity of the assessment procedures.

An implication drawn from the combination of the results of this study, other empirical findings, and informal youth and youth supervisor ratings of training procedures is such that attempts at changing levels of occupational social skills with social learning training procedures prove to be effective. Although it cannot be concluded directly from the results of this study that the skills trained generalized to the work environment, future research designed to address this question is necessary.

Effects of Social Learning Training Procedures on
Different Aspects of Occupational Social Adjustment

As noted earlier, a number of authors reviewing research on social learning training have pointed out that there are many studies demonstrating effectiveness in teaching specific social behaviors. These same authors also note though that the key unresolved issue in verifying effective social learning training strategies is determining the training procedures effectiveness to promote generalization beyond the training classes themselves

(Goldstein & Pentz, 1984; LeCroy, 1983; Rathjen, 1984; Spence & Marzillier, 1981).

The results of one study directly related to interpersonal coping skills training within the job context are encouraging though. Friel and Holder (1980) concluded that their methods of training disadvantaged youth 12 coping skills resulted in part to perceived as well as skill gains. More importantly, though, the authors conclude: "Six months follow-up study indicates that training in coping skills contributed in part to a lower dropout rate and higher employment rate." (160).

There are three dimensions that have been identified as constituting the essence of occupational social adjustment within the framework of social learning theory. First, occupational social adjustment is partially influenced by an individual's level of occupational social skills or the knowledge of skill(s), when to use the skill(s), and the competence to perform the skill. A second dimension of occupational social adjustment is the individual's occupational efficacy expectation or the person's conviction that they can successfully execute the behavior to produce certain outcomes. The final dimension of occupational social adjustment, occupational social competence, concerns salient others' estimation of how well the individual uses the skill

in their common social context: in other words, how well is the skill generalized to the relevant social environment.

A conclusion drawn from the results of this study is that attempts to change occupational social skills proved to be effective. Support for this conclusion came from the results which indicated that OSAI scores did significantly increase subsequent to both treatments. The implication from these results is that social learning training procedures are effective in increasing disadvantaged youths' knowledge of occupational social skills, the components of individual skills, and the competence to perform occupational social skills.

Similar conclusions and implications cannot be drawn from the results concerning occupational efficacy expectations or occupational social competence. First, the results of this study indicated that both the experimental groups as well as the quasi-control group had significantly higher posttest than pretest mean scores on the OEE measure. It was concluded that time, maturation, and the inherent face validity of the skills measured during the repeated testing may have affected OEE scores. Because of these confounding variables no conclusions can be drawn concerning social learning training and its effects upon occupational efficacy expectations from this study. Future research attempting to evaluate occupational efficacy expectations would require

additional assessment controls (specific recommendations are made in section of recommendations for future research).

Conclusions from the results concerning OSC scores are also limited. It was concluded that the OSC ratings provided by Youth Supervisors are not useful in evaluating the efficacy of treatment procedures. Youth Supervisor knowledge of which subjects were receiving treatment may have confounded results. Thus no implications can be drawn from the results of this study concerning the effectiveness of social learning training procedures in the generalization of the social skills to the work environment. Future research attempting to address occupational social competence would need to make additional design alterations to assure that supervisors are unaware of training procedures.

Differential Effects of Vicarious Training Versus Combined Vicarious Plus Performance Mastery Training on Occupational Social Skills

There are only a few studies that have evaluated social learning training procedures and the maintenance of skills. No study to date has directly compared vicarious procedures to a combination of vicarious plus performance mastery social learning procedures in increasing occupational social skills nor has any study evaluated the retention of occupational social skills trained by vicarious training

procedures verses combined vicarious plus performance mastery training procedures.

The findings of this study indicated that the delayed posttest scores of the combined vicarious plus performance mastery training group were significantly higher than the delayed posttest scores of the vicarious training group. Additionally though, both treatment groups posttest OSAI scores and delayed posttest scores were significantly higher than their pretest scores.

One conclusion of these findings is that combined vicarious plus performance mastery training was more effective in maintaining levels of skill gains than vicarious training procedures: at least up to six weeks following training. It also appears that vicarious procedures are effective in significantly increasing skill gains and maintaining significant gains at least six weeks following training. The combination of the combined vicarious plus performance mastery training group's skill levels increasing from posttest to delayed posttest (although not a significant increase) and the vicarious training group's skill levels decreasing from posttest to delayed posttest (although not a significant decrease) produced a real skill difference six weeks after training.

Certain observations and comments made by youth of the treatment groups are noteworthy. Several of the students in

the combined vicarious plus performance mastery training group commented that they endorsed various performance mastery procedures as useful aspects of training.

Additionally, during the five weeks of training with the vicarious training groups the trainer received numerous requests from youth to role play the skills being discussed and modeled by co-trainers. It would appear that performance mastery procedures resulted in enhancing youth enthusiasm in training and was viewed as useful by some participants.

The implication drawn from the results of follow-up testing of occupational social skills is such that combined vicarious plus performance mastery procedures prove more effective in maintaining skill gains. The performance mastery procedures may produce longer lasting skill gains and thus provide increased chances for youth to use the skill successfully in the work environment. Further research evaluating multiple delayed posttest results may prove to be fruitful.

Recommendations for Training Modification

1. The results of this study suggest that the social learning training procedures had an overall positive effect on levels of occupational social skills of economically disadvantaged youth. Infusion of the intervention program into a regular Summer Youth Employment Program would provide

youth with valuable skills directly relevant to a successful summer job experience.

2. Given the results of this study, it is recommended that alternative vocational education programs, sheltered workshops, and rehabilitation facilities should consider the feasibility of establishing social learning training procedures as a part of work adjustment programs. Without adaptive social skills, the development of other skills may be difficult. For example, someone who slams tools down or responds with a mumble and a cool glare every time he/she is criticized on the job or during training is less employable than an individual who responds to criticism by giving verbal acknowledgement in a neutral tone of voice and asking for clarification on how things need to be corrected.

3. Several youth of the vicarious training group asked to rehearse or role play the social skills. Additionally some of the youth in the combined vicarious plus performance mastery training group endorsed the practice of skills as an effective training procedure. Based upon these observations and the benefits in maintenance of skill gains six weeks following training, performance mastery social learning training procedures would provide a meaningful addition to vicarious training procedures in teaching occupational social skills.

4. Some of the youth suggested that the training be limited to one half of a work day. Judging from the training time to complete the procedures and activities for the combined vicarious plus performance mastery training groups, four hours per session is adequate and more desirable to an entire day of training. The sessions could also be divided so participants could meet twice weekly.

5. The homework procedure in this study was planned between the trainers and participants individually. Once the specifics of how each trainee was to rehearse the skill on the job were agreed upon a homework contract was completed. The benefits of this procedure may be realized to a greater degree if the youth worker is paid for completing the homework as specified on the contract. It is recommended that youth complete the entire sequence of procedures as outlined in Appendix A. The Youth Supervisors may be helpful in verifying that homework contracts are completed and provide additional social reinforcement to further induce generalization of the skill beyond training.

6. Both video and live peer model procedures were used during each training session. During the breaks from training, the co-trainer peer models were the center of the attention of other summer workers. The live peer models were more enthusiastically attended to. It is recommended that

live peer co-trainers be used to act as models for skill demonstrations.

Recommendations for Future Research

1. The replication of this study with another sample of economically disadvantaged adolescents is essential to determine the efficacy of the intervention program. This replication should include the recommended modifications for training occupational social skills.

2. A possible problem in the design of this study was that the Youth Supervisors provided OSC ratings and were also aware of which youth were receiving training or not. It is recommended that in replicating this study the Youth Supervisors assist in generalizing the skills youth learn in training and in verifying training contracts. Because of this involvement and knowledge of the purpose of the study they should not be used to complete OSC ratings. The youth's direct job site supervisor could complete OSC ratings and be more likely to be kept blind to treatment procedures. When job sites are selected for the SYEP site supervisors can be elicited to cooperate in completing ratings for subjects. Finally, it is recommended that the job site supervisors be trained and rehearsed in the use of the OSC Checklist. Interrater agreement could also be verified prior to the supervisors use of the checklist.

3. Additional measures of generalization of skills should be collected in addition to the OSC ratings. If the treatment could be started when youth begin the SYEP, dropout rates through out the summer could be compared between treatment verses no treatment groups. In addition, employer rating scales collected by Youth Supervisors during the course of the summer could be used as an additional measure of generalization.

4. In addition to the six week delayed posttest, a measure of occupational social skills and occupational efficacy expectations should be collected a year from treatment. Many of the SYEP youth return the following year to seek another summer job.

5. The findings from this study suggest that future research using the Occupational Skills Assessment Instrument may prove to be fruitful. The interrater agreement ranged from 86% to 100% with an average of 96% for all behavioral situations. These results are consistent with previous research utilizing the OSAI (Mathews, et al. 1980, 1981, & 1984). Judging from subject and Youth Supervisor comments, the OSAI measures skills relevent to the SYEP.

6. A problem in the assessment of occupational efficacy expectations was that the youth completing the OEE Checklist were not trained or rehearsed in its use. Prior to treatment subjects should have a number of practice sessions in

completing the OEE Checklist and in verifying the accuracy of their predictions with role plays. Social skills not selected for training during the SYEP should be used in demonstrating the use of the OEE Checklist and in subsequent role plays. Finally, prior to each evaluation of treatment results (i.e., pretest, posttest, six week delayed posttest and ten month delayed posttest) each subject should practice completing an OEE Checklist and be given the opportunity to verify their predictions with a role play.

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APPENDIX A

Treatment Procedures

The social learning training procedures constituting the two levels of treatment for this study (i.e., vicarious training procedures--Trt 1, and combined vicarious plus performance mastery training procedures training procedures combined --Trt 2) have been briefly explained in Chapter I. The description that follows provides a more specific definition of social learning training, a more detailed account of the differentiation between treatments, an outline of the techniques used for each training session and sample forms used for training.

Definition of Social Learning Training

Social learning training procedures are frequently used techniques in behavior therapy. The procedures are frequently identified as either structured learning therapy, social skills training, cognitive behavior therapy or simply behavior therapy procedures. The procedures under investigation in this study have been labeled social learning training procedures for several reasons including: the procedures' development and/or refinement has paralleled the development of social learning theory; to circumvent an unrelated and possibly distracting classification of procedures as either germane to reinforcement or cognitive theories; to establish a connotation related more closely to training or

education rather than therapy; and to broaden the implication that these procedures only train behaviors (i.e., such an implication is often associated with social skills training with children) to the inclusion of perceptual and cognitive determinants of behavior.

Therefore, in the broadest sense, social learning training is a social-education program which consists most often of multiple vicarious and performance based procedures. Although not always associated or used as a total package, social learning training procedures often include: focused instructions, modeling, behavior rehearsal, and confirming experiences. These procedures have been used to enhance various areas of pro-social adjustment but are usually related to specific social situations for instructional purposes. The skills and cognitive components to be instructed are then broken down into several sequential behavioral steps.

Table 1 in Chapter I is included again in this appendix to aid in the definition of procedures utilized in this study. In the table that follows, the social learning training procedures are more specifically defined by their component techniques in the far right column. Thus, the vicarious training procedures include focused instructions and modeling. Focused instructions specifically include the component techniques: problem definition, discussion, coach-

Table 1
 Social Learning Training Procedures
 With Their Component Techniques

Social Learning Training Procedures	Component Techniques	
Vicarious Training	Focused Instructions	Problem definition Discussion Coaching Verbal coding Social persuasion
	Modeling	Peer models Video replay Imagery Narration
Performance Mastery Training	Behavior Rehearsal	Role play Video replay Feedback Reinforcement
	Confirming Experiences	Self-direct mastery Reinforcement Feedback

ing, verbal coding and social persuasion. The modeling procedure includes the use of live peer trainer model(s), video replay, imagery and narration. The vicarious procedures similarly require the client's listening and observation or their attention to the model(s) and trainer(s).

The performance mastery training procedures on the other hand require the subject's active participation and practice of the target skill to be instructed. The trainer focuses the attention of each subject on their own performance. The performance mastery procedures include behavior rehearsal and confirming experiences. The component techniques further explicating behavior rehearsal include: role play, video replay, feedback and reinforcement. Confirming experiences specifically include self directed mastery, reinforcement and feedback component techniques.

Although the objectives of social learning training will change--including different social skills, social situations and cognitive process factors--the general procedures and component techniques would remain the same. Therefore, the occupational social skills for each of the five weeks of treatment in this study changed. The procedures and component techniques for each training session has been utilized repeatedly to attempt to positively influence the occupational social adjustment related to each of the five specific occupational social situations.

Following this line of reasoning, the social learning procedures with their component techniques form the outline of the training sessions that constitute the treatments for this study.

Description of Treatments

Throughout the five weeks of treatment a different occupational social skill was trained each week. Each group within the two treatment conditions was trained in using the same occupational social skill each week. The vicarious training procedure groups (Trt 1) received focused instructions and modeling to learn the objective skills. The combined vicarious and performance training procedure groups (Trt 2) received focused instructions, modeling, behavior rehearsal and confirming experiences to learn the objective skills. Trt 1 groups received one three hour training session each week of treatment. Trt 2 groups received one five and half hour training session each week of treatment.

Outline of Training Sessions

The outline that follows includes the objectives of five weeks of treatment, the procedures used each week in Trt 1 to instruct each of the five objective skills, and the procedures used each week in Trt 2 to instruct each objective skill.

- I. The purpose of each session was to teach one of the five occupational social skills, one for each of the

five weeks of treatment, that was relevant to a specific occupational social situation.

A. Accepting a suggestion/instruction from a supervisor includes the following component behaviors:

1. Acknowledge that the suggestion or instruction is heard.
2. Verbal acknowledgement is given such as okay or sure (agreement).
3. The employee repeats the supervisor's instruction.
4. The employee verbally states that he/she will follow the instruction.

B. How to accept criticism includes the following component behaviors:

1. The employee restates person's criticism or asks for specification.
2. Assuming that the criticism is valid there is an apology.
3. The employee asks permission to explain.
4. Facts are included in the explanation.
5. The employee asks for suggestions to solve the problem.

6. Agreement or appreciation is stated in a positive manner.

7. The employee restates the agreed upon solution, provides an alternative solution or makes further comment.

C. A third occupational social skill includes how to give constructive criticism and the component behaviors include:

1. The employee asks permission to speak with his/her associate.

2. Expression of concern or implication of concern for person is given.

3. An explanation of problem is given or a solution is suggested.

4. Reasons for needed change(s) are given.

5. Employee asks if associate understands the criticism.

6. Explanation of the criticism is given again with different words or examples.

7. Employee asks if associate understands.

8. The employee thanks his/her associate for listening.

D. Explaining a problem to a supervisor includes:

1. The employee makes a statement that things aren't going well.
2. The employee asks permission of supervisor if he/she has time to talk.
3. A description of the problem is given.
4. An example of the problem is given.
5. A statement of a possible solution is given.
6. The supervisor is asked if he/she has any possible solutions or can do something.
7. A restatement of the solution is given.
8. The employee asks if there is anything else that needs to be done.
9. The supervisor is thanked for his/her help.

E. Complimenting a co-worker includes:

1. Employee begins interaction with some form of greeting.
2. Compliment is given.
3. Employee gives a response that leads into a conversation.

II. Treatment one (Trt 1) includes vicarious training procedures. The vicarious procedures are used to instruct the previously described occupational social skills over the five weeks of treatment.

A. Focused instructions are defined by five component techniques.

1. An initial step includes a problem definition or an explicit description of a problem situation that would logically lead to the use of a specific social skill to solve the problem.
2. The trainer leads and guides a discussion of the problem situation leading toward development of an outline of component responses to deal with the social situation.
3. The trainer finalizes the problem discussion with explicit descriptions of the appropriate components of the particular social skill (i.e., coaching).
4. The trainer assists group in establishing verbal labels (i.e., verbal labels) for component behaviors.
5. Through social persuasion the trainer and co-trainers reinforce the expectancy outcome that the coping behaviors increase the chances of positive consequences in dealing with the problem situation (i.e., a rationale is established with examples of the social skill's use with positive results).

B. The modeling procedure has four essential components.

1. For this study two SYEP youth were selected prior to treatment, as co-trainers. Thus multiple, competent, peer models were used to role play a coping employee appropriately using an occupational social skill.

2. Video equipment was used to replay the peer model's role plays. The trainer was thus able to point out imagery and narrate the model skits without interrupting the model's initial role play.

3. Imagery entails directing the client's attention to visual representations of coinciding nonverbal behaviors of the modeled social skill (i.e., facial expressions, proximics, posture, timing, pitch, gestures, ect.) and influence the quality of the skills performed.

4. Narration of the modeled skill directs the group's attention to component behaviors and the consequences of the model's use of the occupational social skill.

III. Treatment two (Trt 2) includes vicarious training procedures (as previously outlined) with the addition of performance mastery training procedures.

A. Behavior rehearsal is defined by the following four component techniques.

1. The role play technique provides direct training of the social skill by allowing the student to simulate the problem situation and to practice the components of the occupational social skill.
2. Feedback entails explicitly pointing out the positive and negative aspects or quality of each student's rehearsed efforts.
 - a. The trainer demonstrates how accurate feedback is given and attempts to shape the youth's skillfulness in using the social skill.
 - b. As the behavior rehearsal progresses the students' role plays are Video taped so each student can provide their own accurate feedback on the quality of their use of the occupational social skill.
 - c. Training Checklist are given to each youth. The participants are encouraged to check each component on list as seen in in video replays.
3. Social reinforcement including praise, at-

tention, encouragement etc. was used to elicit participant's efforts and cooperation in participating in the role plays.

B. The confirming experiences procedure is defined by three component techniques.

1. Self directed mastery entails each student writing a contract (with the guidance of a trainer) agreeing to practice the occupational social skill in his/her work environment. Samples of Homework Contracts follows the Training Outline.
2. Youth obtaining confirming experiences are socially reinforced by trainers for completing the terms of the contracts.
3. As an additional obligation of the contract the youth agrees to provide a written appraisal of his/her use of the occupational social skill that is shared with the group during the next training session (feedback).

Homework Contract

SAMPLE CONTRACT

How to Accept an Instruction From Supervisor

Name of Employee: _____ Date: _____

SYEP Supervisor: _____ Worksite: _____

Date of Practice : _____

Location: _____

Time: _____

Describe situation where you are planning your practice:

* I agree to practice the four steps involved in accepting an instruction from a supervisor. The four steps I will attempt to include in the practice are:

1. _____
2. _____
3. _____
4. _____

Employee Signature: _____

Trainer Signiture: _____

What happened: _____

**Bring this contract to your next training class.

APPENDIX B

Assessment Procedures

Occupational Skills Assessment Instrument

(Mathews et al., 1980)

The information that follows concerning the Occupational Skills Assessment Instrument (OSAI) is limited only to parts of the OSAI which were used for this study. Thus only sections developed for evaluating social interaction, parts five through nine, are included. The instructions, examples, and behavior rating checklists included in this appendix have been taken directly from the OSAI Administration Manual.

Administering the Occupational Skills Assessment Instrument

The OSAI was designed to describe accurately the participant's actual level of occupational skills in a variety of job-related situations. The assessment instrument contains a series of analogue employment situations that are associated with finding, securing, and keeping a job. The instrument is designed so that participants can perform "as if" they were in the actual job-related situation: thus, allowing assessment of competence for each state of the employment process.

These instructions specify the steps involved in administering the OSAI. The instrument includes role-play situations involving social interaction. All materials needed to

administer the role-play situations are included. In addition, materials required to score the participant's performance are included.

The Role-Playing Situations

Role-playing scripts have been developed for each social interaction situation contained in the OSAI. These scripts specify: a. the task to be performed, b. a series of situations to be acted out, and c. the scripted statements and behaviors to be performed by the person using the instrument.

Conducting a role-playing session. The first step involved in conducting a role-playing session is to HAVE THE ROLE-PLAYING SCRIPTS TO BE USED, AND A PEN OR PENCIL. This will insure that you have all the materials that you need before starting the evaluation. (An alternative to having the checklist, is to tape record the session so that it can be scored later. In this case, be sure to have a tape recorder that records clearly, the microphone, and a blank tape ready before the session starts.)

Next you should LOCATE A PLACE SUITABLE FOR TRAINING. This involves sitting in a place where you will be fairly free from interruptions. Examples of such a place might be an empty office, a spare room, or a section of the library in which talking is permitted.

The third step is to READ THE TITLE OF THE TASK. This requires reading the title of the skill out loud to the trainee. For example, "The title of this skill is 'participating in a job interview';" "This one is on 'getting a job lead.'"

The fourth step is to READ (ORALLY) THE SITUATION TO BE ROLE-PLAYED. This involves reading the instructions directly from the script. Since each script contains a number of different situations, you can select any one of the situations to be practiced. For example, "Assume that you and I worked together at Lawrence Laundry last year. You are now looking for a job and approach me to seek a job lead."

The fifth step is to ACT OUT THE SCRIPTED ACTIVITIES AND STATEMENTS. This involves doing or saying what is written in the scripted lines. For example, what to do may be "WALK UP TO THE TRAINEE AND LOOK AT HIM/HER." What to say might be "HELLO, LANDMARK FORD."; "MAY I HELP YOU?"

You should PAUSE AFTER DOING EACH SCRIPTED ACTIVITY. This involves waiting for the trainee to respond to your probe statement or activity. During this pause, the participant has an opportunity to say or do whatever he would in the actual situation.

The script also often contains a number of statements that should be made "IF ASKED." In these situations YOU SHOULD SAY OR DO THE ACTIVITY ONLY IF YOU ARE ASKED BY THE

TRAINEE. For example, if in the situation calling for the person to request a job lead the person says " Do you know of any job openings?"; you should respond as stated in the script. If you are not asked, do not volunteer the information. In addition, if you are asked a question that has no scripted answer, feel free to make up an answer to respond to the question.

Once you have finished the situation, REPEAT THESE STEPS FOR THE NEXT JOB-RELATED SKILL.

Scoring the participant's Performance

Scoring the participant's performance can be done after the assessment is completed if an audio or video tape was made. If the session was not taped, scoring must be done during the session. The steps involved include:

First, CHECK THE BEHAVIOR DEFINITIONS SHEET TO BE SURE THAT THE TRAINEE PERFORMED THE ACTIVITIES CORRECTLY. This requires that you look at the behavior definitions sheet for each of the behaviors and decide if the trainee performed the behavior according to the specification. In order to meet the behavior specification, the trainee does not have to use one of the examples listed in the behavior definitions. For a behavior to be scored as correct, the trainee needs to have performed an activity which meets the criteria listed in the behavior definition. An example of a behavior definition is:

1. IDENTIFY YOURSELF. This involves telling the person your name. For example: "This is Mary Berry." "Hi, I'm George.", or "William speaking."

Given this behavior definition, you would mark the checklist as correct only if the trainee gave you his own name (not one of the names listed in the example).

Next you should, PLACE A CHECK MARK () NEXT TO THE TARGET BEHAVIORS ON THE CHECKLIST THAT THE TRAINEE PERFORMED CORRECTLY. This involves making a checkmark in the box next to the target behaviors that the trainee performed according to the behavior definitions. Consider the following example checklist situation. If the trainee, Paul, greeted you by name and identified himself (two initial greeting behaviors), then you should mark these two behaviors with checkmarks on the checklist.

You should PLACE A ZERO (0) NEXT TO THE TARGET BEHAVIORS ON THE CHECKLIST THAT THE TRAINEE DID INCORRECTLY. This involves marking a zero in the box next to any target behavior that the trainee did not do or did incorrectly, according to the behavior definitions sheet. Once again consider the performance of Paul. If he does not identify himself, then a zero should be placed beside this behavior.

After the role-playing session is completed, COMPLETE THE PROPORTION CORRECT. This involves adding the number of the target behaviors marked correct and placing this over

the total number of possible target behaviors. If Paul got 2 correct out of 5 possible behaviors, this results in the proportion of $2/5$. Place this proportion next to the line for proportion correct for the role-playing session.

The last step in using the checklist is to COMPLETE THE PERCENTAGE CORRECT. This involves dividing the numerator (the top number of the proportion) by the denominator (the bottom number of the proportion) and multiplying by 100. If the proportion is $2/5$, then the percentage is 40%. Other examples include: $1/3 = 33\%$; $6/12 = 50\%$; and $19/19 = 100\%$.

Below is an example of a completed checklist. Note that this example includes the performance scores for three different trainers.

CHECKLIST: HOW TO ACCEPT A COMPLIMENT

a. Thank the person for the compliment

✓	✓	✓
✓		✓

b. Comment about the content of the
compliment

Proportion Correct

$2/2$	$1/2$	$2/2$
100%	50%	100%

Percentage Correct

Occupational Skills Assessment

1. Accepting a suggestion from a supervisor.

This time I am going to play the part of your foreman at a warehouse job.

Listen to what I say and respond in the way that you would on the job.

A. "_____, I would like to have a word with you."

B. "From now on, organize the boxes in stacks of 10 instead of stacks of 7. It will make it easier to count them."

2. Accepting criticism from an employer.

In this situation, your boss will criticize your tardiness for work. Assume your car broke down last week. You've been taking the bus to work. The bus arrives 10 minutes late. Your car is to be in the shop for 5 more days. Please respond to the criticism as you would in a real job situation.

A. "You've been coming to work 10 minutes late for the past week. Don't you think that you should try a little harder to get here on time?"

B. IF THEY HAVEN'T ALREADY: "Would you care to tell me about it?"

C. IF ASKED FOR A SUGGESTION: "Since I pass your house on the way to work, I can stop and pick you up, provided you're ready to go at 7:45. I don't mind bringing you to work until your car is fixed."

3. Providing constructive criticism.

In this case, I am a co-worker of yours. You have noticed that when I answer the telephone, I'm not stating

the name of the company that we work for and my voice sounds somewhat rude. Please tell me what I'm doing wrong, as if we were actually on the job together.

A. IF ASKED: "Sure, _____ I have some free time.

B. "Actually this is a real surprise to me. I didn't think I was doing anything wrong. Tell me again, what it is that's happening?"

C. "I really appreciate your letting me know. I'll try to be more polite and make sure to let everyone know that this is _____ when I answer the phone from now on.

4. Explaining a problem to a supervisor.

This situation calls for you to explain a problem to your supervisor. You will play the part of an employee and I will be your supervisor. Assume the problem is that a fellow employee is bothering you so much that you are having trouble getting your job done. Assume that you've already asked the person to leave you alone, but she won't.

A. "Well, _____ how are things going?"

B. IF ASKED: "I have a few minutes free now."

C. "That sounds like a problem. In fact, you are the third person in your section who has mentioned it. Do you have any suggestions on how to handle the problem?"

D. "Let me have a word with her about it. If that

doesn't help any, then we will need to try something else."

E. IF ASKED: "Just let me know how things are going in a few days."

F. "Thank you for bringing this issue up with me."

5. Complimenting a co-worker on a job well done.

This time I'd like you to compliment me on something that you think that I am doing well. Assume that we work together at a bank.

A. "Hi, _____."

B. "Why, thank you, _____. That's really nice of you to say."

CHECKLIST: HOW TO ACCEPT AN INSTRUCTION/SUGGESTION

1. Acknowledge that you heard and can talk. _____

2. Acknowledge that you heard instruction. _____

(okay, sure are occurrence)

3. Say you will follow instruction. _____

(okay, sure, etc. are non-occurrence)

Proportion Correct _____

Percent correct _____

CHECKLIST: HOW TO ACCEPT CRITICISM

- 1. Restate person's criticism or ask for specification. _____
- 2. Apologize for tardiness. _____
- 3. Ask permission to tell your side. _____
- 4. Tell your side with facts. _____
- 5. Ask for or provide suggestions to solve problem. _____
- 6. State appreciation or agreement in a positive manner. _____
- 7. Say you will be punctual when car is returned OR
Provide an alternative solution OR
further comment _____

Proportion Correct _____

Percent Correct _____

CHECKLIST: HOW TO GIVE CONSTRUCTIVE CRITICISM

1. Ask if you can talk to person. _____

2. Tell person you are concerned about
him/her or imply concern. _____

3. Explain what person did wrong or how
to do it right. _____

4. Give reason for person's need to change. _____

5. Ask person if he/she understood. _____

6. Explain criticism again with different
words or examples. _____

7. Ask person if they understood. _____

8. Thank person for listening to you. _____

Proportion Correct _____

Percent Correct _____

CHECKLIST: HOW TO EXPLAIN A PROBLEM TO A SUPERVISOR

1. State things aren't going well. _____

2. Ask if supervisor has time to talk. _____

3. Describe the problem. _____

4. Provide an example of problem. _____

5. State any possible solutions. _____

6. Ask if supervisor has any solutions or
can do something. _____

7. Restate solution. _____

8. Ask if you should do anything else. _____

9. Thank supervisor for help. _____

Proportion Correct _____

Percent Correct _____

CHECKLIST: PROVIDING A COMPLIMENT TO A CO-WORKER

1. Return initial greeting.

2. Provide compliment.

3. Provide positive response to lead
into conversation.

Proportion Correct

Percent Correct

Occupational Efficacy Expectation Checklist

Efficacy expectations were measured after the administration of the analogue situations of the OSAI so that subjects had some understanding of what types of performances were required for each occupational situation. Separate measures were obtained of the magnitude and strength of expectations.

Subjects were provided a list of component behaviors included for each occupational social skill evaluated on the OSAI. Each youth was instructed to designate those component behaviors they expected they could perform if tested again or if the situation on the job occurred. For each task so designated, each subject rated the confidence or strength of their expectations on a 100-point probability scale, ranging in 10 point intervals, from high uncertainty, through intermediate values of certainty, to complete certitude. Expectations were recorded privately by a co-trainer and each youth was assured confidentiality; this procedure was used to maximize each subject's honest expectations.

The procedure used to evaluate each subject's efficacy expectation related to each occupational social skills included:

1. The youth was provided a list of component behaviors for a particular occupational social skill.

2. The evaluator stated: "If you take the test over or if the situation (fill in the name of problem situation) occurs on the job, pick those behaviors or parts of (fill in name of social skill) that you expect you can perform."

3. The evaluator read the list of component behaviors pausing long enough between behaviors to check those selected by the subject.

4. For each component behavior selected the evaluator asked the subject, "How confident are you that you can perform (fill in component behavior) ? Rate your confidence from 100% to 10%. . If you are completely certain check 100%, down to 10% for little confidence.

5. Each subject was prompted to look at the evaluator's checklist while it was being completed.

6. These procedures are repeated for each occupational social skill.

SAMPLE LIST OF COMPONENT BEHAVIORS

How to accept an instruction/suggestion.

1. Acknowledge that you heard the supervisor and can talk.
2. Acknowledge that you heard the instruction (okay, sure, etc. are occurrence).
3. Repeat the instruction.
4. Say you will follow the instruction (okay, sure, etc. are non-occurrence)

SAMPLE LIST OF COMPONENT BEHAVIORS

How to accept criticism.

1. Restate the person's criticism or ask for more information.
2. Apologize for tardiness.
3. Ask permission to tell your side.
4. Tell your side with facts.
5. Ask for or provide suggestions to solve problem.
6. State appreciations or agreement in a positive way.
7. Say you will be punctual when car is returned

OR

provide an alternative solution

OR

provide further comment

SAMPLE LIST OF COMPONENT BEHAVIORSHow to give constructive criticism.

1. Ask if you could talk with person.
2. Tell the person you are concerned about him/her or imply concern.
3. Explain what the person did wrong or how to do it right.
4. Give reason for person's need to change.
5. Ask the person if he/she understood.
6. Explain criticism again with different words or examples.
7. Ask the person if they understood.
8. Thank the person for listening to you.

SAMPLE LIST OF COMPONENT BEHAVIORSHow to explain a problem to a supervisor.

1. State things aren't going well.
2. Ask if supervisor has time to talk.
3. Describe the problem.
4. Provide an example of problem.
5. State any possible solutions.
6. Ask if the supervisor has any solutions or can do something.
7. Restate solution.
8. Ask if you should do anything else.
9. Thank supervisor for help.

SAMPLE LIST OF COMPONENT BEHAVIORS

Providing a compliment to a co-worker.

1. Return initial greeting or give greeting.
2. Provide compliment.
3. Provide positive response to lead into conversation.

Sample of OEE Interview Checklist

OEE INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Skill: Giving Constructive Criticism

<u>Component Behaviors</u>	<u>Student's Prediction</u>		<u>Confidence</u>				
	Yes	No	10%	20%	30%	40%	50%
1. Ask if you can talk with person			60%	70%	80%	90%	100%
2. Tell concerned or imply concern			60%	70%	80%	90%	100%
3. Explain what did wrong or how to do it right			60%	70%	80%	90%	100%
4. Give reason for person's need to change			60%	70%	80%	90%	100%
5. Ask person if understood			60%	70%	80%	90%	100%
6. Explain criticism again with different words or examples			60%	70%	80%	90%	100%
7. Ask person if they understood			60%	70%	80%	90%	100%
8. Thank person for listening to you			60%	70%	80%	90%	100%

Sample of the OEE Interview Checklist

OEE INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Skill: Accepting an Instruction/Suggestion

<u>Component Behaviors</u>	<u>Student's Prediction</u>		<u>Confidence</u>
1. Acknowledge that you heard supervisor.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
2. Acknowledge that you heard instruction.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
3. Repeat instruction.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
4. Say you will follow instruction (okay, sure, etc., are non-occurrence)	Yes	No	10%20%30%40%50% 60%70%80%90%100%

Sample of OEE Interview Checklist

OEE INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Skill: Accepting Criticism

<u>Component Behaviors</u>	<u>Student's Prediction</u>		<u>Confidence</u>				
	Yes	No	10%	20%	30%	40%	50%
1. Restate person's criticism or ask for more information.			60%	70%	80%	90%	100%
2. Apologize for tardiness.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
3. Ask permission to tell your side.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
4. Tell your side with facts.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
5. Ask for or provide suggestions to solve problem.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
6. State appreciation or agreement in a positive way.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
7. Say you will be punctual when car is returned			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%

Sample of OEE Interview Checklist

OEE INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Skill: Explaining a problem to a supervisor.

<u>Component Behaviors</u>	<u>Student's Prediction</u>		<u>Confidence</u>
1.State things aren't going well.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
2.Ask if supervisor has time to talk.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
3.Describe the problem.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
4.Provide an example of problem.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
5.State any possible solutions.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
6.Ask if supervisor has any solutions or can do something.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
7.Restate solution.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
8.Ask if you should do anything else.	Yes	No	10%20%30%40%50% 60%70%80%90%100%
9.Thank supervisor for	Yes	No	10%20%30%40%50%

help.

60%70%80%90%100%

Sample of OEE Interview Checklist

OEE INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Skill: Complimenting a co-worker.

<u>Component Behaviors</u>	<u>Student's Prediction</u>		<u>Confidence</u>				
	Yes	No	10%	20%	30%	40%	50%
1. Return initial greeting or give greeting.			60%	70%	80%	90%	100%
2. Provide compliment.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%
3. Provide positive response to lead into conversation.			10%	20%	30%	40%	50%
			60%	70%	80%	90%	100%

Occupational Social Competence Interview Checklist

Youth Supervisors provided information concerning the occupational social adjustment of youth under their supervision. A trained SYEP youth co-trainer administered the Occupational Social Competence Interview Checklist (OSC).

Supervisors were provided a list of component behaviors for each occupational social skill of the OSAI (i.e., the same lists used in the efficacy evaluation assessment). Each Youth Supervisor was instructed to designate those component behaviors they expect the specific youth under their supervision could perform on the job. For each behavior so designated, each supervisor rated the confidence or strength of their prediction, ranging in 10 point intervals, from high certitude, through intermediate values of certainty, to high certitude. Competence estimations were recorded by a co-trainer. Each supervisor was assured anonymity.

The procedure used to evaluate each subject's occupational social competence related specifically to each occupational social skill included:

1. The supervisor was provided a list of component behaviors for a particular occupational social skill.
2. The evaluator stated: "If the situation came up on the job for (fill in the name of youth) to (fill in

the name of the occupational social skill), select those behaviors that (fill in the name of youth) would use to handle the situation.

3. The evaluator read down the list of component behaviors and checked those selected by supervisor onto an OSC Interview Checklist.
4. For each component behavior selected the evaluator asked: "How confident are you that (fill in youth's name) would use (fill in name of component behavior?) Rate your confidence from 100% to 10%. If you are completely certain, 100%, down to 10% for little confidence in your prediction."
5. Each supervisor was prompted to look at the checklist while it was being completed.
6. These procedures were repeated for each of the five occupational social skills. Steps 3 and 4 were shortened as the evaluator became confident the supervisor knew the process of the assessment.
7. The sample lists of component behaviors for each of the five occupational social skills that were given to the supervisors were identical to those used to evaluate efficacy expectations.

Sample of OSC Interview Checklist

With minor modifications, the OSC Interview Checklists are similar in format to their counterparts of the OEE

Interview Checklists. Thus only a sample of one OSC Interview Checklist is provided.

Sample of OSC Interview Checklist

OSC INTERVIEW CHECKLIST

Name of Student: _____

Name of Job Supervisor: _____

Name of Youth Supervisor: _____

Date: _____

Occupational Social Situation: Accepting an Instruction/Suggest.

<u>Component Behaviors</u>	<u>Supervisor's Prediction</u>		<u>Confidence</u>									
1. Acknowledge that supervisor is heard.	Yes	No	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2. Acknowledge that instruction is heard.	Yes	No	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
3. Repeat instructions.	Yes	No	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
4. Youth says they will follow instruction (okay, sure, etc. are non-occurrence).	Yes	No	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

APPENDIX C

Permission Statements, Letters and Informal
Evaluation Forms

SYEP Youth Permission Statement

I understand that as a part of my summer job I can volunteer to participate in from 2 to 6 hours of occupational social skills training each week. I also understand that I will be tested once before training, again after training each week, and once again six weeks after the end of my summer job. Finally, I understand that my refusal to participate in Mr. Houff's study would not result in my being denied participation in the Summer Youth Employment Program.

I understand that my participation in Mr. Houff's training and testing will become part of my duties for my summer job. Mr. Houff has my permission to use the information collected from my participation in his study. I understand that my individual scores will be kept confidential and only group scores will be reported.

Date

(Signature)

Permission Letter for SYEP Parents

Dear _____:

I would like your permission to include _____ in a research project connected with my work as a youth counselor for the Summer Youth Employment Program (SYEP) and studies at Virginia Tech. Your refusal to provide consent will not result in your child being denied participation in the SYEP.

My study looks at the effects of different training techniques on interpersonal skills important to securing and keeping a job. I will be looking at changes in the youth's work-social adjustment as a result of my training efforts. Training will take 3 to 6 hours each week and each youth will be paid for participation.

To measure change I need to collect information from each of the youth's job supervisors and tests given each youth once before training and twice after training. The information I collect will be included in my dissertation. Your child's scores will be held in confidence; only group scores will be reported; and the results will be available for review.

Please indicate your willingness to allow _____ to participate in my study by filling in the permission slip attached below. Thank you.

Sincerely,

J. Keith Houff

I have read the above statement, understand it, and agree to allow my child to participate in the study described above.

(Date)

(Parent Signature)

*Please return as soon as possible so your son/daughter can participate in the training.

SYEP Youth Permission Statement (Quasi-Control Group)

I understand that as part of my summer job I can volunteer to participate in two 20 minute testing sessions for Mr. Houff's study. I also understand that my refusal to participate would not result in my being denied participation in the Summer Youth Employment Program.

I give permission for Mr. Houff to use the information obtained from my supervisor, Summer Youth Employment Program file, and myself for use in his study. I understand that all information reported will be confidential and that no identifying characteristics of individuals will be disclosed.

(Date)

(Signature)

Permission Letter for SYEP Parents (Quasi-Control Group)

Dear _____:

I would like your permission to include _____ in a research project connected with my work as a youth counselor for the Summer Youth Employment Program (SYEP) and studies at Virginia Tech. Your refusal to provide consent will not result in your child being denied participation in the SYEP.

My study looks at the effects of different training techniques on interpersonal skills important to securing and keeping a job. I need to collect information from each youth's job supervisor, SYEP file, and a test given each youth once at the beginning of his job and once during the last week of his summer job. Each test takes about 20 minutes to complete. All participants will be paid while taking the tests. The information I collect will be included in my dissertation. Your child's scores will be held in confidence; only group scores will be reported; and the results will be available for review.

Please indicate your willingness to allow _____
to participate in my study by filling in the permission slip
attached below. Thank you.

Sincerely,

J.. Keith Houff

I have read the above statement, understand it, and
agree to allow my child to participate in the study
described above.

(Date)

(Signature)

*Please return as soon as possible. If you have questions
call 886-4217.

Summer Youth Employment Prog

June 4, 1983

Mr. Ben Voorhies

GETD-BOS

Mr. Ben Voorhies:

I am a doctoral candidate currently working on a dissertation at Virginia Tech. As I indicated to you in our telephone conversation on May 27th, I am conducting a study with the cooperation of Charlotte McNulty and the Summer Youth Employment Program for the Augusta County Service Area.

Therefore, I am seeking acknowledgement from you that this study does not violate the human rights of any of the youth who may decide to participate. As we agreed in our conversation, I am writing you this letter and have included a brief description of the study.

Please find enclosed an abstract of the study, an outline of the skills to be trained, an outline of the training procedures, a description of the evaluation instru-

ments and copies of the consent forms for parents and youth who choose to participate. If you require any further information I should be very happy to talk to you. I can be reached most conveniently through the SYEP office in Staunton. The number is

I plan to begin this study by June 16: that is, collecting volunteers and consent information as the SYEP is begun. Your prompt reply to my request will be greatly appreciated.

Sincerely,

J. Keith Houff

Summer Youth Employment Prog

June 4, 1983

Dr. Larry McClusky
Research
College of Education
Virginia Tech
Blacksburg, Virginia 24061

Dear Dr. McClusky:

I am a doctoral candidate currently working on a dissertation at Virginia Tech. As I indicated to you in our conversation on May 27th, I am presently arranging to conduct my research with the Summer Youth Employment Program in the Augusta County Service Area. Therefore, I am seeking acknowledgement from you that this study does not violate the rights of any of the youth who may decide to participate. As we agreed in our conversation, I am writing you this letter and have included a brief description of the study.

Please find enclosed an abstract of the study, an outline of the skills to be trained, an outline of the training procedures, a description of the evaluation

instruments and copies of the consent forms for parents and youth who volunteer to participate in the study. If you require any further information I should be very happy to talk to you. I can be reached most conveniently through the SYEP office in Staunton. The telephone number is

I plan to begin this study by June 16: that is, collecting volunteers and consent information as the SYEP is begun. Your prompt reply to my request will be greatly appreciated.

Sincerely,

J. Keith Houff

Demographic Questionnaire

Name: _____

Sex: _____

Race: _____

Date of Birth: _____

Worksite: _____

Number of supervisors for workers: _____

Number of workers per supervisors: _____

Previous employment: _____ how long: _____

_____ how long: _____

_____ how long: _____

Highest grade completed: _____

Have you taken any vocational training? _____

If yes, what kind? _____

If yes, how long? _____

Current educational status: _____

Living situation:

Parents' _____

Guardians _____

Foster home _____

Group home _____

Other _____

Training Evaluation Form

1. Do you think the five occupational social skills are important for employment?

- | | | |
|--|-----|----|
| a. Accepting an instruction/suggestion | Yes | No |
| b. Accepting criticism | Yes | No |
| c. Giving constructive criticism | Yes | No |
| d. Explaining a problem | Yes | No |
| e. Providing a compliment | Yes | No |

2. Did your ability to use these skills improve because of the training? Yes No

3. Are there other social skills you feel are important to job success? _____

4. What parts of the training do you think are most useful?

5. What parts of the training would you change? _____

6. Do you think this type of training should be continued next year for other summer youth workers? _____

APPENDIX D

Quasi-Control Groups Training

Youth not participating in this study were involved in two career orientation classes during the SYEP. The classes were organized to provide summer workers with an orientation to the world of work and to the labor market. Thus in order to improve the quality of skills and habits learned in the work experience situation, group sessions were designed to compliment the work experience. The activities were directed to increase participant's understanding of work requirements and potential roles, relationships of employee/employer/personal life, and civil rights under federal law.

Other activities designed for classes of SYEP youth not receiving social learning training procedures and training in occupational social skills were directed to provide labor market orientation information. The information included occupational demand, growth patterns, wage information, job search techniques and job retention factors.

The activities were designed in a class format lasting from 9:00 a.m. to 2:30 p.m. during two separate class days. The basic activities included watching films, breaking into discussion groups of approximately ten youth to one Youth Supervisor, group discussion of printed materials, and large groups of youth (50 youth) listening to community

representatives. Materials for both days of class activities included:

Civil rights form

A Manual for Youth in SYEP. (1980). U. S. Department of Labor, Employment and Training Administration, Washinton, DC.

Film-Your Job: You and Your Boss

Film-Human Journey: The Job

Film-Looking Ahead to a Career

Film-How a Career Develops

Job Description and Analysis Form

Discussion Guides following film presentations

Representatives from various community vocational and employment facilities were used as speakers. The training facilities represented included: Blue Ridge Community College, Valley Vocational Technical Center, Brants School of Business and Virginia Employment Commission.

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THE EFFECTS OF SOCIAL LEARNING
INTERVENTION PROCEDURES ON
OCCUPATIONAL SOCIAL ADJUSTMENT

by

J. Keith Houff

(ABSTRACT)

There is an increasing demand for the application of verified methods and strategies to enhance the pro-social behavior of workers in the job situation. Social learning training procedures have proven effective in enhancing social behaviors in a variety of social contexts. This study was undertaken to evaluate the effectiveness of social learning training procedures in promoting the occupational social adjustment of special needs adolescents. Specifically, the study sought answers to the following questions:

1. Can vicarious social learning training procedures increase the occupational social adjustment of special needs adolescents?

2. Can a combination of vicarious and performance mastery social learning training procedures increase the occupational social adjustment of special needs adolescents?

3. Will vicarious training procedures versus a combination of vicarious and performance mastery training proced-

ures differentially effect levels of occupational social adjustment?

4. If indeed the social learning training procedures are effective in increasing the levels of occupational social adjustment of special needs youth, will that adjustment be maintained over a six week follow-up period?

5. If the social learning training procedures are indeed effective in increasing the levels of occupational social adjustment of special needs youth, how are the three components of social adjustment--occupational social skills, efficacy expectations, and occupational social competence--related to various combination of training procedures?

Thirty one youth volunteers from nine randomly selected job sites of a Summer Youth Employment Program were randomly assigned to one of two experimental groups. Twenty additional youth from the SYEP were randomly selected and assigned to a quasi-control group. It was found that both experimental groups, vicarious training and combined vicarious plus performance mastery training, showed a significant increase in occupational social skills posttest scores across time when compared to the quasi-control group who received no social learning training procedures. No differences in efficacy expectations or social competence could be attributed to treatment procedures. Although both experimental groups still evidenced significantly higher

occupational social skills scores six weeks following training, the combined vicarious plus performance mastery training groups' scores were significantly higher than the vicarious training groups' scores. The implications, recommendations for training modifications and future research are discussed.