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THE UNIVERSITY OF ALBERTA

SOCIAL SKILLS TRAINING

WITH EMH ADOLESCENTS

by

RUTH JOY MICKELSON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

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DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1983

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ABSTRACT

A pre/post design was used to examine the effects of a social skills training program on the behavior and level of self-esteem of educable mentally handicapped adolescents. The social skills program, Life Skills (Saskatchewan Newstart), was based on an educative problem-solving model originally designed for disadvantaged youths. It had previously been adapted for use with a wide range of populations.

Thirty-three students from a segregated Junior/Senior Vocational High School participated in the study. Two experimental groups Life Skills one (N=11) and Life Skills two (N=9) and one comparison group (N=13) were formed. The program, held daily for three hours, extended from January to March for Life Skills one and for Life Skills two from April to June.

Two measures of behaviors were obtained from the Quay Peterson Behavior Problem Checklist, Conduct Problem and Personality Problem. A further measure was provided by the number of times students received an Internal School Suspension which was part of the school's discipline program. The Culture Free Self Esteem Inventory (Battle) was administered to provide a measure of level of self-esteem. The Conduct Problem, Personality Problem and self-esteem measures were collected three times, January, March and

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Finally to my family Azriel, Rachel, Joel and Dov, thank you for your patience and understanding during this busy period of our lives.

June, and the Internal School Suspension measures were recorded for the months the program operated. Comments were collected from students in the experimental groups following the program.

The research questions were:

Following the Life Skills training program

1) Did students' behavior problems decrease?

2) Did the level of students' self-esteem increase?

Data was analyzed by two way analyses of variance of mean scores on measures of Conduct Problem, Personality Problem and self esteem by groups and times of testing.

Findings indicated that there was no significant ($\alpha \leq .05$) decrease in acting out behaviors (Conduct Problem) following Life Skills. There was a significant ($\alpha \leq .05$) decrease in withdrawn behaviors (Personality Problem) for Life Skills one following the intervention. There was no significant increase in level of self-esteem following Life Skills. Participants' comments evidenced perceptions of their behavior changes and positive feelings associated with the increased self-knowledge.

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Introduction to the Problem

The position taken by William James and also by early social psychologists was that the way students felt about themselves was reflected in their behaviors. That viewpoint is still widely held by psychologists and educators today. Feelings of self-worth can be developed by understanding one's emotions, motivations, cognitions and behaviors. To increase self knowledge a range of affective programs has been conceived and introduced into school curricula and has been taught throughout North America. An objective of many Edmonton schools is to promote the development of higher levels of self esteem in their students.

It has been stated frequently that, because of their segregation in special classes or special schools, retarded students have lower levels of self esteem than their non-retarded peers. It has also been indicated that such students often lack the skills to interact positively with those peers and are poorly accepted by them. Retarded students need to be able to participate fully in the fabric of social life within their families, schools and communities, and when they reach adolescence and young adulthood, they need to be able to live and function as independently as possible within their chosen field and the larger society.

The ability to interact positively with others and to participate effectively in society is referred to as social competence. Social skills and social competence are terms that have often been used interchangeably, giving rise to definitional confusion. However, social competence refers to a more global construct and social skills to specific components of that construct. Both constructs are important for the population in general and the retarded population in particular. The impact of mainstreaming has accentuated their importance.

Following the normalization principle outlined by Wolfensberger in 1966, integration of the retarded into mainstream society has proceeded at differential rates. In education, mainstreaming has been legally or procedurally mandated. Nonetheless, the research results concerned with the effects of mainstreaming remain inconclusive. One result that does emerge consistently is that non-retarded students interact very little with their retarded peers, nor do the non-retarded interact with the learning disabled or emotionally/behaviorally disturbed when those populations are mainstreamed.

To summarize, the nature of the problem concerns the reported lack of acceptance of retarded students, often because of their peceived lack of social competence or social skills. Non-acceptance affects their self esteem and their behaviors. The issues have been highlighted by the

effect of mainstreaming, where the lack of sociial skills of previously segregated students has become more visible. The same issues are also present whether students are educated in integrated, partially integrated or totally segregated school settings. The concern is particularly relevant for ɛ udents designated educable mentally handicapped/retarded. This population, as well as those identified as learning disabled or emotionally/behaviorally disordered, are often characterized by vague definitions. The definitions vary considerably in different geographical areas and their imprecision allows considerable overlap between categories.

Blankenship and Lilly (1981) referred to educable mentally retarded students as those who experienced academic difficulties in school and whose rate of intellectual development was about one-half to three-quarters the rate of average children. The assumption has been that students so labelled would develop functional academic skills and would, for the most part, lead independent lives after leaving school. However, they found no standard cut-off score on intelligence tests for the upper limit of that label. The limit varied from 70 - 85 Full Scale IQ points depending on the school district. Nowhere in the definition was there reference to social or adaptive criteria.

There has been extensive research on social skills training within the last decade, both with regular students and with a range of "special" populations. Most of the

descriptions of programs have pre-school or elementary-age participants. Programs have been developed for particular adolescent populations such as those in residential institutions for juvenile delinquents or those hospitalized but the educable handicapped adolescent in a non-residential school setting appears to have been less exposed to such programs.

Questions that arise from the problem are:

1. What effect would a social skills training program have on the level of self esteem of an educable mentally handicapped adolescent population?

2. Following the social skills program, would there be perceived behavior changes in these students?

Purpose

The purpose of this study was to examine the effect of a social skills training program on the behavior and level of self esteem of a group of educable mentally handicapped (EMH) adolescents. The study was carried out in a segregated junior/senior high school for educable mentally handicapped students in Edmonton. By utilizing a pre/post design it was hoped to provide answers to the questions previously raised regarding change in level of self esteem and change in behavior. The expectation was that following the intervention program the level of student self esteem would rise and inappropriate student behaviors would decrease. The

need for an educational program for the older pupil of limited ability had long been recognized by the Edmonton Public School Board and had been available at Queen's Avenue School and other centres. The classes had provided an effective academic program, "however, because of limited scope and facilities they have not been able to develop in pupils the desired degree of social competence and vocational skill." (Edmonton Public School document 1964) The replacement for the Queen's Avenue School was planned with the following objectives:

1. To give pupils a sense of worth and dignity.
2. To develop a sense of responsibility to society.
3. To develop those aspects of personality, attitudes and skill, which will permit the pupil to become a self-supporting citizen.
4. To develop marketable vocational skills.
5. To provide an opportunity for pupils to partici-pate in activities and to learn skills which may be used in avocational and recreational pursuits. (Edmonton Public School Board document 1964)

In 1967 the Edmonton Public School Board approved the building of a Special Vocational School. It was named L.Y.Cairns Vocational School honoring Dr. L.Y.Cairns.

"Dr. Cairns, during his life span of seventy-five years, was a lawyer, judge, lecturer, chancellor of the University, Trustee and Public School Board chair-man. Dr. Cairns is remembered for his service to Edmonton, The University and education in general." (in a speech delivered by H. Bauer, First Assistant Prinicipal 1969)

M. Izzard and P. Holt who were both former directors of Special Education were "the moving forces behind the initial development of the school." (op.cit.) The school opened in

1969 and the objectives previously stated have continued as guidelines for school's programming and are consistent with those provided by Alberta Education in their 1981 Curriculum Guide for the Educable Mentally Handicapped.

The social skills program had been part of L.Y. Cairn's curriculum for selected students for four years, and although the general feeling of most staff members was that it had proven extremely helpful for most of the participants, no formal outcome study had been done. The program utilized a problem-solving approach called Life Skills. The Life Skills Counselling program was originally conceived by Winthrop Adkins, Robert Wolsch and Sidney Rosenberg in 1965. The authors developed it for use with disadvantaged adolescents in New York. Numerous life problems were collected from the youths and were analyzed, combined and categorized into 50 common life problems, which were then clustered under five major headings which represented composite objectives. It was a structured educative model which used both inductive and deductive modes of enquiry and application.

The Life Skills program used a cognitive/behavioral approach, which was expressed explicitly by calling the group leader a Life Skills coach. Coaching as an educational technique used direct verbal instruction for the teaching of social skills. The skills taught were then rehearsed or role-played in non-threatening situations.

Typically, the coaching strategy involved:
"(1) presentation of rules and standards for
behavior, (2) behavior rehearsal with the coach
and/or peer partner, and (3) feedback from the
coach on performance, as well as discussions and
suggestions for future performances." (Gresham,
1981, p. 162)

The process of problem-solving was designed in a four
stage model: stimulus, evocation, objective inquiry and
application. An evaluation phase was added later. It was
believed that through this process motivation was enhanced,
the value of past learning shown, exploration guided and new
knowledge applied.

The fundamental notion is that experience, followed
by reflection, followed by goal setting, followed
by further exploration and reflection ... is an
effective means for encouraging self-induced
behavioral change. (Adkins, 1970, p. 111)

The stated goal was to increase self knowledge and personal
coping abilities and to assist in appropriate action based
on the increased knowledge. Robert Adkins adapted the
program for use with Indian adults and adolescents in
Northern Canada. He subsequently presented the program to
employment and rehabilitation counsellors from Saskatchewan.
Those counsellors adjusted it to meet local needs and it was
thereafter used extensively by Saskatchewan Newstart and the
Training Research and Development Station in Prince Albert,
Saskatchewan. Life Skills were described by Saskatchewan
Newstart as:

Problem solving behaviors appropriately and
responsibly used in management of personal
affairs. As problem solving behaviors, life
skills liberate, in a way, since they include a
relatively small class of behaviors usable in many
life situations. Appropriate use requires an
individual to adapt the behaviors to time and place.
Responsible use requires maturity or accountability.
As behaviors used in the management of personal
affairs, the life skills apply to five areas of life
responsibility identified as self, family, leisure,
community and job. (Warren, Himsl and Martin, 1971,
p. 56)

Two weeks after this study commenced, a program which

had been planned the previous school term, was implemented

at L.Y. Cairns. The program was called Internal School

Suspension (ISS). It was designed by a group of L.Y. Cairns

staff members and was based on the model originated by

Barbara Coloroso (1982). Its objective was to increase

responsible student behaviors by having clearly defined

school rules and the consequences for rule infraction

clearly delineated. An important aspect of the program

involved problem solving techniques: students were required

to formulate written plans outlining strategies they would

employ to avoid further infractions of that rule. Documents

pertaining to Internal School Suspension are contained in

Appendix C of this study. The discipline program started in

February and ceased at the end of the first week in June and

for this study it was decided to use the number of times a

student had been sent to Internal School Suspension room as

an index of behavior change.

Another question, pertinent to this study, that arose as a result of the discipline program was:

3. During or following the social skills training program, would there be a decrease in the number of times students were sent to the Internal School Suspension room?

The expectation was that there would be a decrease in school rule infraction during and following the social skills training.

Assumptions

1. The Life Skills Coaches would be presenting the structured format using the techniques as outlined in the Life Skills manual.

2. Educable mentally handicapped students who were perceived to be having interpersonal difficulties would benefit from a program designed to increase problem solving skills.

3. The construct of self esteem as delineated by Shavelson, Hubner and Stanton (1976) would be helpful when describing and commenting on the results of Self Esteem Inventory.

Operational Definition

Educable Mentally Handicapped

The criteria for entry into senior classes for the educable mentally handicapped were:

1. Age (at school opening September 1983)
   At least 11 years, 6 months but less than 17 years, 6 months.

2. Academic Functioning
   Usually less than 1/2 expectancy based on years in school (excluding kindergarten) in more than one area of below the 5th percentile for age/grade. e.g.
   Age 12 - below mid grade 3
   Age 13 - below beginning grade 4
   Age 14 - below mid grade 4
   Age 15+ - below beginning grade 5.

3. Ability
   In the Educable Mentally Handicapped Range, Full Scale I.Q. 55 - 75 ±5. Usually neither verbal nor performance scores are in the average range. Mental age 1/2 to 3/4 chronological age.

4. Other
   Significant developmental lags; delayed language and perceptual motor functioning consistent with mental age and not primarily due to English being a second language. The supporting documentation was to be provided by an individual academic assessment, an individual intellectual assessment on a Wechsler and a teacher report.

(Edmonton Public School: Criteria for Special Allocations April, 1983).

Overview

Chapter I served as an introduction and presented the problem and purpose of the study and the research questions that it posed. In Chapter II the literature on social skills programs is reviewed, including theory, assessment and research results. Definitions of self concept and self esteem and descriptions about the Quay-Peterson Behavior Problem Checklist are also given. At the conclusion of this chapter the basic questions that are asked in the study are

presented. In Chapter III the method, including the design
of the study, selection of students, the instrumentation and
procedures used and the data analyses are outlined, and the
hypotheses are stated. The results of the data analyses are
presented in Chapter IV. The significance of the findings
are outlined in Chapter V and guidelines for applications of
the present study including its limitations and suggestions
for further research are offered. The study is then
concluded and summarized.

CHAPTER II

Literature Review

The focus of this chapter is on the constructs of
social competence and social skills as discussed in the
literature. The historical background of the constructs and
different theoretical approaches to them are noted.
Assessment procedures and representative training programs
are presented and the results of the research on the prog-
rams will be given. A definition of self-concept and self-
esteem as used in this study and information about the Quay-
Peterson Problem Behavior Checklist will follow and the
research questions will form the conclusion of the chapter.

Social Competence and Social Skills: The Constructs

The common bond that links both practitioners and
researchers who investigated the issues within the social
competence/social skills field is a concern for an under-
standing of the dynamics of interpersonal effectiveness.

> The growing literature in social competence
> is representative of the conviction of many
> psychologists that the most important features
> of human environments are other people, and among
> the most essential human competencies are those
> that contribute to mutually satisfactory and
> rewarding interpersonal relationships.
> (Wine, 1981, p. 5)

But, what _is_ social competence and what must a person
_do_ to become socially skilled? Who validates what is com-
petent or incompetent? Are skills situation-specific or
are they part of the developmental process, or are they

fixed immutably, in character traits and dispositions? What are the correlates of the constructs and how does behavior change affect them? The answers to these questions can only partially be solved by reviewing the research literature, because the concepts of social competence and social skills are not mutually exclusive; they are multi-dimensional, both in aetiology and content, and have frequently been used interchangeably. In chapter one it was suggested that the competence construct referred to a more global concept, under which the social skills construct was subsumed, however, in researching recent literature it was found that this distinction was frequently not made. There-fore, in the following review the historical background of the constructs will be presented and the various theoretical approaches will be described using their authors dif-ferential definitions.

The change from a defect viewpoint of human functioning to that of a competence perspective was traced by Wine (1981). The defect models attributed supernatural, physical or psychic influences as the causes of deviant functioning. The assumptions that deviant behaviors were the aspects of human functioning that were important to observe, that they were located within the individual and that the causes of that intraindividual state occurred in the past, led to the ignoring of developmental, societal, and environmental in-fluences as contributing factors. The demonological model,

which was prevalent during the mediaeval era, and the medical model, which arose in the sixteenth century and continues today, exemplify the paradigm. They have had considerable impact in the service of the social order, mainly because of their labelling and controlling components. (Wine, 1981)

The development of humanistic psychology led to a shift from the focus on individual pathology to that of an awareness of environmental influence on both individual and group behavior. Subsequently, the narrowness of the behavioral approach to human functioning was recognized by cognitive psychologists and models were developed that delineated the importance of cognitive structures and the interdependency of the individual and the environment.

> The defining characteristics of competence
> approaches is a concern with the effectiveness
> of the individual's interactions with the environment.
> These models deal explicitly with the individual's
> impact on the environment; thus they generally take a
> transactional view of the relationship.
> (Wine, 1981, p. 24)

The approaches which stress competency have been seen as a positive and humanizing development within the helping professions; they have "spurred efforts at intervention directed at promoting a sense of autonomy, feelings of self-efficiency, and social skills." (Wrubel, Benner and Lazarus, 1981, p. 93)

The importance of an interactionist position where "one searches neither for determinant traits in the person, nor

for inescapable forces in the environment" (Wrubel, et.al.,
1981, p. 64) has been recognized by many. O'Malley, (1975,
1977) Rathjen (1980), Trower (1979) and Argyle (1981)
believed that the development by social learning theorists
of the more complex cognitive mediational models, coupled
with the interactionist approach, would lead to a better
understanding of the key components of social competence -
thought, affect and behavior. Rathjen (1980) suggested that
the interactionist position showed the most promise "for
integrating the diverse number of variables that influence
social behavior into one theoretical model." (p. 2) How-
ever, these authors did describe two other theoretical
approaches to the construct, intra-individual differences
which was a trait-personality conceptualization, and
environmental differences which impinged on individuals and
their development. Rathjen (1980) suggested that there was
sufficient evidence in the research to support the alternate
viewpoints that individual deficiencies or environmental
factors influenced the growth of social competencies. The
conclusions that emerged from research reviews regarding
individual differences were:

> (1) The importance of certain individual difference
> variables such as sex, physical abilities, and
> appearance depends on the particular social setting
> in which competence is being measured, (2) individual
> differences that are functions of an individual's
> background or learning history, such as culture,
> class or ethnic characteristics, may limit the types
> of interventions which are feasible with a given
> target group, and (3) cognitive processes and

structures may account for the occasional con-
sistencies in behavior which are found across
situations and thus may help promote generalization
of newly acquired competent behaviors. (p. 12)

and the conclusions that emerged regarding environmental

influences on social competency were:

(1) broad environmental factors such as social
class are likely to affect the type of educational
or therapeutic intervention that will be most
effective with a given individual, (2) aspects of
the physical environment can alter the pattern of
social interaction and have the potential of being
used as interventions to promote greater social
competence, and (3) any effort to measure the
impact of the social environment must proceed
from a reciprocal or interactionist perspective.
(Rathjen, 1980, p. 14)

After reviewing the research literature, rather than

considering individual or environmental influences Rotheram

(1980) chose to summarize the components of social

competence under the following factors.

(1) a. Problem-solving ability emphasizing alter-
native generation and means-end thinking,
b. Discrimination of socially desirable behaviors,
c. Self monitoring through self-reinforcement and
self-punishment, (2) a. Verbal behaviors such as
positive statements to self and others, friendship
imitation and feedback, b. Non-verbal behaviors
such as posture, voice tone, latency, gestures, and
eye contact, and (3) a. Monitoring and assessment of
positive and negative emotional states, b. Methods
of relaxing or control of negative emotional states.
(p. 74)

Pertinent to those factors, Meichenbaum, Butler and

Gryson (1981) believed it was the interaction between

cognitive structures, the particular situation and the

individual's personal experiences that comprised the

totality of social competence. For the authors the

construct "summarizes an entire chain of events." (p. 54)
They outlined the elements of cognitive processing which had
implications for the definition of the construct, the
processing included "internal dialogue, appraisals,
expectancies, problem-solving and role-taking skills." (p.
55) Different styles of cognitive processing such as
information-chunking, automaticity and meta-perspective
taking also impact on social competency (Meichenbaum, et.
al., Argyle, 1981, Arkowitz, 1981 and Bellack, 1979).

Bellack's position was that interest in interpersonal
behaviors was a recent development for behavioral therapists
and cognitive factors and social perception, as well as the
identification of target behaviors, should be considered.
Both Argyle (1981) and Bellack (1979) subsume those
cognitive components under the name social skills.

Four elements that most of the definitions of social
skills have in common and which are generally the focus for
the analysis of a behavioral assessment are (1) there are
discrete verbal and non-verbal performance response
components in any given interpersonal interaction, (2)
social skills are situation specific, what is socially
adequate in one situation may not be so in another, (3) a
skill is a learned-response, social skills are elements of
social competency, and (4) deficit in a particular social
skill may be remediated by training.

Trower (1979) discussed aspects of feedback loop

theories, which integrated cognitive and behavioral

components and also had an interactional focus. The key

processes of the feedback loop theories were:

> A perceptual component for observing and
> receiving feedback from the environment,
> a cognitive (or translation) component for
> making judgments and decisions about response
> choices, and a performance component for carrying
> out actual behavioral sequences.   (p. 4)

Trower believed these components processes could assist our

understanding of social skills and might have some pre-

dictive utility.

Arkowitz (1980) felt that social skills were an

inclusive phenomena, easy to recognize, but difficult to

define behaviorally.   Behaviorists identified social skills

as set of learned abilities which were the basis of

interpersonal behavior.   (Bellack and Hersen, 1979)

A concern was felt about the inclusiveness of the term.

> If we do not restrain ourselves and put some
> limits on the construct of social skill, it
> will expand to include all human behavior, and
> social skills training will soon come to mean
> any process which is capable of producing changes
> in human behavior.   (Curran, 1981, p. 323)

The author felt that social skills should be limited to

motoric responses only, such as the discrete behaviors of

eye contact, body posture, facial expressions, gestures and

greetings.

Argyle stated that the social interactional position

had to be considered because it encompassed a wider

perspective of social adequacy/inadequacy than that which

derived from behavior theory, where social phobia and lack

of assertiveness were seen as the two main failures. Van

Hasselt, Hersen, Whitehill and Bellack (1979) distinguished

between negative assertion, that is, showing legitimate

opposition and making appropriate demands, and positive

assertion where expressions of praise, affection, joy and

appreciation are shown to others. These categories were

expanded by Rinn and Markle (1979) into four repertoires.

1. Self-expressive skills (expressing feeling,
    expression of opinion, accepting compliments,
    stating positives about oneself).

2. Other enhancing skills (stating positives about a
    best friend, stating genuine agreement with
    another's opinion, praising others).

3. Assertive skills (making simple requests,
    disagreeing with another's opinion, denying
    unreasonable requests).

4. Communication skills (conversing, interpersonal
    problem solving). (p. 10)

The construct of assertion has been mentioned in much of the

literature. It has sometimes been equated with social

competency and sometimes viewed as a correlate. Galassi,

Galassi and Vedder (1981) believed that the construct should

be discontinued and that the results of the research

investigation on the topic should be integrated into the

social skills/social competence literature. They pointed to

difficulties of definition, and the simplistic notion that

interpersonal behaviors could be reduced to "three mutually

exclusive categories, two of which, aggressive and non-

assertive, are totally undesirable and the other, assertive,
which is desirable." (p. 301) By incorporating the con-
struct, the emphasis on trait assumptions of personality
would be reduced and the interactionist perspective on
behavior would be increased.

Cox and Gunn (1980), Furman (1980) and Rotheram (1980)
spoke cogently for a consideration of the developmental
perspective when examining children's social behaviors,
without which, Furman said, interventions may well be
inappropriate. He pointed to the lack in behavioral
research of such considerations. Cox and Gunn argued that
unless programs designed to increase social competency were
based on a developmental model "which recognizes
intellectual social and emotional capacities of children at
various ages, the likelihood that our intervention
strategies will be designed to teach children to respond as
miniature adults is high." (p. 128) There is no current
consensus on the developmental "time-frame" nor on the
sequencing of skills which lead to social competence.
Sarason (1981) discussed the role of development with
special reference to problem-solving, role-taking, and
person perception. Her definition of social competence was
"the possession of and ability to use appropriate social
skills. Psychologists usually view these skills as acquired
by some combination of developmental process and learning."
(p. 100)

If the acquisition of skills is dependent on those processes, what is the outlook for students who are developmentally delayed and are therefore slower in their learning and skill development? The heterogeneity of this population has been referred to, nonetheless there are some research findings that are relevant to the issue:

> (1) The laws of learning are essentially the
> same for intellectually handicapped and non-
> intellectually handicapped individuals, (2) The
> manner of learning is similar for the least and
> the most intellectually handicapped individual,
> and (3) Initial inability to perform may not be
> indicative of learning potential. The evidence
> does indeed indicate that many intervention programs
> designed to teach new skills and modify abnormal
> maladaptive behavior are both feasible and effective.
> (Riches, 1980, p. 119)

The attempt to assess adaptive behavior in the retarded has given rise to much confusion and much research needs to be done. (Mercer, 1977) Greenspan (1979) argued that the dimension of social intelligence must be considered when researching the role of adaptive behavior and social competence in the retarded. He defined social intelligence as "a person's ability to deal effectively with social and interpersonal objects and events." (p. 483) Under this rubric he included constructs which other researchers have placed within the social competence definition including "role-taking, person perception, empathic judgment, referential communication and interpersonal tactics." (p. 484) The latter term referred to methods used in social problem solving. Greenspan discussed two such tactics:

those of persuasiveness and conflict-resolution. The work
of Spivack, Shure, et.al., in the area of conflict
resolution has been discussed previously. Few studies have
been undertaken dealing with conflict resolution and social
problem solving with a retarded population. Greenspan
stated that this was a much neglected area of research. He
pointed to the heavy emphasis that had been placed in the
past on socio-emotional variables of mental retardation and
far less emphasis on social intelligence, often to the
detriment of the retarded. By understanding social
intelligence one might better understand the process "by
which some persons of low IQ make successful lives for
themselves whereas others of similar IQ level, are unable
either to lead independent lives or to meet community
standards of acceptable behavior." (Greenspan, 1979, p. 520)

Assessment of Social Skills/Social Competence

The importance of developing appropriate social skills
for maintaining effective interpersonal relationships has
already been established. Therefore, techniques are needed
that will assess accurately what appears either to promote
or to hinder the development of such skills. The selection
of appropriate intervention strategies is dependent on
adequate assessment procedures. In reviewing programs
Galassi, Galassi and Vedder (1980) believed that the
critical issue for investigation was that of assessment

procedures rather than program content, including the need

to:

develop a taxonomy of interpersonal response
and situation classes, to identify criteria for
socially skilled or competent performance ... and
to identify cognitive variables mediating behaviors
in interpersonal situations. (p. 330)

The choice of techniques utilized for assessment

reflected the theoretical position that the investigators

held concerning the conceptualization of the social skills/

social competence construct.

Behaviorists, who until recently appeared to have

focussed solely on motoric or physiological responses of

subjects, were beginning to advocate the use of sociometric

techniques. The developmental perspective was also being

considered by them. The interactionist position utilized a

broader base of assessment tools, congruent with their

awareness of social reciprocity and situational specificity

of competence correlates. Naturalistic observation and

sociometric techniques such as nomination and rating

measures have been cited as being among the most widely used

assessment tools. Other methods that have been validated

include interviewing, and assessments involving cognitive

procedures. (Arkowitz 1981, Bellack 1979, Gresham 1981 and

Van Hasselt, et.al., 1979) These methods are briefly out-

lined in the following pages.

The observation of children in their natural settings

possesses both advantages and disadvantages for the

assessment process. Gresham (1981) listed the advantages as "the sensitivity, non-reactivity, objectivity and specificity regarding antecedents and consequences of social interaction," (p. 145) and the disadvantages as being "proclivity toward bias, lack of predictive validity and lack of relationship with measures of peer acceptance when global intervention rates are used." (p. 145) The implication of the last phrase was that naturalistic observation had been the preferred tool of behaviorists where for the most part operationally defined individual behaviors, as opposed to global behaviors, were assessed. Exemplifying this is the focus that was placed on the motor components of social skills, especially in naturalistic observation. Data collections have been made on rate, frequency, duration and percentage of time spent on such behaviors as smiling, eye contact, gesturing and speech utterances, the consensus is that this is but one part of the social skills construct and such molecular investigations and results must be used in conjunction with other findings.

When peer nomination is utilized students are asked to name a certain number of their peers according to designated criteria, such as 'best friend,' 'seating companion' or 'play partner' and nominations could include positive or negative criteria. When using peer ratings a 5-point Likert-type scale is most frequently given and students are asked to rate their schoolmates according to such specified

criteria as "work partner" or "play partner". A student's

score is the average of the ratings he receives.

Asher and Hymel (1981) pointed to several features of

the rating scale that indicated its superiority over peer

nomination:

1. Test retest reliability was higher.

2. Students rated all their classmates, in contrast

   to the nomination scale where it was only possible

   to learn about the peers who were nominated.

3. The rating scale was responsive to subtle changes

   in criteria.

Thus, when Combs and Slaby (1977) stated that peer

popularity had been overrated as a critical area when

assessing social skills, one would need to know on which of

the two measures peer popularity had been based. Sarason,

(1980) in her literature review, reported that children who

were not popular lacked a range of skills, including the

ability to communicate their emotional needs accurately and

to respond to peers appropriately in helping situations.

This would support the view that rating of peer popularity

can be a useful discriminating variable.

Another frequently used measure to identify children as

candidates for social skills training is teacher rating.

Gresham (1981) stated that teacher ratings had been

validated against behavioral observations as well as socio-

metric data and suggested that teachers could assess their

students' social behaviors accurately.

Bellack (1979) underscored the need for a sound empirical base for the range of assessment strategies and stated that, in spite of the lack of such a base when evaluating interviewing as an assessment tool, it remained one of the most sensitive and critical tools. During an interview, information could be obtained that might not have been revealed through other procedures. In assessing social skills, interviewing has been used far more with adults than with children.

A range of cognitive tasks has been developed to assess social competencies. These include role playing and problem solving and they have been used not only to assess skills but also to instruct them. Role playing generally refers to simultaneously being aware of one's own perspective and that of another, "to walk in another's moccasins." It is considered to be a measure of egocentricity. Bellack (1979) and Arkowitz (1981) have questioned the external validity of such tests and their ability to predict performances in naturalistic situations. In contrast to that position, other researchers have found role-playing to be a valuable measure. Monson, Greenspan and Simeonsson (1979) examined role-playing and referential communication skills, which they identified as correlates of social competence, to discover their relationship in the behaviors of retarded children. They developed special measures to assess the

students' abilities in role-playing and referential communi-

cation skills, because the measures generally used were too

complex for retarded students. The former measure utilized

cartoon drawings, the responses to which discriminated

between egocentric thinking and perspective-taking

abilities. A task that minimized emphasis on verbal

labeling was used to measure referential communication

skills. Teachers rated the students on a social competence

scale, and students were asked to describe their own social

behavior, thus allowing a comparison of the two ratings to

be made. From the results, significant associations were

found "between social competence and role-taking and

referential communication skills of retarded children"

(p. 629) when the teachers assessed the social competence of

their students.

Arkowitz (1981) said that coupled with the need for a

precise conceptualization of social skills is the possible

inclusion within its parameters of "content versus con-

sequences of social responses; situational specificity;

social sensitivity and perception; analysis of behavioral

sequences; determination of skills deficit versus per-

formance inhibitions; and the role of physical appearance."

(p. 323) One of those issues, social perception, has been

described as difficult to evaluate, "work in this area is at

an elemental stage, and well validated instruments of social

skills have not yet been developed." (Bellack, 1971, p. 100)

Shure (1980) described the means-end problem solving
procedure which assessed problem solving skills and focussed
on the identification of problem solving situations and
students' ability to conceptualize and generate a range of
alternative solutions to those situations.

Cox and Gunn (1980) developed an assessment procedure
designed to test the limits "of the child's responsiveness
in interpersonal situations." (p. 119) A total of eight
scenes were written, four scenes to discover the child's
ability to imitate and maintain conversation and four scenes
to determine how the child would respond to interpersonal
conflict situations. A comprehensive scoring procedure was
devised for both verbal and non-verbal behaviors. The
author's objective for those instruments was "to provide an
empirical base for the development of a social skills
training curriculum", (p. 122) which they subsequently wrote
and implemented. They were satisfied with the results of
their instrument validation and found the instruments
informative and supportive of the assessment procedure.

The results of an assessment tool that was developed to
measure one aspect of social intelligence, that of social
inference, supported the developmental processes of the
construct. Social inference refers to the ability to
generate inferences from cues about social situations.
Smith and Greenberg (1983) took concepts from curriculum
theory that were related to inductive teaching and applied

them to measuring the process of social inferential

thinking. Their Test of the Hierarchy of Inductive Know-

ledge (THINK) was designed for retarded learners. It

required the use of social knowledge so that levels of

information processing could be assessed. Five steps in the

process are labeling, detailing, inferring, predicting-

verifying and generalizing. After analyzing data collected

from 120 educable mentally retarded students between the

ages of 9 - 14 years, the developmental and criterion-

related features of the measure were supported. The authors

emphasized the difference between their measure and "the

current uses of the skill-oriented measures of social

competence." (p. 555)

A wide range of assessment techniques have been pre-

sented. Many authors have questioned the psychometric

adequacy of the various instruments and have suggested that

more empirical data is needed. (Argyle, 1981, Arkowitz,

1981, Bellack, 1979, Curran, 1980 and Rotheram, 1980) An

important dimension of assessment relates to the cognitive

components of information processing. An emphasis should be

made for the consideration of gathering data results from a

wide range of different assessment techniques and obtaining

consensus among them.

Representative Training Programs

The basic premise of social skills training is that

there are differences with respect to the degree of social

competency exhibited by individuals in social situations and
that for some of these individuals this lack of adequate
performance is problematic. (Curran, 1979, p. 319) This
lack may also pose problems for the larger societal group.
Children who have problems interacting with others are more
likely to drop out of school, be involved in delinquencies
and be in a high risk situation regarding their general
adjustment. (Cox and Gunn, 1980, Rinn and Markle, 1979)

The content and methodology of training programs
reflected the theoretical beliefs of their designers. Some
programs were behavioral in orientation, (Bornstein,
Bellack, Hersen, 1977, Oden and Asher, 1977, Rinn and
Markle, 1979, and Sprafkin, Gershaw, Goldstein, 1980) some
held a cognitive-behavioral position (Meichenbaum, 1979 and
Rotheram, 1980), others were interactionist, representing a
transactional-phenomenological perspective. (Shure, 1980,
Camp and Bash, 1980 and Cox and Ginn, 1980)

Within social skills programs the focus has been on
both a therapeutic and an educative model (Curran, 1979),
and training and coaching of social skills has been seen as
being both remedial and preventative. (Rinn and Markle,
1979, Rothman, 1982 and Wine, 1981) Rathjen (1980)
suggested that the situational, environmental and individual
perspectives of determining social competence could be inte-
grated into an educational model.

In this chapter emphasis will be placed on those pro-
grams used with children and adolescents, although the con-
ceptual focus and techniques may be similar to those
designed for use with adults. Training programs can focus
on molar or molecular behaviors, ranging from strategies to
cope with criticism or rejection, to increasing eye contact
in greeting situations. (Curran, 1979)

Questions that must be answered when designing inter-
vention programs were listed by Rathjen (1980) as:

> (1) what are the relevant tasks a competent
> person must be able to perform?, (2) what behavior
> defines competent and incompetent solutions for
> the population in question?, (3) what is the subject
> population and what are its relevant processing
> characteristics?, (4) what knowledge or underlying
> rules lead to competent and incompetent performance?,
> (5) how is individual knowledge assessed?, and (6) how
> is the necessary knowledge taught and learned? (p. 75)

The ways in which children learn pro-social behavior are by
direct teaching and reinforcement from adults, by obser-
vational learning from adults, peers and media, and by peer
interactions. Techniques used, singly or jointly, in most
programs included behavior rehearsal, reinforcement, feed-
back, modeling, coaching, self-monitoring procedures, role-
play, use of audio-visual materials, mirror practice and
identification and training of problem solving skills. (Cox
Gunn, 1980, Elardo and Caldwell, 1979 Rathjen, 1981, Rinn
and Markle, 1979, Ross and Sedlack, 1982, Rotheram, 1981,
and Sprafkin, Greenshaw and Shure, 1980) The training of
problem-solving skills which use verbal and cognitive

abilities of children has become an increasingly popular method of intervention. It is accompanied by an increase in literature and research reflecting a social interactionist position when investigating the construct of social competency. (Combs and Slaby, 1977) The emphasis on problem solving techniques and verbal cognitive approaches seems more congruent to finding solutions for the complex issues in social interaction.

The majority of programs have been designed for elementary school age children and while there is much ongoing program research with very young children (Shure, 1980, 1981) there are fewer program designs for the adolescent. The settings for the various programs included mental health centers, (Rinn and Markle, 1979) schools, (Rotheram, 1982, Elardo and Caldwell, 1979 and Cox and Gunn, 1980) day care and nursery facilities, (Shure, 1980, 1981) and residential institutions for specialized populations such as juvenile delinquents or hospitalized adolescents. (Sprafkin, et.al., 1980 and Bornstein, 1980)

Sprafkin, Gershaw and Goldstein (1980) outlined the goals for their training program which they call Structured Learning Therapy, and which was initially designed for psychiatric in-patients, but was adapted for the needs of adolescents in regular schools and in residential treatment settings. Their approach included a clear delineation of behavioral goals, clearly specified training procedures, and

a thorough assessment of changes in behavior following the treatments. "Most of our studies have been factorial in structure, behavioral in criteria,and successful in outcome." (p. 144) Their criteria for success was "positive skill acquisition" - both across population and across skills. Their behavioral background did not preclude attention being focussed on planning skills, and their focus with adolescents was to teach skills for dealing with feelings, stress, and prosocial alternatives to aggression. Skills in communication, planning, problem-solving and decision making were practiced by means of modeling, role-play and social reinforcement. Goldstein, et.al., claimed a 45 percent transfer rate from their program, but although their program was outlined clearly in their article, their experimental research to support the figure of 45 percent was not given.

"The quality of peer relations is an important predictor of later social behaviors" (Furman, 1980, p. 9) and peer popularity is often indexed as evidence of social competence. (Asher and Hymel, 1981, Combs and Slaby, 1981) Isolated and withdrawn children were taught social skills by rule learning, instructions and coaching, and rehearsal and feedback. (Bornstein, Bellack and Hersen, 1977, Oden and Asher, 1977) Rules can assist children's learning if a particular behavior is not in their repertoire. Developmental psychologists believe that many problems in

children's social interactions may be due to a skill deficit
rather than an inappropriate reinforcement contingency.
(Combs and Slaby, 1977, Furman, 1980 and Shure, 1980)
Coaching, as described previously, refers to more than
giving instructions, it includes talking about cues, con-
cepts and rules. (Combs and Slaby, 1977)

The Keep-Cool Rules that are part of the Cox and Gunn
(1981) program were developed from assessment results. The
subjects were 16 male students from a public school setting
and 16 male students from a residential program for children
with behavior problems. The responses in interpersonal
conflict scenes, made by the most skillful children were
formulated as rules and presented as a guideline for
appropriate responses in conflict situations. Cox and Gunn
believed that trying to teach low skill children to generate
their own alternatives in conflict situations by trial and
error could prove discouraging. Their preferred choice was
to teach the Keep-Cool rules, which were suggested behaviors
loosely arranged in a hierarchy. These provided "the basic
structure within which the child can learn to utilize
flexibility in responding to those (conflict) situations."
(p. 126)

The social rules that Oden and Asher taught to children
identified as isolated by their ratings on sociometric tests
were: "(a) participation in play, (b) cooperation by helping
or sharing, (c) communicating by talking and listening, (d)

validation support by looking, smiling or offering
encouragement." (in Furman, p.25) Thirty three third and
fourth grade children were assigned to a coaching, peer-
pairing or control situation. In the coaching situation the
children were taught the social rules about how to play,
practiced with their partner using special games and were
given feedback about their performances. The students in
the peer-pairing group played with the same special games
but were not taught the same social rules or given any
feedback. The students in the control situation played
alone and received no commentary. Results on sociometric
tests following intervention, and one year later, showed
that children in the coaching group had made gains in social
status and continued to do so. There were no changes in the
pre/post ratings of the students in the peer-pairing or
control situation.

Pioneers in the field of interpersonal problem solving,
who have been conducting research since 1971, are Shure,
Spivack, Platt and their associates. To solve problems
efficiently Spivack, et.al., identified the need for four
types of thinking:

    (1) ability to conceptualize alternative solutions,
    (2) step-by-step goal planning and implementation,
    (3) consequential thinking, and (4) awareness of
    cause-effect relationships. (Rathjen, 1980, p.71)

Spivack, et.al., call step-by-step goal planning "means-
end" thinking, which

significantly distinguish normals from the
diagnostically disturbed or behaviorally troubled
beginning at about age 9, while a spontaneous
tendency to weigh pros and cons of an act emerges
as significant to behavior during the adolescent
years (Shure, 1980, p. 159)

The Interpersonal Cognitive Problem Solving (ICPS)

program was originally designed by Shure, Spivack, et.al.

for use with four-year olds and later adapted for five-year

olds. The lessons were completed over a three-month period

and took about twenty minutes daily. Mothers and teachers

were separately involved in training processes. Research

associated with ICPS has been extensive. The form of ICPS

is a variety of games, designed to help children think about

interpersonal problems. Attention and specific language

development to describe and identify emotions, thinking

about similarities and differences in people and the

gathering of information are skills that are taught.

Generating alternative solutions to problems and evaluating

those solutions is also a program component. Results

revealed that

impulsive children became less impatient and
demanding and less likely to explode into
outbursts when faced with frustration. Overly
inhibited children became more socially outgoing,
less fearful, and able to express their feelings
appropriately. (Shure, p. 197)

These increases in social reasoning abilities were

significant and were maintained over a twelve-month period,

when the children were taught by their mothers or were

taught by a teacher.

Meichenbaum (1979) outlined his self-instructional training procedures which he described as a multifaceted format to help children "think before they act, to become more reflective in their behavior and develop self-control." (p. 19) The program included cognitive modeling, overt external guidance, overt self guidance, faded overt self guidance and covert self-instruction. The program resulted in improved performances on Porteus maze, WISC Performance, IQ and increased cognitive reflectivity on the Matching Familiar Figures Test.

Camp and Bash (1981) described their problem-solving program called Think Aloud which was designed to study the effects of verbal mediation training on cognitive and social behavior of young aggressive boys. The authors of the program felt that it had promise as a program for increasing problem-solving skills, but for evaluating changes in aggressive behaviors the results were equivocal at that time. They conducted their program in various settings and noticed some consistent trends including gains in performances on cognitive tests and teacher reports of increased pro-social behaviors.

Rotheram (1981) designed a cognitive behavioral program for children age 9 - 12, which used behavioral techniques and problem-solving approaches. One hundred and six children received the social skills program two hours a week for twelve weeks. Evaluation of the program indicated that

there was significant reduction in both passive and aggressive alternatives in problem solving tasks. There were significantly fewer behavior problems reported for the children who had received the social skills intervention, indicating that the teacher's perceptions had changed, because the behavioral observations did not indicate positive differences. One year later, however, with new teachers, those who had received the social skills training were reported significantly fewer times for behavior problems. Rotheram's program was used with adolescents and learning disabled students. In her discussion of adolescent developmental differences related to power and control, Rotheram showed that the group identified as cohesive (this group had fewer control issues according to group leaders and participants), had fewer behavior problems following intervention.

Meisgeier (1981) with his belief that "poor social skills may be more limiting than academic deficits" (p. 1) designed a program for the adolescent student with serious learning problems and academic skill deficits at the same time. The goals of the social/behavioral curriculum (Meisgeier, 1981) were to help students

> communicate and interact effectively and
> appropriately with peers and adults; accept
> responsibility for personal behavior and decisions
> through autonomous inner-directed behavior; cope
> appropriately with frustrations and stress; be
> appropriately assertive without being aggressive or
> passive aggressive and develop rational problem-solving
> behavior. (p. 6)

The evaluation of the social/behavioral program was based on
student, teacher and parent responses, which were positive.

> Assessment of the goals in the internal/emotional
> area is hampered by the complexity of the phenomena
> to be assessed, contextual influences, uncertainty
> of stability of behavior over time, and a host of
> other factors that confound the evaluation. (p. 11)

The preceding quotation highlights the difficulty of making
a definitive statement about global results of intervention
programs.

Diverse approaches to the definition, assessment and
training of social skills/social competence have been
discussed and the results of interventions have been given.
The conclusions derived from the literature can be
summarized as follows: the biggest problem remains a
definitional one. Definitions are proposed that are con-
sistent with the theoretic positions and value stance of
their authors. However, if the constructs are not defined
clearly, assessment is also difficult. The positions
regarding assessment are polarized into a clinical/
qualitative approach or a quantitative approach. The
consensus appears to be, both with definition and
assessment, that the transactional/interactional approaches
are the most germane and reflect a more inclusive, humane,
developmental and preventative perspective. The generaliz-
ability of learned skills across situations (where
appropriate) remains an issue for the "success quotient" of
training programs.

Self Esteem and Self Concept

The definition of self esteem/self concept as used in this study is the one proposed by Shavelson, Hubner and Stanton (1979) which is presented in the following pages. The definition of self esteem by Battle (1980) is considered congruent with that of the former authors. Following the definitions studies are mentioned that relate the self esteem/self concept of educable mentally handicapped student to other variables.

Self perceptions develop as a result of interaction with the environment and they have long been considered an important determinant of behavior. According to Beane, Lipka and Ludwig (1980) self-perceptions appeared to have three dimensions, self concept, self esteem and values.

> Self concept refers to the descriptions we
> hold of ourselves based on the roles we play
> and personal attributes we believe we possess.
> Self esteem refers to the level of satisfaction
> we attach to that description, or parts of it.
> Self esteem decisions in turn are made on the basis
> of what is important to us, our values. (p. 84)

The self-esteem inventory used in this study was designed by Battle who defined self esteem as "the perception the individual possesses of his own worth." (Battle, 1980, p. 26) An earlier definition by Branden (1969) included "a sense of personal efficacy" in the definition. (quoted in Battle, 1980, p. 26) Shavelson, Hubner and Stanton (1976) identified self perception as their definition of self concept. They ascribed to the construct seven distinctive

features. Self concept is: (1) organized, (2) multifaceted,
(3) hierarchical, (4) stable (general self concept)/unstable
(situational), (5) developmental, (6) descriptive and
evaluative, and (7) differentiable from other constructs.
The author stated:

> as far as we know the distinction between self-
> description and self evaluation has not been
> classified either conceptually or empirically.
> Accordingly the terms self concept and self esteem
> have been used interchangeably in the literature.
> (1976, p. 145)

Shavelson, et.al., (1976) made the distinction between self
concept and inferred self-concept. The former referred to
one's own report of self, the latter to another's
attribution of one's self concept. The position taken by
the symbolic interactionists was

> a positive self concept will lead to socially
> constructive socially desirable behavior, and
> conversely that a distorted self concept will
> lead to deviant, socially inadequate behaviors.
> (Scheirer and Kraut, 1971, p. 131)

This was confirmed by studies relating school behaviors and
self esteem where both pro-social behavior and higher per-
ceived social status among peers were found to be positively
correlated with higher levels of self esteem. (Beane, Lipka
and Ludewig, 1980) Conversely, Yeger and Miezitis (1980)
found that more disruptive students had lower levels of self
esteem.

Strain and Kerr (1981), when reviewing the literature on
the social consequences of educational placement for the
educable mentally retarded (EMR), examined measures of EMR

children's personal evaluations of themselves. They

reported a study carried out by Meyerowitz in 1962 which was

one of the first efficacy studies to use self concept scores

as a dependent measure. The two clear findings that emerged

were:

> First, EMR children attributed significantly
> more undesirable descriptions to themselves than
> did normal youngsters. Second, significantly more
> derogatory comments were used by special as opposed
> to regular class EMR children. (Strain et.al.,
> 1981, p. 16)

In replication of that study it was found that

"segregated children tended to describe themselves in more

derogatory terms than did integrated or normal youngsters."

(p. 17)

They found that one of the major trends regarding

social outcomes of the educational placement of EMR students

was the reported apparent superiority in self concept of

integrated EMR children. The same authors suggested care

when interpreting the results. From 12 studies which

examined the self concept of EMR children in various

educational settings, 6 studies reported results in favor of

integrated students, 4 reported no differences and 2

reported findings of more posit self concept scores for

students in segregated setti gs.

Caution should be taken in equaling a positive level of

self concept/self esteem with healthy personal and social

adjustment. Strain, et.al. believed that the issue was "the

degree of match between one's self perceptions, other's
views and the reality of the situation." (p. 24)

Quay Peterson Behavior Problem Checklist (BPC)

The BPC is an instrument that has been chosen for use
in this study to measure two of the dependent variables -
conduct problems and personality problems. There have been
many studies that have used this instrument and some of the
results are presented in the following pages.

Two disparate perspectives have been associated with
the classification methods of childhood behavior disorders.
The more traditional approach, generally referred to as the
clinical approach held the view that:

1. A disorder is either present or not present.

2. To be present, all the symptoms of the disorder
   have to be evident.

3. Disorders are mutually exclusive.

The quantitative approach to classification is more recent.
In this approach disorders are viewed as being on a
continuum, the basic dimensions of which are independent and
therefore the disorders need not be mutually exclusive.

The validity and reliability of clinical assessments of
behavior disorders have often been called to question.
(Gresham, 1982, and Quay, 1979) The Quay Peterson Behavior
Problem Checklist reflects its author's belief in the
quantitative approach. Peterson (1961) performed the
original factor analysis. He took 400 cases from the files

of a child guidance clinic, noted the referral problems and
compiled the initial item pool from the reported behaviors.
Based on frequency of occurrence and eliminating dupli-
cation, 58 items exemplifying deviant behavior were chosen
to form a checklist. The checklist was given to the
teachers of 831 students (K-grade 6) and the results of the
ratings were analyzed factorially. Conduct problem (CP) and
Personality Problem (PP) emerged as two major dimensions. A
subsequent study performed by Quay and Quay in 1965 with
seventh and eighth graders isolated an independent dimension
which the authors named Inadequacy Immaturity (II). (Quay,
1979) The items that comprise Socialized Delinquency (SD) on
the Behavior Problem Checklist were not part of the research
that led to the development of the three major scales. They
were factors that were reported in the case histories of
juvenile delinquents and were added to the instrument as a
fourth scale by Quay and Peterson.

From an extensive range of more than 37 studies using
multi-variate statistical techniques (most often factor
analyses) and involving more than 17,500 students, the four
factors were confirmed. The students rated came from
selected and unselected samples ranging from pre-school to
adolescents, normal to behaviorially disordered, institu-
tionalized to non-institutionalized juvenile delinquents.
They were rated by teachers, parents or parent surrogate,
investigators, child care staff, correctional staff and

others. CP and PP emerged more prominently than II from all these studies. Gresham (1982) makes the following distinction between conduct disorder and personality disorder. In the former:

> children typically exhibit excessive approach behaviors (e.g., aggressive or disruptive behavior) and their behaviors seem to be more disturbing (to others) than disturbed. On the other hand, children who are classified as personality disordered usually exhibit excessive avoidance behaviors (e.g., social withdrawal, fears or phobias) and their behavior appears to be more disturbed than disturbing to others. (Gresham, 1982, p. 132)

Quay and Peterson (1979) report reliability measures from split half procedures of .92 (CP) and .81 (PP). The measure for (II) was only .26. Test retest reliability measures varied dependent on the time lapsed interval. After a two-week interval on a retest of fourth grade inner-city students (N = 46 boys, 51 girls) the correlations for CP were .85, .91, PP .74, .87, II .82, .93 boys and girls scores respectively. Interrater reliability appeared to be greater for the younger age students. Peterson (1961) found correlations between teacher ratings of .77 (CP) and .75 (PP). With older children (7 and 8 grades) the correlations were lower, .71 and .58 (CP) and .31 and .22 (PP). It was noted that the teachers who completed those ratings were involved with the students for only one hour per day. Quay and Peterson stated "as might be expected, the degree of agreement between raters is a function of the characteristics of raters who are being compared and the situations

in which the various raters make their observations." (Quay and Peterson, 1979, p. 9)

The content validity of BPC derived from its original item pool which was described as exhaustive. The list that appears in the checklist is made up of problems that appeared frequently enough to permit statistical analyses. (Quay and Peterson, 1979, p. 4) Criterion related validity have been reported by Quay (1979) from studies by Zold and Speer where the BPC differentiates "child patient and two samples of child non-patients on the three established and replicated factor scales, CP, PP and II." (Quay and Peterson, 1979, p. 5)

Summary and Research Questions

The literature review has highlighted the differing viewpoints on social competence. The importance of the development of competencies and skills for the educable mentally handicapped population has been emphasized. The growing awareness by cognitive-behaviorist psychologists of the need for an interactionist perspective in assessment and training programs has led them to focus on the processes that mediate cognitions. Problem solving strategies have been developed and have proven helpful with many populations. The use of such techniques with the educable mentally handicapped has not been extensively investigated. In this study the relationship between a problem solving social skills training program called Life Skills and

students' level of self esteem and behaviors is researched.

Research Questions

Following the Life Skills Training Program:

1. Will the level of students' self esteem increase?

2. Will students' behavior problems decrease?

CHAPTER 111

Method

Social skills training programs have been conducted extensively during the last decade and their theoretical bases vary considerably. The program used as an intervention in this study was based on a problem-solving model which utilized behavioral, cognitive and experiential techniques to effect behavior changes. The questions that the study was concerned with related to the behavior and affect of the educable mentally handicapped adolescent following such an intervention. In this chapter a description of the subjects, the design of the study, its instrumentation and procedures will be presented. The hypotheses that are formulated from the questions and methods for analysis of the data form the conclusion of the chapter.

Subjects

The sample consisted of 33 students from L.Y.Cairns (LYC), a vocational junior/senior high school for the educable mentally handicapped. The school was situated in Edmonton, Alberta and received its population mainly from Edmonton, but also from some surrounding small towns and rural areas.

The school curriculum, designed to cover a six-year period, was divided into Junior, Intermediate, and Senior

programs, each with a somewhat different academic and vocational focus.

The Intermediate students' school day was divided, half the day being spent learning academic subjects and half the day in a vocational class. The students had the choice of experiencing eight from a total of fifteen vocational subjects during their years three and four. The Human Relations (HR) program was part of the academic timetable. HR was an affective program in which all students participated. It had both experiential and didactic and included units on effective communication, sex and family life education, community and recreational awareness, and other components designed to increase interpersonal and social competence. Students took music, art or drama (MAD) during the school year, changing their option each trimester, and physical education (PE) was compulsory for all students. MAD and PE were also included in the academic timetable.

The 33 students who assisted in this research project were from the Intermediate program, 27 students were from year 3 and from year 4 there were 6 students. There were 18 males and 15 females, whose ages ranged from 14 years-4 months to 16 years-3 months (x = 15 years-1 month S.D. = 6 months). WISC-R scores had been assessed by school psychologists and were obtained from school records; the range was from 44 to 81 (x = Full Scale IQ 65 SD = 9.3).

Design of the Study

A pre/post design was used in this study. It was

expected that questions would be answered concerning the

efficacy of a problem-solving-focussed social skills

training program for educable mentally handicapped

adolescents. The Life Skills training program (LS) served

as the independent variable, and students' self esteem

scores, students' behavior scores as rated by teachers, and

the number of times during the experimental period that

students were sent to the school's Internal School

Suspension class comprised the dependent variables.

Selection of Students

There were 146 Intermediate students, 25 of whom had

already participated in LS. Students could nominate them-

selves for the program or could be selected by the Inter-

mediate year counsellor and the Life Skills coaches. The

Life Skills coaches also taught in the HR Department at

L.Y.Cairns. They and other teachers from the HR Department,

plus teachers in the school, provided considerable input to

the Intermediate counsellor regarding student selection.

The researcher requested that the selectors identify all the

Intermediate students for whom it was thought LS would be

beneficial. The head of the HR Department felt that LS

would be helpful for all Intermediate students and a few

staff members supported that view. However, the final

number presented to the researcher was 38. Each student in

that number was perceived by one or more staff members as being able to benefit from the LS program. Those perceptions were supported by the large number of times during the previous school term that the student had been sent to the counsellor or to the adminis Intermediate students following critical inqro th peers or with teachers: those incidents ma uded behaviors such as theft, physical or verbal abuse to peers or teachers, refusal to obey teacher instructions, frequent lates, class skipping or truancy. Teachers also recommended students whom they observed as being significantly withdrawn or isolated.

One student in the present sample nominated himself and thirty-seven students were selected by the procedure described above. The students were not randomly assigned to treatment groups. It was possible to hold only two Life Skills programs in 1983, one from January to March and the other from April to June. The assignments were therefore made based on the following criteria: (1) If the students were in their fourth year they were chosen because this would be their final year in the Intermediate program and they would have no further opportunity to participate in a Life Skills program at L.Y.Cairns. (2) The counsellor, LS coaches and some teachers perceived an urgency of need for 23 students. (3) The selectors decided that the remaining 15 students would have to wait until September for their

participation in Life Skills.

The 23 students chosen for Life Skills were divided into 2 groups, and in order to ensure some balance in terms of behaviors, known student characteristics were considered. Thus a mix of the students who had been identified as withdrawn or acting out, or immature, or overly aggressive were placed in each group. Another criterion that was considered, derived from the Life Skills coach's previous experience in the school as a coach of the training program. His strong feeling was that students who were in the higher range of IQ and social awareness became very frustrated in Life Skills group when placed with students who appeared to be functioning in the lowest quartile of the educable mentally handicapped range. Therefore urgency of need, mix of behaviors, and perceived IQ range, were the criteria for group selection. More of the students in LS_1 were perceived to be functioning in the lower EMH range than those in LS_2. The 15 students in the "wait" group were referred to in the study as Group 3 (the comparison group).

From the 12 students selected for the first Life Skills program (LS_1) one male moved from Alberta midway through the program, leaving 11 students in LS_1, 5 males and 6 females, 5 of the total were from year 4 and 6 were from year 3. From the 11 students selected for the second Life Skills program (LS_2), one female dropped out of school prior to the program's commencement and was replaced by a female

student from the comparison group, one male student left
school near the beginning of Life Skills and one female left
school near the end of the program. This left 9 students
who participated in LS_2 , 5 males and 4 females. One
student was from year 4 and 8 were from year 3. From the
comparison group, 1 male left school for a sanctioned work
experience and 1 female was placed in LS_2 , leaving 13
students in Group C, 8 males and 5 females all of whom were
year 3 students.

Instruments

The instruments used for testing were: (1) The Quay
Peterson Behavior Problem Checklist (BPC), (2) The Culture
Free Self Esteem Inventory (Battle), (SEI). From the
former, four sub-scale scores were obtained as measures of
problem behaviors. The two sub-scales used in the study
were Conduct Problem and Personality Problem. The decision
not to utilize the Inadequacy-Immaturity sub-scale was based
on the fact that the population was developmentally delayed
and the relevance of the scales did not appear to be approp-
riate. The Socialized-Delinquency sub-scale was not
utilized because many of its content items were not directly
observable in the non-residential school. The SEI was used
to measure the level of self esteem.

A further measure used to assess student behaviors was
the number of times students received an internal school
suspension (ISS). This program which was defined in chapter

one had no reliability or validity data as it was a newly
conceived program. The rules and their infringements were
specific and it was judged to be an additional indicator of
inappropriate school behaviors which would assist in the
evaluation of the outcomes of the study.

Behavior Problem Checklist

The Behavior Problem Checklist (BPC) was developed as
an instrument by Herbert C. Quay and Donald R. Peterson. It
was designed to rate 55 behavior problems that were found to
occur frequently in childhood and adolescence, and derived
from investigations made into the factor structure of such
problems by Donald Peterson in 1961.

The BPC had 4 sub-scales, Conduct-Problem (CP),
Personality-Problem (PP), Inadequacy-Immaturity (II), and
Socialized Delinquency (SD). Four items were included on
the BPC and were suggested as "flag" items for Psychotic
Behavior (PB). CP, PP, and II were considered by the
authors to be primary sub-scales and were formulated from
factor analyses of behavior ratings on both deviant and non-
deviant subjects. The derivation of the fourth scale (SD),
came from the factor-analytic studies of case history
records, but as those behaviors could be directly observed
in some settings, they were also added to the BPC. The
"flag" items for Psychotic Behavior (PB) were included only
to alert users of BPC that should PB items be checked for
any individual a more thorough investigation was warranted.

The items on the PB scale were considered by the authors to "appear to relate to autism or childhood psychosis on the basis of other research." (Quay, Peterson, 1979, p.2) .

The checklist contains 55 items, 6 of which are not scores. There are 17 items on the CP sub-scale, 14 items on the PP sub-scale, 8 items on the II sub-scale, 6 items on the SD sub-scale and 4 "flag" items for PB. The original format involved a 3 point rating system, to distinguish between mild and severe problems. However, it was indicated from research results that weighted and unweighted scores were so highly correlated, .98 to .99, that the 3 point rating system was revised by Quay and Peterson in 1979, and on the present BPC the raters are required only to indicate whether they have observed the problem or not. The descriptive statistics to which the results of this study are compared are based on the unweighted scoring. Quay and Peterson (1979) have reported data descriptive of many different groups and the results of this study will be compared to those groups considered most comparable and relevant to the sample population. The reliability and validity measures of the BPC have been reviewed in Chapter II.

Culture-Free Self Esteem Inventory

For Children and Adults

The Culture-Free Self Esteem Inventory (SEI) for Children and Adults was designed by James Battle. It was chosen for use in this study because norms were established using local samples. More than 30 studies were conducted by Battle from 1972 - 1980, culminating in the development and standardization of the SEI. The scales were intended to measure the child's or adult's perception of themselves. The following discussion relates only to SEI for children. The SEI has two forms, Form A and Form B, and both consist of the same five sub-scales. These are: (1) general self esteem, (2) social/peer related self esteem, (3) academic/ school related self esteem, (4) parents/home related self esteem, and (5) Lie scale (these are items which indicate defensiveness). Form A contains 60 items, 20 items comprise the general self esteem scale and the remaining 4 sub-scales contain 10 items each. Form B contains 30 items, 10 items comprise the general self esteem scale and the remaining 4 sub-scales contain 5 items each. The items in both forms are divided into two groups: those items which would indicate a high level of self esteem and those which would indicate a low level of self esteem. All students are required to respond by ticking "yes" or "no" to statements about themselves such as "People can depend on me to keep my promises," and "I often feel that I am no good at all."

Scores from the SEI, Forms A and B are computed by adding the number of items checked which ___icate high level of self esteem and excluding those items from the lie scale. The total possible scores for Form A and B are 50 and 25 respectively. The correlation for Forms A and B as reported by Battle (1980) (N=160) is .86. Form B was used in this study.

Information with respect to the reliability of SEI was obtained from the initial studies reported by Battle (1980). The studies were conducted with both elementary and junior high age students for Form A, and elementary students for Form B. Test-retest correlations on Form A for the students in the elementary sample (N = 198, $\alpha \leq .01$) ranged from .81 to .89, and for the junior high sample (N = 117 $\alpha \leq .01$) correlations ranged from .88 to .91. Test-retest correlations on Form B for grade 3-6 students (N = 110, $\alpha \leq .01$) ranged from .79 to .92.

The 60 items of the SEI Form A were reported as being the most discriminating ones from a pool of 150. Alpha Analysis of internal consistency (KR20) indicated the following coefficients: General Self Esteem: Alpha = .71, Social Self Esteem: Alpha = .66, Academic Self Esteem: Alpha = .67, Parents/Home Related Self Esteem: Alpha = .76; Lie Scale: Alpha = .70. Concurrent validity was indicated by comparing scores of students (N = 198) on SEI and Stanley Coopersmith's Self Esteem Inventory (1967). The resulting

correlations ranged from .71 to .80 ($\alpha \leq .01$).

Procedures

The Life Skills training program was held in two separate sessions, the first was conducted from January to March, 1983 and the second from April to June, 1983. The two sessions were taught by different coaches, the coach for the first session was a female teacher who had just completed the Coach Training Course and for the second session was a male coach with three years coaching experience. Prior to the commencement of Life Skills each coach discussed the program and the reasons that the student was selected, both with the students, individually, and with their parents, by telephone. The program was held all morning and after the lunch break the students proceeded to their respective vocational classes. The comparison group continued with their regular school curriculum. The program sequence is depicted graphically in Figure 1.

The groups met in one of the school classrooms. The desks had been moved to one corner of the room and in another corner there was a square carpet on which were several large cushions and a circle of chairs. A video-tape camera, recorder and monitor were available for use every day. Flip-charts, blackboard and chalk and large notice-boards were in the classroom for use in the various phases of the program. All sessions were held in the same classroom other than the times the group left the school for

T.T. 1   T.T. 2   T.T. 3

	Jan. Feb. Mar. Apr. May June
LS₁	Life Skills (half day)	LYC academic and vocational program
	LYC Vocational program (half day)	
LS₂	LYC academic and vocational program	Life Skills (half day)
		LYC vocational program (half day)
C	LYC academic and vocational program
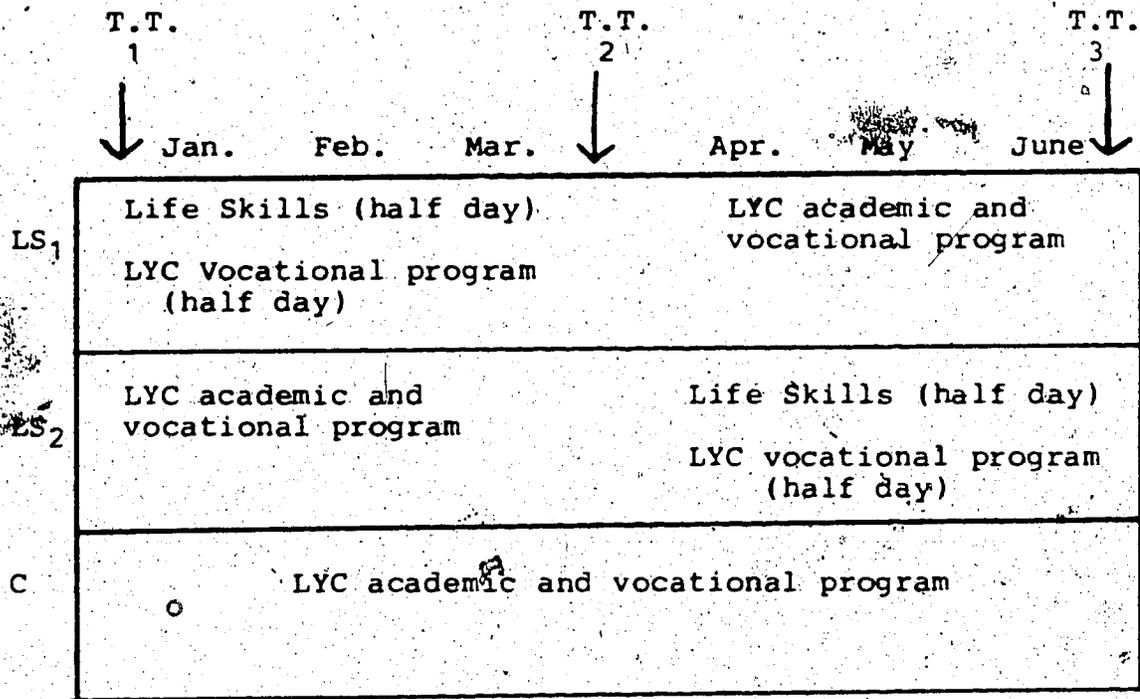
Springbreak one week

LS₁ = Life Skills 1

LS₂ = Life Skills 2

C = Life Skills 3

T.T. = Time of Testing

LYC = L.Y.Cairns

Figure 1. Sequence of Life Skills Program.

community experiences.

The program content and techniques have been reviewed

in chapter one. During the experimental period the entire

lesson content was not covered by either coach, but some

techniques for problem-solving dealing with peer

interaction, and the experiental aspects of self-awareness

were partially covered.

Three test sessions were held for the SEI data

collection. The first was conducted during the second week

in January, the second was held during the last school week

in March, and the third was held at the end of the second

week in June. The SEI was administered to the 33 students

in groups of 11, mixed from Groups 1, 2 and 3. The admini-

stration took place in a school classroom in L.Y.Cairns.

Seven students were absent from school at the times of

testing and they were given the SEI within 1 or 2 days. All

testing was administered by the author, who requested the

students' cooperation and told them that she was looking at

some aspects of the Intermediate program. It was explained

to them that the author had an interest in knowing how they

felt about a few things. To avoid identifying the Life

Skills population the statement was purposefully vague.

With the exception of two students who were initially non-

compliant, all the students were cooperative and the

conditions for testing could be considered favorable. The

instructions as outlined on SEI forms were read to the

students by the author, who then read the SEI statements
aloud; some students said that they preferred to proceed at
their own pace and did so. Commentary made by a few
students concerning the statements on the SEI were felt by
the author to be insightful and perceptive and will be
discussed in Chapter six.

The Behavior Problem Checklist was rated by teachers
during the same time periods as the SEI test sessions. The
rating in January was completed by 7 academic teachers, and
in March and June by 12 vocational teachers and the
assistance of the administrator for the Intermediate
students was also solicited. The teachers were involved in
teaching the student they were asked to rate from 6-1/4 to
11-1/4 hours per week, as well as observing the students'
recess behaviors when the teacher would be performing super-
visory duties. The BPC and SEI were hand scored by an
undergraduate student with checking and supervision com-
pleted by the author. The number of times a student was
sent to the ISS room was obtained from school records.

Following the completion of Life Skills, the author
interviewed most of the students individually to find out
how they felt about having participated in the program. The
questions that they were asked are presented in Appendix and
a sampling of representative commments are included in
Chapter five.

Data Analyses

To determine the effect of the intervention program in this pre/post design, the data was submitted to a two-way analyses of variance with repeated measures (Ferguson, 1981, p. 321). The two factors were groups and times of testing. The three groups were Life Skills one, Life Skills two and a comparison group, and the three times of testing were January, March and June. Scores obtained at test-times one and two were the pre/post scores for LS_1 and those obtained at test-times two and three were the pre/post scores for LS_2. At test-time three the LS_1 scores were those obtained after a three month follow-up period. The significance level for hypotheses testing was set at $\alpha \leq .05$. The analyses of variance program used for the anovas was that within the Statistical Program for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, 1975). SPSS is available in the Division of Educational Research Services Program Library.

Following the anova procedures Scheffé multiple comparisons were utilized when indicated. The Scheffé, used when the cells are of unequal size, is more rigorous than other multiple comparison methods and leads to fewer significant results. Scheffé therefore recommended that a less stringent significance level be employed and suggested the $\alpha \leq .10$ level (Ferguson, 1981, p. 309). An F distribution is used in the Scheffé, the computed value of F being

compared to the F critical value. In this study pairs of means were contrasted and F values were considered signif- icant if they were equal to or greater than the critical F.

Descriptive data pertinent to the school discipline program were collected.

Although sex and IQ were not variables of focus, t-tests were performed on means of behavior and self-esteem measures, by sex and IQ, to ensure the comparability of groups prior to treatment.

Hypotheses

Hypothesis 1

There will be a significant* decrease in scores on the Conduct Problem sub-scale of the Behavior Problem Checklist of students in the experimental groups (LS_1 and LS_2) following the intervention program.

Hypothesis 2

There will be a significant* decrease in scores on the Personality Problem sub-scale of the Behavior Problem Checklist of students in the experimental groups (LS_1 and LS_2) following the intervention program.

Hypothesis 3

There will be a significant* increase in level of self- esteem as measured on the Self Esteem Inventory of students in the experimental groups (LS_1 and LS_2) following the intervention program.

* Significance is measured at $\alpha \leq .05$ with the exception of Scheffé tests @ .10.

RESULTS

In the previous chapter three hypotheses were presented; the results of the statistical analyses of the data pertinent to the testing of those hypotheses are outlined in this chapter. All the hypotheses were tested using a two-way anova for 2 experimental groups and 1 control group, across 3 test times. Pre/post scores for LS_1, were those obtained at test-times 1 and 2 and pre/post scores for LS_2 were those obtained at test-times 2 and 3. Although the relationship between sex, IQ and measures of self esteem and behaviors were not variables of focus in this study, t-tests on means of all measures were carried out by sex and IQ. No significant difference based on sex or IQ was found in any of the t-tests that were performed. At the end of the chapter descriptive data on the school discipline program (ISS) will be given.

Hypothesis 1

Hypothesis 1 states that there will be a significant decrease in scores on the Conduct Problem sub-scale of the Behavior Problem Checklist of students in the experimental groups (LS_1 and LS_2) following the intervention program.

A summary of the descriptive statistics for Hypothesis 1 is presented in Table 1. The results of the two-way anova are shown in Table 2. Inspection of Table 2 shows that a significant Main Effect (Time of testing) was found relevant

Table 1.

Means and Standard Deviations for Conduct Problem Data
for Three Groups across Three Test Times.

Test Times

		1		2		3	
Group	N	Mean	SD	Mean	SD	Mean	SD
LS_1	11	3.1818	3.311	3.8182	3.4005	3.1818	3.188
LS_2	9	3.0000	3.464	4.3333	3.0000	3.2222	2.949
C	13	2.8462	4.018	4.0000	3.6742	2.2308	1.481

LS_1 = Life Skills 1

LS_2 = Life Skills 2

C = Comparison

Table 2

Two-way Anova for Conduct Problem Data

Involving 3 (Groups) x 3 (Times of Testing)

Source of Variation	SS	df	MS	F	Probability
Group	4.238	2	2.119	0.092	0.913
Error (between)	693.59	30	23.12		
Time	26.622	2	13.311	3.158	0.050*
Two-Way Interactions	4.610	4	1.152	0.273	0.894
Error (within)	252.87	60	4.215		

* Significant at $\alpha \leq .05$

to Conduct Problem scores. Multiple comparisons of the means of the Main Effect across Times indicated a significant difference in Conduct Problem between Times 2 and 3. (p < .10, see Table 3). The difference is depicted graphically in Figure 2.

Hypothesis 2

Hypothesis 2 states that there will be a significant decrease in scores on the Personality Problem sub-scale of the Behavior Problem checklist of students in the experimental groups (LS_1, and LS_2) following the intervention program. A summary of the descriptive statistics for Hypothesis 2 is presented in Table 4. From the results of the two-way anova (see Table 5) it can be observed that a significant two way interaction occurred between Groups and Times of Testing relevant to Personality Problem scores. (p < .05) Multiple comparisons of the means of the interactions were made to locate the sources of difference. A significant difference in PP was found for Group LS_1, across Times of Testing between Times 1 and 2 and Times 1 and 3 (see Table 6). A significant difference was found for Time 1 between Groups LS_1 and LS_2 and LS_1 and Comparison (p < .10, see Table 7). The difference is depicted graphically in Figure 3.

Table 3

Scheffé Test - F Values for Pairs of Means

on Conduct Problem

Time of Test	1	2	3
1	---	4.154	0.130
2	4.154	---	5.752*
3	0.130	5.752*	---

* Critical $F_{.10} = 4.98$
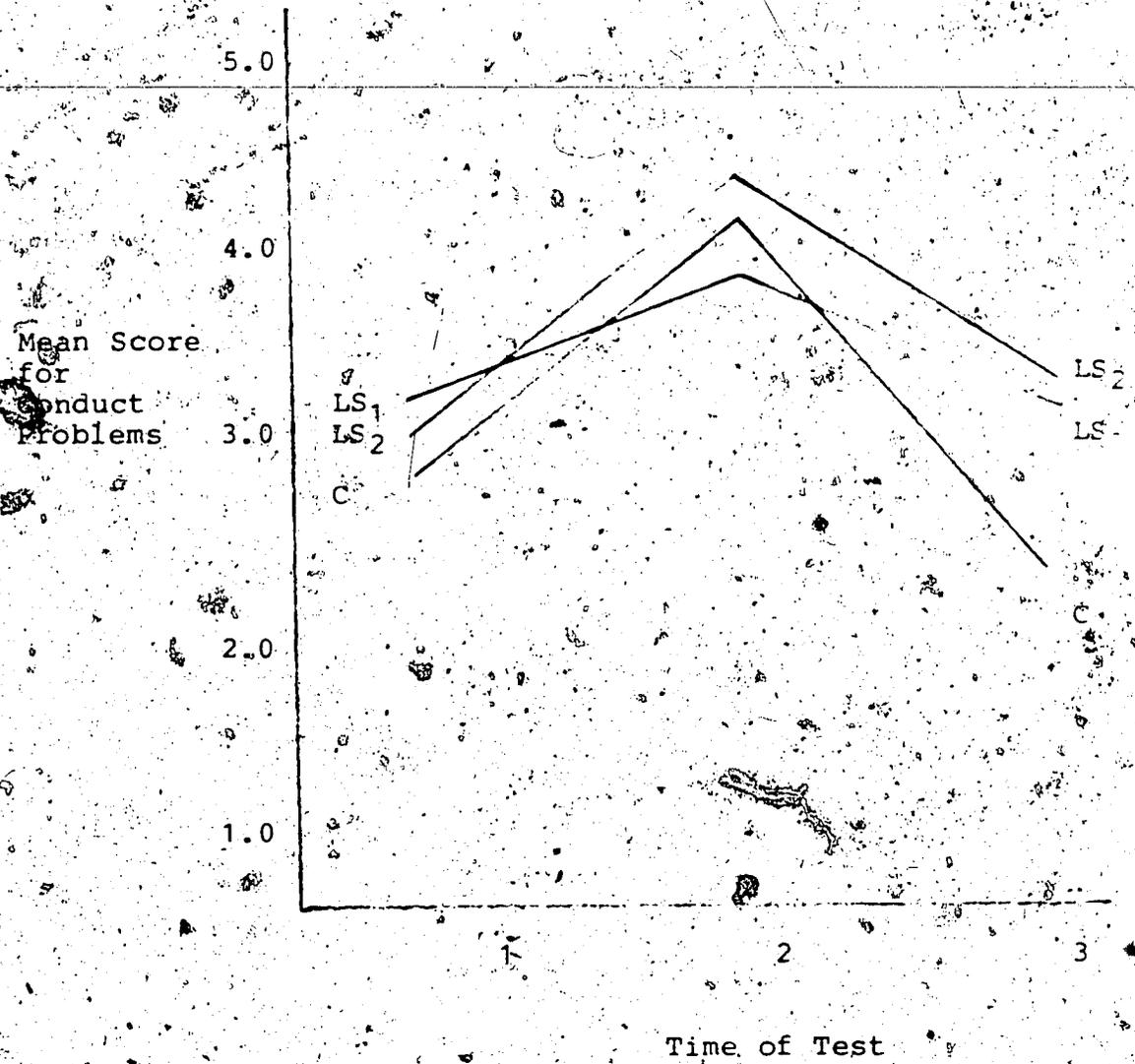
Figure 2. Mean score on Conduct Problem for three groups at three test times.

Mean Score for Conduct Problems (y-axis: 1.0, 2.0, 3.0, 4.0, 5.0)

LS₁
LS₂
C

Time of Test (x-axis: 1, 2, 3)

LS$_1$ = Life Skills 1

LS$_2$ = Life Skills 2

C = Comparison

Figure 2. Mean score on Conduct Problem for three groups at three test times.

LS₁ = Life Skills 1
LS₂ = Life Skills 2
C = Comparison
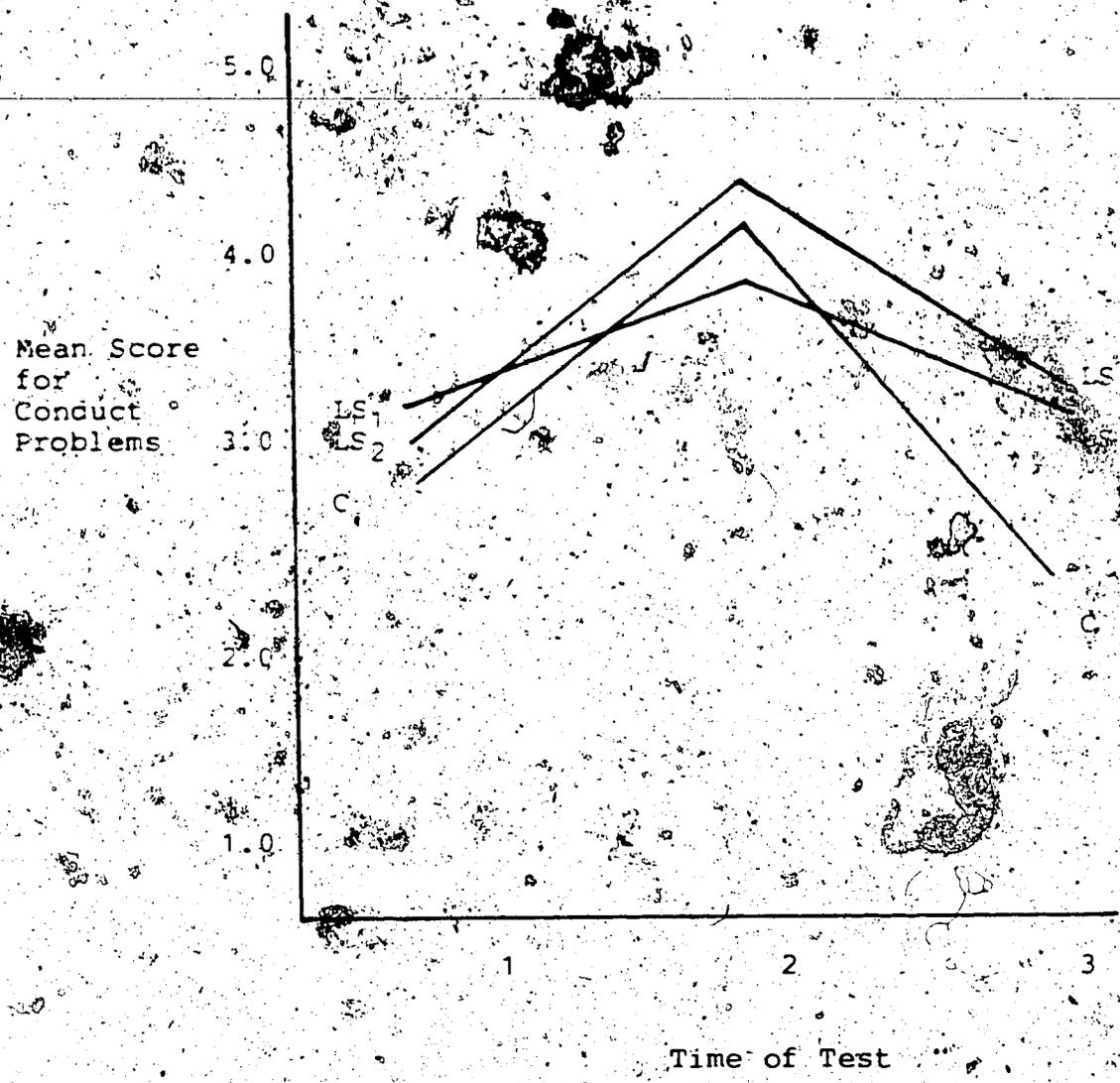
LS_1 = Life Skills 1
LS_2 = Life Skills 2
C = Comparison

Figure 2. Mean score on Conduct Problem for three groups at three test times.

Table 4

Means and Standard Deviations for Personality Problem Data

for Three Groups across Three Test Times

		Test Times					
		1		2		3	
Group	N	Mean	SD	Mean	SD	Mean	SD
LS_1	11	4.0909	2.844	2.2727	2.6112	1.7273	1.794
LS_2	9	1.4111	1.364	1.6667	2.7386	1.3333	2.2291
C	13	2.0769	2.565	1.3077	1.7022	2.3	2.873

LS_1 = Life Skills 1

LS_2 = Life Skills 2

C = Comparison

Table 5

Two-way Anova for Personality Problem Data

Involving 3 (Groups) x 3 (Times of Testing)

Source of Variation	SS	df	MS	F	Probability
Group	28.654	2	14.327	1.104	0.345
Error (between)	389.367	30	12.979		
Time	8.999	2	4.499	2.221	0.117
Two-Way Interactions	32.248	4	8.062	3.979	0.006*
Error (within)	121.564	60	2.026		

* Significant at $\alpha \leq .05$

Table 6

Scheffé Test - F Values for Pairs of Means on

Personality Problem for Group 1 (ES_1)

Time of Testing	1	2	3
1	---	8.962*	15.169*
2	8.962*	---	.8092
3	15.169*	.8092	---

* Critical $F_{.10}$ = 6.54

Table 7

Scheffé Test - F Values for Pairs of Means on

Personality Problem for Time 1

Time of Testing	1	2	3
1	---	21.51*	11.933*
2	21.51*	---	2.281
3	11.933*	2.281	---

Significant F Value $F_{.10} = 6.54$
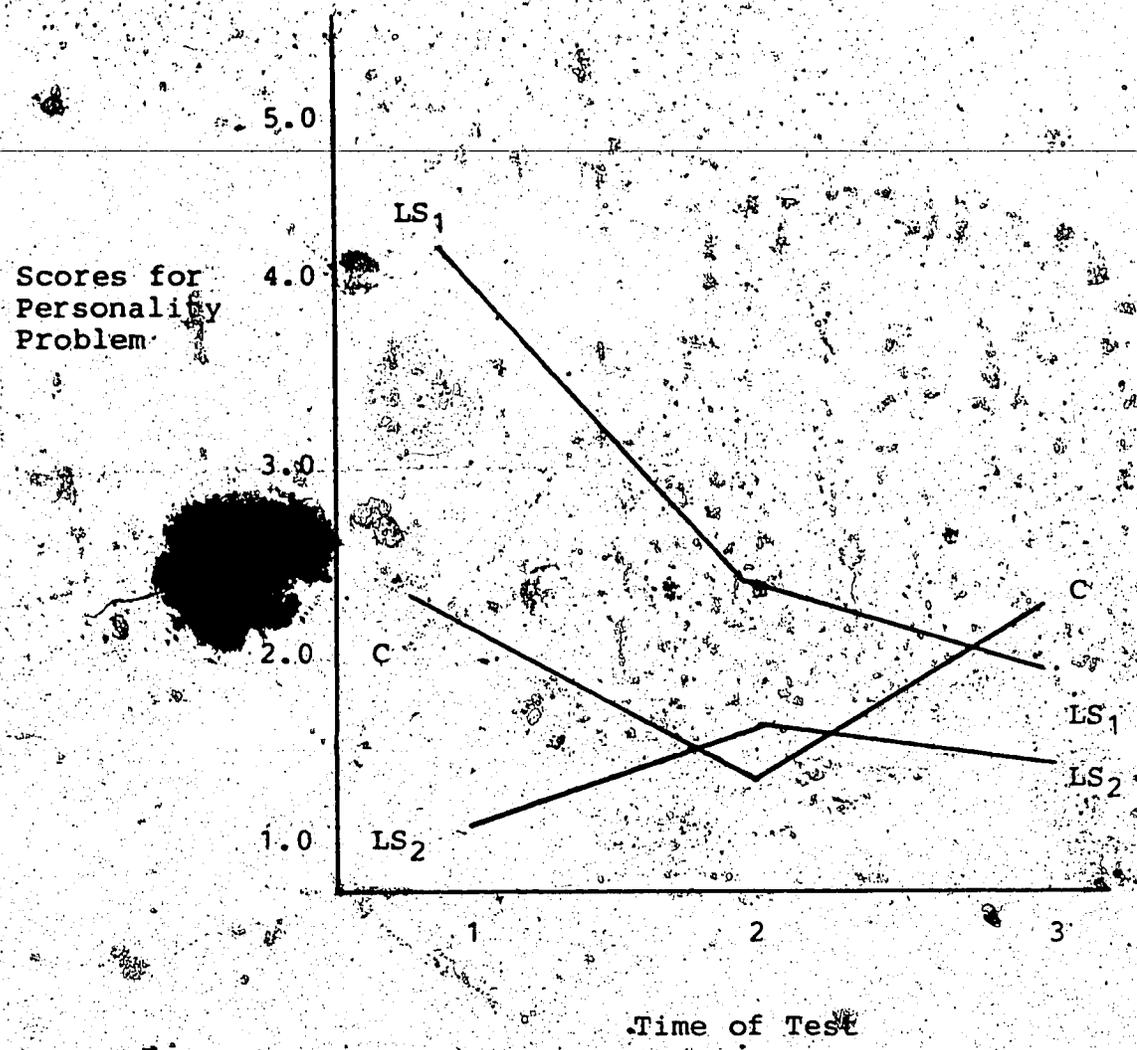
Figure 3. Mean score on Personality Problem for three groups at three test times.

Hypothesis 3

Hypothesis 3 states that there will be a significant increase in level of self-esteem, as measured by scores on the Self Esteem Inventory, of students in the experimental groups LS_1 and LS_2 following the intervention program. In Table 8 a summary of the descriptive statistics for Hypothesis 3 is presented. The results of the two-way anova are shown in Table 9 and inspection of that Table indicates that a significant Main Effect (Time of Testing) was found relevant to level of Self-Esteem scores (p <.05). To locate the sources of difference multiple comparisons of the means across Time of Testing were made. A significant difference in level of self-esteem was found between Times 1 and 2 (p < .10, see Table 10). A graphic representation of mean level of self-esteem scores is presented in Figure 4.

Although no formal hypotheses were made relating behavior and/or change in level of self esteem following the Life Skills program to the number of times students received an internal school suspension, data from the discipline program were of interest and are presented in summary form in Table 11. A graphic representation of that data is depicted in Figure 5 for the length of time the program was in place. From Table 11 it can be observed that February and March were peak periods for students in LS_2 and the comparison group, and that all groups peaked in May, when the highest number of ISS for the three groups was recorded.

Table 8

Means and Standard Deviations for Level of Self-Esteem Data

for Three Groups across Three Test Times.

		Test Times						
		1		2		3	
Group	N	Mean	SD	Mean	SD	Mean	SD
LS_1	11	15.7273	5.081	16.6364	3.2023	16.1818	5.326
LS_2	9	14.1111	4.372	16.5556	3.3208	15.6667	4.796
C	13	16.0769	4.425	17.2308	3.5859	16.3846	4.629

LS_1 = Life Skills 1

LS_2 = Life Skills 2

C = Comparison

Table 9

Two-way Anova for Level of Self-Esteem Data

Involving 3 (Groups) x 3 (Times of Testing)

Source of Variation	SS	df	MS	F	Probability
Group	208.980	2	104.490	0.220	0.804
Error (between)	14227.790	30	474.263		
Time	364.254	2	182.127	3.730	0.030*
Two-Way Interactions	86.240	4	21.560	0.442	0.778
Error (within)	2930.000	60	48.833		

* Significant at $\alpha \leq .05$

Table 10

Scheffé Test - F Values for Pairs of Means on

Level of Self-Esteem

Time of Test	1	2	3
1	---	6.853*	1.642
2	6.853*	---	1.786
3	1.642	1.786	---

* Significant F Value $F_{.10} = 4.98$
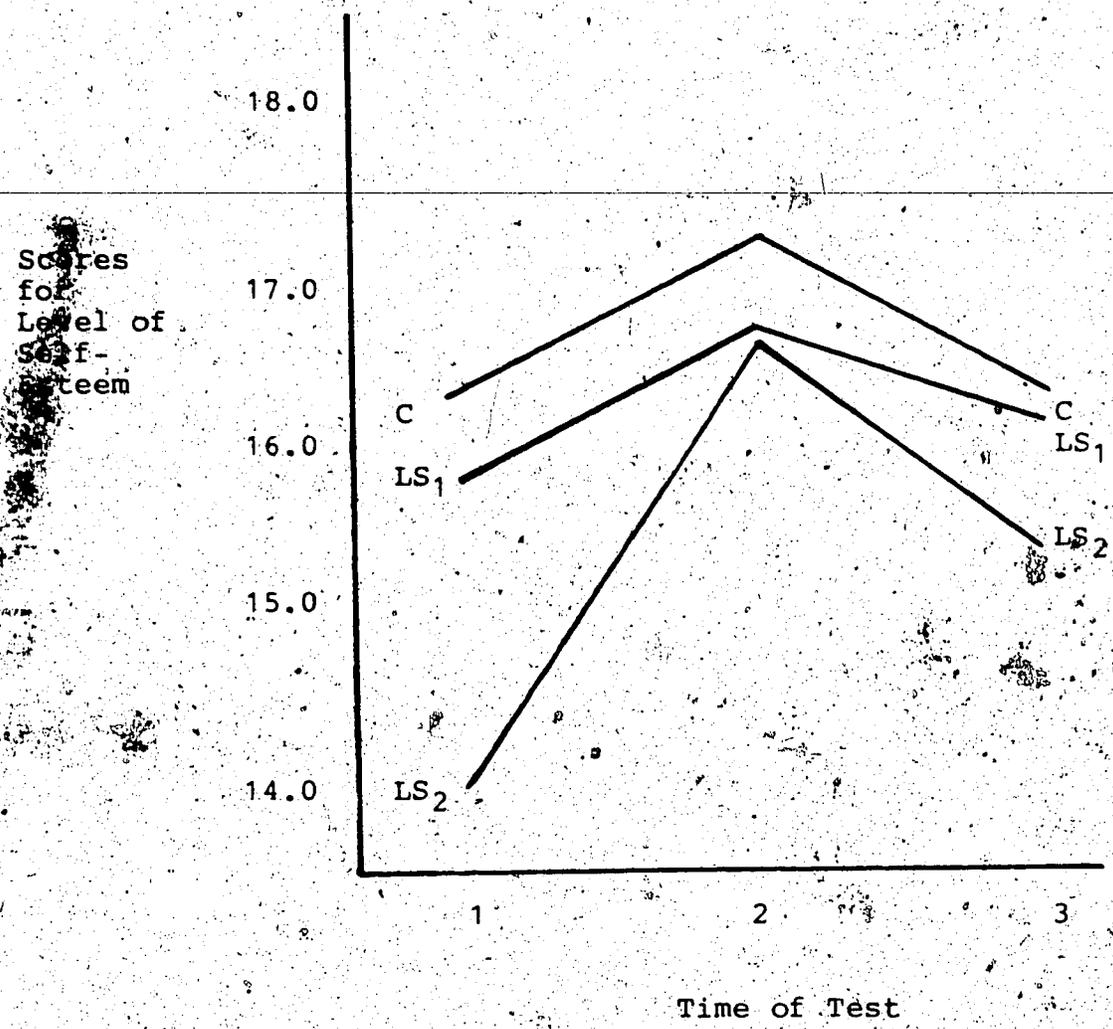
Figure 4. Mean score on Level of Self-Esteem for three groups at three test times.

The ISS program was terminated at the end of the first week in June. Overall the mean number of ISS for LS_1 is lowest and that of LS_2 is highest.

Table 11

Summary of raw data: number of times students

received Internal School Suspension

						Monthly Totals				Week 1
Group	N	Total ISS	X	S.D.	Range	Feb.	Mar.	Apr.	May	June
LS_1	11	34	3.1	2.29	0-7	7	6	9	12	2
LS_2	9	40	4.4	5.0	0-11	7	15	5	10	5
C	13	46	3.5	4.0	0-10	15	9	3	16	4
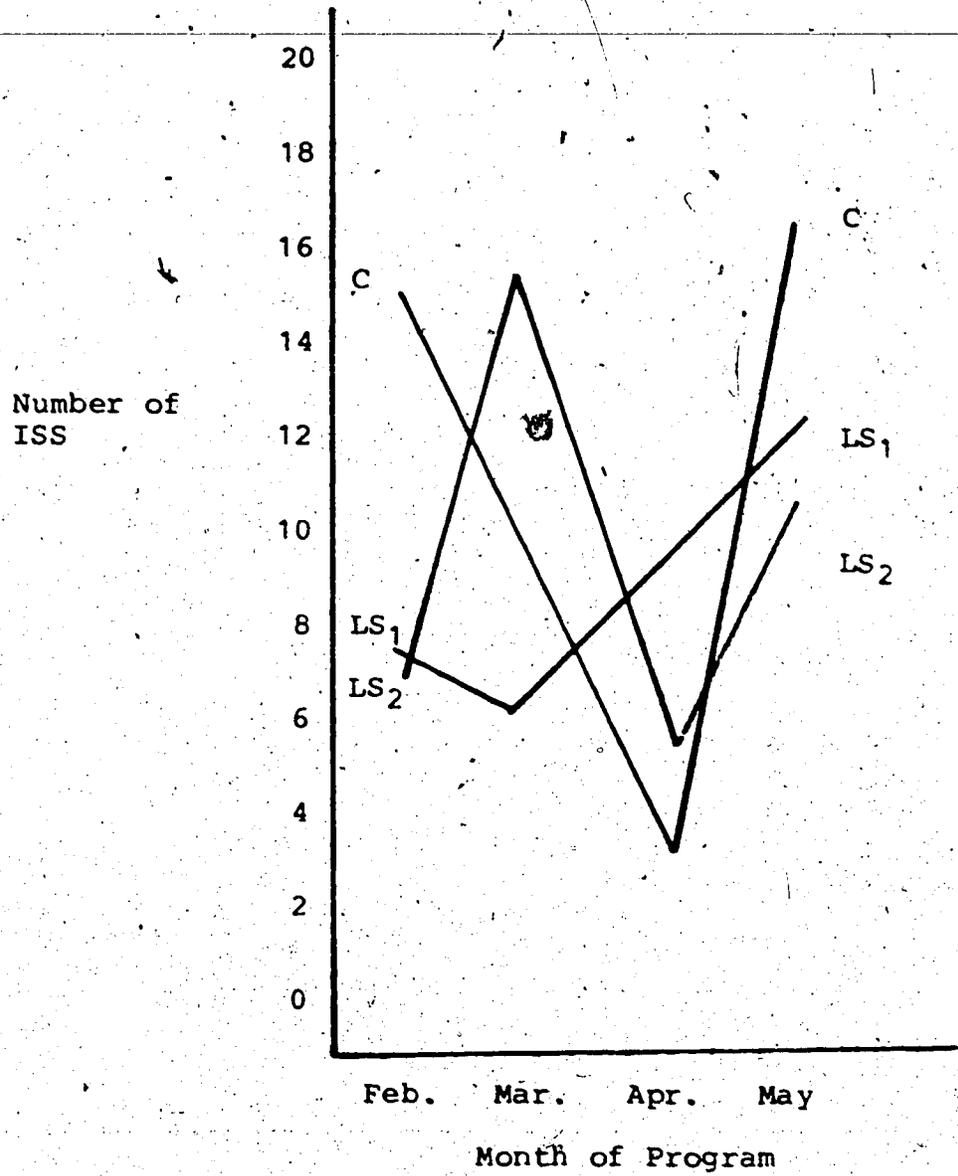
Figure 5. Internal school suspension raw data by group and month.

LS$_1$ = Life Skills 1

LS$_2$ = Life Skills 2

C $=$ Comparison

CHAPTER V

Summary and Discussion

In chapter four the results of the analyses of the data were outlined. In this chapter a summary of the study and its results, as well as a discussion of the findings, will be presented. In the discussion section reference will be made to some of the anecdotal comments made by the Life Skills participants. Implications of the findings and some suggestions for further research will be given.

Summary of the Study

The purpose of the study was to discover the effects of a social skills training program on the behaviors and levels of self-esteem of a group of educable handicapped adolescents. The training program, called Life Skills, was based on an educative, problem-solving model. The Quay-Peterson Behavior Problem Checklist provided four measures of behavior, two of which, Conduct Problem and Personality Problem, were used in the study. Students' level of self-esteem was measured by the Culture-Free Self Esteem Inventory. The number of times that students received an Internal School Suspension provided a further descriptive measure of behavior.

The subjects were 33 students (Mean age 15 years 1 month, Mean IQ 65) 11 of whom were in Life Skills one, 9 of whom were in Life Skills two and 13 students were in the comparison group. The assignment to the different groups

was not random, but was based on staff perceptions of urgency of need, IQ level and mix of behaviors. The latter was arranged so that each group would have a balance of acting out and withdrawn students. The training was given to LS_1 from January to March, to LS_2 from April to June and no training was given to the comparison group. Measures of behavior and level of self-esteem were taken at three test times, January, March and June. The data were submitted to two-way analyses of variance with repeated measures. The pre/post scores for each experimental group were compared. It was hypothesized that following Life Skills there would be a decrease in measures of problem behavior and an increase in level of self-esteem.

Summary of the Results

Hypothesis 1

For LS_1 there was no significant difference in the measure of Conduct Problem following the Life Skills program. There was a significant decrease in the Conduct Problem measure across the second and third Times of Testing, but the difference was for the combined groups and not for the experimental group (LS_2) alone. Examination of the data indicates that the scores of the Comparison group influenced the interaction considerably. Therefore, the decrease cannot be ascribed solely to the intervention as it was evident for all three groups. There was no significant difference between the three groups at any of the three test

times. Hypothesis 1 is therefore rejected as there was no significant decrease in measures of Conduct Problem following the intervention program.

Hypothesis 2

There was a significant decrease in the measure of Personality Problem for LS_1 following the intervention program. The significant difference was maintained over a three-month period. For the second experimental group LS_2 there was no difference following Life Skills. On measures of PP there was a significant difference between groups at test-time one. The measure for LS_1 at that time was significantly higher than that of LS_2 or the comparison group. The results therefore remain equivocal.

Hypothesis 3

There was a significant increase in level of self-esteem across test-times one and two for the combined groups, but the difference was not isolated for the experimental group LS_1 and the increase cannot be ascribed solely to the intervention. For the second experimental group LS_2 there was no increase in level of self-esteem following Life Skills. Hypothesis 3 is not supported by the results of these findings.

From the descriptive data of the school discipline program that was in operation over a seventeen week period, several points may be observed. (1) LS_1 had fewer ISS overall and there was less spread about the mean, (2) Rule

infractions for all groups were at their lowest during April and peaked during May, and (3) The June figure represented one week of ISS only and for that week the number of ISS for LS_2 and C was relatively high.

Discussion

The overall results of the study did not support the hypotheses. The rest of this section will deal with interpretation of the findings, and in attempting to understand them, the instrumentation used to measure behaviors should be considered.

Instrumentation

Behavior ratings were completed by staff who taught the students for a number of hours during the school week, either for academic or for vocational subjects. As well as the possibility of teacher bias influencing the ratings, it is also possible that different behaviors were accepted as appropriate/inappropriate for different subject areas. For example, "sitting still" is not required behavior in some vocational areas such as cooking or custodial care, whereas it is an expected behavior in many of the academic classes. The raw data obtained from the ISS procedure may also have been subjected to bias. Teachers may have chosen to ignore rule infractions such as "swearing" or "impertinence" (Appendix C) because of a belief in the behavior management principle of ignoring negative behaviors. Others may have

perceived the ISS procedures as lacking flexibility, and as
not allowing sufficiently for intra/interindividual
differences; with this belief they may have chosen not to
report students for infractions.

Self-report measures are subject to the influence of
social desirability issues. Exemplifying the issue, one
student commented to a peer while completing the SEI
inventory, "It's not right to say that your parents don't
like you". Many objected to the forced-choice answers:

Student A   That's not the way I feel about it-just 'yes'
or just 'no' - I feel kinda in between.

Student B   I don't want to have to say only this or only
that 'cos that's not the way it is. Sometimes
things happen and ya feel this way and some-
times the same things happen and ya feel like -
that way - exactly the opposite. It's not
fair. I don't wanna say yes or no!

Student C   It's too hard to say 'yes' or 'no', 'cos some-
times you feel like - right down the middle.
Maybe sometimes nearly 'no'...'yes'...I dunno!

Nonetheless, in spite of verbalizing these comments during
the group testing sessions, the students completed the SEI
because it was requested.

The need for a spring break during the school year is
generally voiced by most school staffs and students. It is
accepted as a popular belief that student misbehaviors tend
to increase in early spring, and also prior to school
holidays. The variable of position in time (of the school
year) and its effect on behaviors and feelings of self-
esteem, was not considered when formulating the hypotheses.

Pertinent to that variable it can be seen from Table 1 and

Figure 1 (pages 65 and 59) that the Conduct Problem measure

showed a tendency to rise prior to the school's spring break

for all three groups $(LS_1, LS_2$ and C) and to decrease

significantly following the spring break. The rising trend

in problem behaviors was accompanied by a rise on the

measure of ISS for students in LS_2 (Table II, Figure 5,

pages 66, and 82). Another trend from the ISS data was an

increase in the number of rule infractions for all groups

during May and the first week in June (when the program

ceased for the year). Those trends corroborate the popular

belief mentioned above.

Treatment Effect on Withdrawn Students

To interpret the significant treatment effect for LS_1

on the measure of Personality Problem and the non-signifi-

cant effect on the measure for LS_2 it may be helpful to

consider the difference between LS_1 and LS_2 on the PP

measure prior to intervention. For LS_2, although there were

no significant decreases in PP, the mean level was very low

prior to, and following the intervention (X = 1.5 for Times

2 and 3). The significant difference between the two groups

suggests that a higher level of PP needs to be present

before the intervention can be effective, as was the case

with LS_1. The null treatment effect for LS_2 should take

into consideration the very low mean score of LS_2 on this

measure. The frequently found characteristics of the

student who has a high measure of PP, come under the rubric
of anxiety-withdrawal, and as Gresham (1981) pointed out,
the individual is more disturbed than disturbing to others.
Withdrawn, shy and isolated students have responded to
social skills training, especially to the learning of dis-
crete behaviors such as body position, voice tone and state-
ments of greeting. (Rinn and Markle, 1979, Oden and Asher,
1977) Life Skills program appears to have met this need for
this type of student, and in the study the students main-
tained the decrease over a three-month period.

Treatment Effect on Acting-out Students

Aggressive, acting out behaviors fall under the rubric
of Conduct Problem. Gresham (1981) suggested

> Because the mentally retarded, as a group, have
> deficits in conceptual and language skills, verbal
> instructions such as coaching might not effectively
> control aggressive behavior in this population. (p.
> 164)

However, the Life Skills coaches in the school were familiar
with the students' intellectual and academic abilities and
adapted the curriculum concepts of the training program to
achieve an appropriate match with students' conceptual
levels. In this study those acting out behaviors appear to
have been most influenced by the position in time of the
school year that the measures were taken. Prior to Spring
break, Conduct Problem measures for all three groups (LS$_1$,
LS$_2$ and C) were the highest recorded during the study.
Immediately following the holiday those problems, as

measured on the ISS, were relatively low. As time passed, acting-out behaviors increased as measured on the ISS, whereas they decreased as measured on the Behavior Problem Checklist.

This kind of problem, that of fluctuating behaviors, with periods of calm followed by periods of "sturm und drang" are familiar phenomena to most teachers and for most school populations. The ebb and flow of students' behaviors within the school year relate to the school holidays in a direct way.

MA and CA Comparisons

Quay and Peterson (1979) reported means and standard deviations on the BPC subscales for a wide range of sample populations, and in reviewing their Tables, comparisons to the reported scores were made using both mental and chronological ages (MA and CA) for the students in this study. The issue of whether to use MA or CA comparisons when researching in the area of mental retardation has long been a dilemma. The overlap in boundary definitions of an EMH population has been considered and for this study the preference of the author was to make CA comparisons. The L.Y.Cairns students were expected to act like adolescents by the school and the larger society. Their interests and preoccupations were those of adolescents, not grade 3-6 students. Many students held regular jobs out of school and had family responsibilities and experiences commensurate

with their chronological ages. However, behavior problems
had been an issue at L.Y.Cairns (as they are in many urban
junior high schools) hence the introduction of the ISS
program. School personnel were concerned not only with the
need for a clear delineation of school rules and consistency
in dealing with rule infractions, but also with the need for
students to take responsibility for their actions. The
problem-solving component of ISS was incorporated into the
ISS program to encompass that need.

However, inspite of the personal preference when
reviewing the Quay and Peterson (1979) tables and when
comparing both MA and CA equivalencies of L.Y.Cairns
students' scores, it was observed that the three groups'
scores on CP and PP were more similar to those scores
reported for unselected public school students in grades 4,5
and 6 (MA equivalents), than they were to the scores of
adolescents in specific sample populations (CA equivalents).
The latter populations included students referred for
behavior-problems and students who were diagnosed as aggres-
sive or withdrawn. The sample populations described could
be considered as relevant to the students in this study on
behavioral variables, but not on an IQ variable. It was
observed that for those populations (aggressive, withdrawn,
behavior problems) the means of the samples were two or
three times higher on CP and PP than those obtained in the
present research. The difficulty of comparability of

populations under study is evident and Quay and Peterson
cautioned

> Because the frequency of rated deviant behavior
> in children and adolescents is a function of many
> factors such as age, sex, ethnicity, social class,
> observational setting, characteristics of the rates,
> interactions among these and other influences yet
> to be documented, "natural" norms would have only
> limited utility .... Large scale use of the BPC for
> the identification of potentially deviant children
> clearly warrants the establishment of local norms."
> (1979, p.11)

What explanation can be given for the comparability of

students' CP and PP scores in this study to those of

unselected elementary school students, rather than to those

of young adolescents with average IQ but similar behavior

problems? One possibility is that of instrumentation relia-

bility, the lower reliability of the BPC for adolescents has

been referred to on page 45, although Reinert (1980) with a

contradictory opinion identified its usefulness for 7th and

8th grade students. Another explanation relates to

students' length of time at L.Y.Cairns. Students in the

study were part of the Intermediate program and most of them

were in their third or fourth year at the school, by which

time they are generally considered to have "settled down".

Much of the concern about acting out students at L.Y.Cairns

stems from the behaviors of the junior students, who are

just "settling in". This is corroborated by the fact that

during the same time period as this study students in the

Junior years received three times as many ISS as did those

in the Intermediate years. Thus, if the students in the

study were rated by teachers who also taught junior

students, it is possible that the problem behaviors of the

Intermediate students may have been perceived relative to

the more ebullient behaviors of the Junior students, and as

a consequence the Intermediate students were given lower

ratings.

Contrary to the reported findings of sex differences on

measures of CP (boys scored higher on this measure, Quay

and Peterson, 1979) that finding was not corroborated in

the present study. All measures (CP, PP and SEI) were

analyzed for significant differences by sex and none was

found.

Level of Self Esteem

Noteworthy to the study is the fact that students'

scores on the SEI were low compared with the percentile

ranks and T-scores reported by Battle. (1981) When an MA

comparison was made, the rankings for the L.Y.Cairns

students ranged from 22 percentile to 50 percentile and for

the CA students' comparison, the percentiles ranged from 14

percentile to 30 percentile. A large part of the school's

curriculum and student activities are designed with the

objective of increasing students' level of self-esteem. A

rise in level of self-esteem for the combined groups' scores

across test-times one and two would be a partial realization

of that goal. The increase was maintained but the

assumption that this rise was due to the intervention cannot

be supported. However, students' comments indicated the

positive feelings they held about their experiences in Life

Skills. These positive feelings were reflected not only in

the students' perceptions of what they learned, but in the

unsolicited comments of the way they felt about the Life

Skills coaches.

> I learned to talk. I never talk much and I learned the
> teacher liked me. That's the best teacher I ever had-
> ever!

> Well, I didn't learn nothing but the teacher was OK.

> (coach's name) was real neat-liked us all a lot.
> Made us grow up and think straight.

> I didn't like the fighting -too much (not physical
> stuff - just words) but I guess it was OK. (coach's
> name) liked us all anyway.- even when we were bad.

> Ya felt good because the teacher was so nice - liked
> all of us and me too - I knew it, ya' just felt it.

Reference has been made to students' objections to

forced-choice answers, and the possibility exists that their

self-reports were not true indicators of their feelings

about the statements they were required to answer. The use

of SEI sub-scales instead of the total SEI score might have

pointed to factors that were the significant contributors to

the low total score. The lack of measured change on the SEI

is supported by similar results in studies by Riche (1980)

and Lloyd (1979). In the former study 30 EMH students (Mean

age=16years 3 months, Mean IQ =69.8) were randomly assigned

to one of six groups. Five groups received work skills

and/or social skills training in different sequences for

eight weeks. No significant changes from pre-to post-testing were found on measures of self-esteem, neither within nor between groups. Lloyd examined the effects of Life Skills (Saskatchewan Newstart) on several groups including adolescents in an institutional setting for the behaviorally disturbed (N = 3, age range 13-16 years) and students in an alternate day school programme (N = 6, age range 13-15 years). The training was given half-days; five days a week for twelve weeks. No significant changes in level of self-esteem were reported for either group. A further comment that has been referred to by Camp and Bash (1981) is that schooling is but one part of students' lives and that some students experience such complex and difficult lives outside school that even the most positive school experience could not provide a counterbalance.

Students Perceptions of the Life Skills Experience

Several themes emerged from the comments made by students following their participation in the intervention program. Included in those themes were students' perceptions of their own changed behaviors, their awareness of an increased range of problem-solving skills and their good feelings about themselves. Representative comments from those themes follow:

Student E. I guess I learned a lot in there - like how to
cope with other people. People who bug ya'
really bother me. Now, and in there, if
someone's bugging me I learnt how to handle it.
I control my anger. I'm not trying to put
people down, too.

Student F. I used to swear a lot - now I don't swear -
well - not nearly so much. I control myself.
I hardly swear at all.

Student G. When ya have problems it's good to talk about
them. I really learned to listen and to talk.
Ya look at people and listen then they listen
and then ya talk about the problem and ya work
it out. That way then there's no fighting.
Boy we had a lot of fighting in there first -
then it got better 'cos we really learnt to
talk and listen.

Student H. I really like it - I wanna do it again, but I
got to wait - but it was good - it made ya'
feel good.

Student I. I've changed, I'm not sure how, I can't tell
you. I have but I don't know how. My parent
say I've changed too.

These comments reflect sensitivity and awareness of
others that augur the development of pro-social behaviors.

> Pro-social behavior is linked to the development
> of age-appropriate role-taking or perspective-taking
> skills ...... a variety of forms of social deviancy
> are associated with persistent egocentric thought
> Persons demonstrating developmental delays in the
> acquisition of these skills have been shown to
> systematically misread societal expectations, to
> misinterpret the actions and intentions of others,
> and to act in ways which were judged to be callous
> and disrespectful to the right of others.
> (Chandler, 1975, p. 326)

It is suggested that the misinterpretation of actions and

intentions of others, and misreading of societal expecta-

tions have resulted in many of the inappropriate behaviors

of the students referred for Life Skills. The comments

presented indicate not only the positive perceptions of many

students following the intervention experience, but also

increased skills of perspective taking and less

egocentricity of thought.

Student It was helpful, that eye contact stuff. I
never realized before. I never looked at
people. Now I know how to look and listen
properly - and I know when they're listening to
me and I know what it feels like when people
don't show they're really listening.

Implications of the Study

The success of the cognitive mediational models in

effecting behavior change has been previously attested to.

(Kanfer, 1975, Meichenbaum, 1979) The Life Skills model

utilized not only cognitive processes but a wide range of

affective and behavioral processes and techniques, including

reinforcement, feedback, role-play and modeling. In this

study the program was adapted to meet the needs of the EMH

adolescent. It was successful in reducing those behaviors

associated with the construct Personality Problem, when

those problems were substantially present. The construct

encompasses the behaviors of shy, withdrawn and anxious

students, the student who is generally "less aversive to

adults and peers and is less likely to excite the environ-

ment into action." (Quay and Werry, 1979, p. 18) The

selectors' perceptions were that more students in LS1

functioned at a lower intellectual level. This perception

was not supported by data analyses. However, LS_1, differed

significantly from the other groups on measures of

withdrawn, anxious behaviors. It is possible that those

behaviors were perceived as being associated with lower

intellectual functioning.

The effectiveness of the Life Skills program for those

students with measures of Conduct Problem, which include

either verbal or physical aggression and generally implies

poor social relationships, was not substantiated. The

importance of the above finding has significance. Adults

who have been identified as having conduct disorders (CP) as

children and adolescents have been found more likely to

evidence indications of social dysfunction than those

identified as withdrawn and anxious. (Quay and Werry, 1979)

The presence of behaviors subsumed under the Personality

Problem rubric "seems not nearly so predictive of later life

difficulties." (p. 36) Thus, the priority for increasing

social skills of the acting out (CP) student is paramount.

Students may have verbalized their learnings "It taught us

how to control ourselves especially when we got angry," but

whether they were able to execute those learnings remains a

moot point.

Most of the participants commented on their regret at

missing Physical Education classes whilst they were taking

Life Skills. The energy level of acting-out students is

often high and although alternative intramural physical

activities were available for some students, the physical

education program meets specific needs for the aggres-
sive/acting out students, such as the ability to express

themselves physically in a controlled situation. This may

indeed have interfered with any reduction of conduct

problems in a general sense.

Few students were able to answer the question "Do you

know why you were chosen to take part in Life Skills?"

other than by responding "The teacher thought it would be

good for me." The exceptions were one student who was told

that they would be a good model for the group, and another

who said, "Because I'm bad and always getting into trouble".

The necessity of identifying for the student those specific

behaviors that merit improvement is important and should be

considered by the selectors so that students may have

specific and realistic referents. No mention was made by

participants of any stigma attached to having been in Life

Skills. That there were no negative connotations was a

positive indicator of Life Skills' position in the L.Y.

Cairns curriculum and was contrary to the "Why me?" concerns

mentioned by Rotheram. (1981) She suggested integration of

the social skills program to avoid that syndrome "Presenting

the social skills package as a component of the typical

school curriculum is crucial." (p.101) Combs and Slaby

(1977) added that no effective research could take place

when social skills had not been trained and practiced within

the "normal" peer group setting. They argued not from

concerns about the "Why me?" syndrome but from the belief
that for social skills learning to be effective, the popu-
lation must include some strong role models and be as
naturalistic as possible. The issues of transfer and
generalization then become less insurmountable.

Throughout the study the third group (C) has been
referred to as the comparison group because of the
implication that the problems of the students in experi-
mental groups were greater and needed more immediate
attention. This proved not to be so. With the exception of
the measures of Personality Problem in LS_1, there were no
significant differences between groups on measures of SEI,
CP, IQ and sex at the onset of the study. The comparison
group can therefore be considered an adequate control for
the experimental groups.

Suggestions for Further Research

The complexity of definition of the social skills/
social competence construct makes the issue of valid and
reliable assessment equally difficult. The limitations of
behavior ratings have been presented, and the situational
specificity of socially acceptable behavior increases those
limitations. One way to overcome some of the assessment
problems would be to employ a wide range of instruments and
techniques. Behavior ratings could be completed by indepen-
dent observers from different settings including home and
community. The lack of parental and community validation of

the students' scores on the ratings was felt to be a deficit of this study. Students at L.Y.Cairns take part in work experiences both within the school and in community vocational placements. Evaluation procedures from those situations would have provided useful additional measures. Opinions solicited from the students themselves about their perceptions of their skills/competencies could have added an important dimension to our understanding and could have direct implications for programming. Monson, Greenspan and Simeonsson (1979) found a significant relationship between children's reports of their own social competence and traditional measures of intellectual development such as IQ and MA. Such information would be helpful in determining needs and defining homogeneity of populations. Diverse needs might best be met with different programs.

Information derived from student identified competencies would also be valuable and would encompass the philosophic stance presented by Wine (1981) and outlined in chapter two. By identifying and enacting a variety of interpersonal situations where skills/competencies are clearly needed, and using the responses of the most skillful EMH adolescents, a basis for formulating rules and guidelines for a social skills program geared to their needs and experiences, could be developed. This follows the model produced by Cox and Gunn (1981) where the Keep Cool Rules derived from assessment results. The difference suggested

here is that the situations developed would have relevance
for the EMH student. Had there been several experimental
groups, each utilizing a different program for social skills
training, their differential effectiveness could have been
observed.

There are some problems that still require the
attention of future researchers. More information and data
are needed from empirical studies to show which behaviors
are critical in social transactions, without ignoring the
developmental aspect necessary for such a classification
system.

Generalization of learned skills becomes less of a
critical issue when the training is given to all members of
the (school) population. However, maintenance of those
skills still warrants attention. Short follow-up periods
from four weeks to three months have been mentioned in many
studies, but other projects have had none. Longer follow-up
periods do present the difficulty of other intervening
variables but are still needed.

In recent research the use of multiple outcome measures
has been stressed. (Gresham and Nagle, 1980) The addition
of sociometric as well as behavioral measures in this study
would have added knowledge to the body of research which
suggested strong correlations between those measures and
endorsed the utility of combining them when investigating
the construct of social skills.

Conclusions

Educable mentally handicapped adolescents, identified by members of their school staff as being in need of social skills training, took part in a twelve week intervention program. A problem-solving model, Life Skills, was used. The intervention did not result in significant decreases in acting out behaviors nor in significant increases in level of self-esteem. For students with substantial measures of anxious behaviors, Life Skills training did effect significant decreases in these behaviors. These decreases were maintained over a follow-up period of three months. The suggestion was made that future research with an EMH population should experiment with several different types of intervention programs to compare their effectiveness at developing and maintaining social skills. The importance of possessing adequate social skills as prerequisites to establishing mutually satisfying interpersonal relationships and to being able to participate as a member of the larger society cannot be overemphasized.

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APPENDIX A

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Sample of Part of Life Skills Lesson

Lesson: Giving and Receiving Feedback

Time: 2 hours

SELF

Overview

In this lesson, the student practises the skill of describing feelings begun in earlier lessons and begins to give and receive feedback about specific behaviors displayed while describing feelings. The lesson helps the student develop awareness of his interactions with others so that he can later identify problems in interpersonal relations as well as identify skills to help in solving these problems.

Sometimes students do not see the need to describe feelings. If this failing appears at any time in your group, you might explain to them that things happen when we can describe our feelings: first, we learn that other people accept them; second, we get a clearer recognition of them; and third we get a release from the control they have over us. If for example, we say of a certain situation, "That makes me angry and I feel my blood rising," the act of having named our feeling and having described its effect on us helps us gain mastery over it.

Resources Required

Blindfolds

A copy of Ranking of Expression of Feelings for each student

Objective

Each student discusses comparisons of rankings, against other students, and participates in role play analysis to practise the skill of giving and receiving feedback.

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Advance Preparation

Prepare a flip chart page like the Sample Tabulation Form for Ranking, Expressing Feelings shown in the lesson supplement.

Stimulus

Ask the students to sit in a circle. Outline the first exercise. "In this simple exercise each one of us puts on a blindfold. Do that now, and then I'll tell you what happens next." After giving a few moments to get adjusted, prepare the group by saying, "We are going to be silent for 5 minutes. During this time, let your mind wander to anything you wish, but ask yourself a couple of times during the silen 'How do I feel? Think about your body; arms, legs, fingers, toes, seat, even your hair. Try to identify how your body expresses your feelings. At the end of the 5 minutes, I will comment on what I a and I'll ask you to do the same. We will leave the blindfolds on the comments." Arrange for a person outside the group to signal when the 5 minute period has passed.

Evocation

When the time has elapsed, describe your feelings. You might sa "I felt very relaxed. I could feel my arms getting heavier. My hand felt detached. My seat felt numb. My eyes and head felt heavy. I felt like I might go to sleep or just fall off my chair face down." After describing your feelings, pause and wait for others to follow. Allow students to give descriptions, thoughts and fantasies, but hel students name or describe feelings.

Following the discussion, tell everyone to remove his blindfold. Ask the group to think of how well each person described his feelings. Distribute the form Ranking of Expression of Feelings and the student rank each other according to how well they expressed feelings during discussion.

Objective Enquiry/Skill Practise

Skill Practise. List the results of the rankings on the fli: page you prepared in advance. (See: Sample Tabulation Form for Expressing Feelings). Ask the group to comment on the results.

To stimulate discussion point out tabulations that show the most consistency, say, all high or all low scores; or the least consistency, say, a mixture of high and low scores. Ask, "What do you think these scores show?" or "What does this mean?" Encourage statements explaining the reasons for rankings. "What did he do or say? How did he express himself? What words did he use? What posture did he have when he spoke?" In this way, promote skill development in giving feedback by describing behaviors instead of labelling people.

You can expect some students to ask questions like, "What is the right answer? How should we have ranked him?" Some may even change their own ranking merely to make it conform with rankings made by others. Help the group realize that no one has "right or wrong" answers; the rankings show the different ways people see each other. Help students who received a low ranking to handle the feedback.

Skill Application

Following the discussion of rankings in the objective enquiry, remove the results of the rankings from the flip chart. Summarize the activities of the session: the blindfold exercise, the discussion which followed, the ranking of group members and the discussion after that. Ask students to comment on the experience and on specific behaviors observed about himself or others during the session. Ask each one to describe how he feels now, particularly how he feels about being compared to others by the use of ranking. Ask how this differs from real life experiences. Ask, "Do we rank each other in life? Do we compare ourselves to others? Even though we do not usually put ranking in writing, do we compare people? How do we do this? Do our behaviors as well as our words compare people? What are these behaviors? Do you think our impressions or perceptions of how we compare are always accurate? Do you believe we are always honest with others when they ask us how they did? Should we be? Do we always think about how we tell others, either in words or by our behavior? How could we improve our skills?"

Present the objective. Review each process in the objective and tell the students how their practise in the lesson has prepared them for skill development in this respect. Encourage the students to ask questions about the exercises in the lesson. If they question the relevance of the skill of describing feelings, use the argument presented in the overview to this lesson.

Say to the students, "Remember how we gave feedback on the rankings? We spoke of what people did. We did not call them names. We worked only on how well people described their feelings. Let's try it another

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way: we can do some role plays to produce feelings." If necessary,
explain to the group the meaning of the term. Continue, "One volunteer
plays the part of a store clerk, and one plays the part of the dissatis-
fied customer. Suppose you bought some bread in a store. Last week
the bread had mould on it, and this week you found a piece of string
in a loaf. Now you come in and you want to tell the clerk about your
irritation." Instruct the rest of the group to watch for the ways and
words that the customer uses to express his feelings. Videotape the
role play, and stop the action when you have useful footage. Play the
videotape for the benefit of the players, encouraging comment from them
as they watch the feedback. Ask the other students to give feedback on
the ways in which the "customer" expressed his feelings. Encourage them
to watch for words and behaviors and to avoid judgements like, "Boy, he
sure was mad." Repeat these role plays and the analyses with other
students as long as interest seems high.

Evaluation

Explain, "In the learning group, we practise giving and receiving
feedback to learn more about ourselves. We observe the effect we have
on others and the effect others have on us." Ask, "What problem do
we share? How are we dealing with it? What else might we as group
members do to help each other? Tell them that you will try, and you
hope others will try, to practise the skill of giving and receiving
feedback to each other.

APPENDIX B

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Questions asked of Life Skills Participants
in Individual Interview

1. How was it for you when you were in Life Skills?

2. What do you think you learned most while you were there?

3. What did you like most about Life Skills?

4. What were the things you didn't like?

5. Do you know why you were chosen?

APPENDIX C

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Internal School Suspension Information

What Behaviors Will I Be Sent to the ISS Room For?

Unacceptable behaviors that anybody, if they are there, can see or hear you doing.

1. LATES: The 3rd time late for a class means going to the ISS room to write a plan. Late is 3 minutes after the bell.
   ABSENCE: Being away from class without a good reason.

2. ABUSE
   PHYSICAL ABUSE: Behaviors such as: hitting, running (in halls and in the class room), biting, kicking, spitting, shouting, screaming, touching in public in inappropriate ways or places, using a weapon, which cause physical harm to self or others.
   EMOTIONAL ABUSE: Behaviors that hurt you inside or hurt someone else; for example , put down ("you stink", "you're retarded") Emotional abuse could be either in a verbal or a gesture form.

3. PROPERTY ABUSE (VANDALISM)
   Vandalism involves any damages, misuse or theft of a public or personal property; for example, throwing things, marking halls, breaking windows or doors or lockers, slashing bus seats, misuse of bathroom facilities, physical education equipment or A.V. equipment, malicious damage of student projects.

4. DEFIANCE OF AUTHORITY
   Refusing the reasonable requirements of a person or persons in authority.

How Can the ISS Room Help Me?

The ISS room can help me to learn how to help myself correct my behavior.

Student Appeals

If I feel that I have not been treated fairly, I can appeal to the principal.

What Happens If I'm in the ISS Room During Lunch Time?

1. If I have lunch in my locker, I will pick it up on my way to the ISS room.
2. If I buy lunch, my lunch will be sent up from the cafeteria, which I will pay for.

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INTERNAL SCHOOL SUSPENSION FORM

STUDENT'S NAME: _____ DATE:_____

TIME:_____

Students are sent to the I.S.S. room for the following basic reasons:

1. Lates or absences.
2. Hurting or not respecting others or their feelings.
   (Hitting, threatening, swearing, etc.)
3. Stealing or damaging property, (Vandalism and theft).
4. Not doing what one is asked or required to do by those in charge.(Defiance).

_____ was sent to the I.S.S. room because

_____

_____

_____

Sending Teacher's Signature

The next time that I feel like_____

_____

_____

I plan to _____

_____

_____

_____

_____

Student's Signature

STUDENT RETURN COMPLETED FORM TO SENDING TEACHER

_____

Sending Teacher's Signature

SENDING TEACHER RETURN FORM TO I.S.S. AIDE

APPENDIX D

PART III
Table 1
Subscales of the Behavior Problem Checklist

Conduct Problem (CP)

Item No.	Item	Average factor loading
2.	Restlessness, inability to sit still	.60
3.	Attention-seeking, "show-off" behavior	.62
8.	Disruptive, tendency to annoy & bother others	.70
11.	Boisterousness, rowdiness	.66
16.	Dislike for school	.35
17.	Jealousy over attention paid other children	.40
25.	Fighting	.63
27.	Temper tantrums	.51
33.	Irresponsibility, undependability	.57
38.	Disobedience, difficulty in disciplinary control	.70
40.	Uncooperativeness in group situations	.62
44.	Hyperactivity, "always on the go"	.51
46.	Destructiveness in regard to his own & or other's property	.57
47.	Negativism, tendency to do the opposite of what is requested	.59
48.	Impertinence, sauciness	.57
51.	Profane language, swearing, cursing	.48
53.	Irritability, hot-tempered, easily aroused to anger	.59

Personality Problem (PP)

Item No.	Item	Average factor loading
5.	Doesn't know how to have fun, behaves like a little adult	.41
6.	Self-consciousness, easily embarrassed	.55
9.	Feelings of inferiority	.60
12.	Crying over minor annoyances and hurts	.33
14.	Shyness, bashfulness	.51
15.	Social withdrawal, preference for solitary activities	.56
21.	Lack of self-confidence	.60
23.	Easily flustered and confused	.53
28.	Reticence, secretiveness	.38
30.	Hypersensitivity, feelings easily hurt	.50
32.	Anxiety, chronic general fearfulness	.53
37.	Tension, inability to relax	.54
39.	Depression, chronic sadness	.48
41.	Aloofness, social reserve	.33

Inadequacy-Immaturity (II)

Item No.	Item	Average factor loading
13.	Preoccupation, "in a world of his own"	.48
20.	Short attention span	.40
31.	Laziness in school and in performance of other tasks	.41
34.	Excessive daydreaming	.46
35.	Masturbation	.31
42.	Passivity, suggestibility, easily led by others	.34
49.	Sluggishness, lethargy	.36
50.	Drowsiness	.32

Socialized Delinquency (SD)

Item No.	Item	Average factor loading
4.	Stays out late at night	.50
10.	Steals in company with others	.49
18.	Belongs to a gang	.68
26.	Loyal to delinquent friends	.48
29.	Truancy from school	.23
36.	Has bad companions	.61

"Flag" Items for Psychotic Behavior

Item No.	Item
1.	Oddness, bizarre behavior
7.	Fixed expression, lack of emotional reactivity
19.	Repetitive speech
24.	Incoherent speech

Items not scored

Item No.	Item
22.	Inattentiveness to what others say
43.	Clumsiness, awkwardness, poor muscular coordination
45.	Distractibility
52.	Nervousness, jitteriness, jumpiness; easily startled
54.	Enuresis, bed-wetting
55.	Often has physical complaints, e.g., headaches, stomach ache

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Table 4
Means and Standard Deviations of the BPC Subscales obtained from Normal and Deviant Groups

Sample	Raters	Sex	N	School Grade or age	Conduct Problem (CP)		Personality Problem (PP)		Inadequacy Immaturity (II)		Socialized Delinquency (SD)	
					X	SD	X	SD	X	SD	X	SD
Unselected public school children	Teachers	M	336	K	4.52	4.93	3.66	3.56	1.63	1.87	0.34	0.97
		M	342	K	3.71	4.44	3.69	3.19	1.67	1.81	0.27	0.74
		F	286	K	2.33	3.76	3.96	3.60	1.16	1.65	0.17	0.62
		F	281	K	1.98	3.09	3.32	3.00	1.26	1.12	0.11	0.44
		M	309	1st	4.05	4.36	2.80	3.11	1.50	1.69	0.23	0.66
		M	279	1st	4.24	4.96	3.47	3.57	1.62	2.00	0.48	1.15
		F	257	1st	1.72	2.96	2.62	2.84	0.84	0.12	0.11	0.38
		F	276	1st	2.18	3.34	3.20	2.91	1.21	1.71	0.20	0.62
		M	294	2nd	4.20	4.64	3.01	3.09	1.76	1.88	0.34	0.88
		M	273	2nd	4.12	4.76	2.89	3.19	1.61	1.79	0.48	1.07
		F	297	2nd	1.95	3.30	2.71	3.16	1.09	1.62	0.19	0.58
		F	276	2nd	2.00	3.33	3.30	3.26	1.02	1.54	0.21	0.71
Unselected public school children (Touliatos & Lindholm, 1975)	Teachers	M	110	K	2.57	3.53	1.85	2.80	0.88	1.54	0.09	0.35
		F	103	K	1.47	2.76	2.15	2.88	0.66	1.42	0.12	0.38
		M	237	1st	3.44	4.19	1.58	2.45	1.50	1.90	0.23	0.58
		F	180	1st	1.23	2.75	0.96	1.62	0.56	1.15	0.09	0.43
		M	198	2nd	3.82	4.28	1.88	2.49	1.40	1.74	0.30	0.75
		F	166	2nd	1.11	2.28	1.58	1.97	0.57	1.11	0.13	0.43
		M	178	3rd	4.20	4.54	2.43	3.02	1.78	2.03	0.43	1.10
		F	182	3rd	1.99	3.31	2.04	2.71	1.16	1.82	0.14	0.56
		M	185	4th	3.51	4.15	1.72	2.54	1.36	1.79	0.26	0.74
		F	175	4th	1.64	3.03	1.30	1.90	0.77	1.42	0.21	0.57
		M	142	5th	3.46	4.48	1.51	2.52	1.08	1.72	0.39	0.92
		F	141	5th	0.94	2.34	1.57	2.45	0.70	1.29	0.14	0.50
"Average" Elementary Children (Skamit, 1972)	Teachers	M	17	1st	2.94	2.58	1.47	1.66	0.94	1.34	0.53	0.60
		F	18	1st	1.61	2.56	1.33	1.88	1.11	1.35	0.38	0.44
		M	18	2nd	1.66	1.71	1.33	1.71	1.39	1.25	0.33	0.60
		F	18	2nd	2.22	2.31	1.44	1.28	1.44	1.41	0.77	0.77
		M	18	4th	2.94	1.98	1.61	1.45	1.27	1.24	0.61	0.47
		F	18	4th	1.83	1.64	1.94	1.11	1.11	0.76	0.77	0.81
		M	17	6th	4.05	2.56	2.76	2.22	1.70	1.14	0.88	0.86
		F	18	6th	2.77	2.82	1.89	1.45	1.66	1.19	0.88	0.87

Table 4 (Continued)
Means and Standard Deviations of the BPC Subscales obtained from Normal and Deviant Groups

Sample	Raters	Sex	N	School Grade or age	Conduct Problem (CP)		Personality Problem (PP)		Inadequacy Immaturity (II)		Socialized Delinquency (SD)	
					X	SD	X	SD	X	SD	X	SD
Inner-city elementary children referred for a program for behavior problems (Quay, et al 1972; Glavin, et al 1972)	Teachers		69	2 to 6 X=4.50	11.62	4.14	5.19	3.89	3.81	1.97	1.80	1.77
			48	2 to 6 X=4.17	10.33	5.26	6.04	4.00	4.00	1.82	1.80	1.70
			27	2 to 6 X=4.70	11.2	5.10	5.30	4.00	4.10	2.20	1.90	1.80
			34	2 to 6	9.90	4.70	5.80	4.40	3.50	2.60	1.20	1.90
Special class children Diagnosed Aggressive Diagnosed Hyperactive Diagnosed Withdrawn (Proger et al, 1974)	Teachers	M	39	(8-14)	9.93	4.84	5.71	3.55	2.61	1.64		
		M	31	(8-14)	10.29	5.28	6.51	3.44	2.91	2.16		
		M	32	(8-14)	6.28	5.01	8.47	2.82	3.50	2.06		
Inner-city Child Guidance Clinic cases (Goldstein, 1974)	Parents	M	130	(10-22)	11.23	3.44	7.21	1.48	3.38	1.44	0.92	1.20
		F	55	(10-89)	11.99	11.89	8.00	4.67	2.98	1.84	1.00	1.11
Children in a residential facility	Child care worker	M	66	(14.00)	10.47	5.04	7.57	4.14	4.47	2.64		
		F	14	(15.00)	8.94	5.150	7.41	3.11	3.23	4.19		
"Externalizing" Diagnoses "Internalizing" Diagnoses (Gray, Rencken & Swanson 1974)		M&F	28		10.25	4.98	6.60	1.90	4.00	2.89		
		M&F	13		7.84	3.89	8.07	4.17	3.46	2.57		
Hospitalized Adolescents Neurotic Diagnoses Character Disorder Diagnoses (Ogle, 1967)	Ward Aids	M	6		4.66	4.87	8.00	1.78	2.00	1.34		
		M	17		9.29	4.69	3.23	2.16	2.11	1.78		
Children in Special Education Classes for emotionally disturbed & learning disabled (Lindholm & Touliatos, 1976)	Teachers	M	71	K-5	6.16		1.56		1.38		0.29	
		F	35	K-5	3.80		4.80		2.65		0.17	